



THE REPUBLIC OF KENYA

LAWS OF KENYA

THE SURVEY REGULATIONS

NO. 168 OF 1994

Revised and published by the National Council for Law Reporting
with the authority of the Attorney-General as gazetted by the Government Printer

www.kenyalaw.org

Kenya

Survey Act

The Survey Regulations

Legal Notice 168 of 1994

Legislation as at 31 December 2022

Note: This is not the latest available version of this Legal Notice. [View it online.](#)

By [Kenya Law](#) and [Laws.Africa](#). Share widely and freely.

www.kenyalaw.org | info@kenyalaw.org

FRBR URI: /akn/ke/act/ln/1994/168/eng@2022-12-31

There is no copyright on the legislative content of this document.

This PDF copy is licensed under a Creative Commons Attribution NonCommercial ShareAlike 4.0 License ([CC BY-NC-SA 4.0](#)). This license enables reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator. If you remix, adapt, or build upon the material, you must license the modified material under identical terms. CC BY-NC-SA includes the following elements:

- BY: credit must be given to the creator.
- NC: Only noncommercial uses of the work are permitted.
- SA: Adaptations must be shared under the same terms.

Share widely and freely.

The Survey Regulations (Legal Notice 168 of 1994)

Contents

Part I – PRELIMINARY	1
1. Citation	1
2. Interpretation	1
Part II – THE LAND SURVEYORS BOARD	1
3. Quorum of the Board	1
4. Place of meetings, and minutes	1
5. Expenses of members	2
6. Register of Surveyors	2
Part III – THE STANDING COMMITTEE ON GEOGRAPHICAL NAMES	2
7. Chairperson and quorum	2
8. Meetings	2
9. List of names to be sent to Cabinet Secretary	2
10. Expenses of members	2
Part IV – EXAMINATIONS AND ISSUE OF LICENCES	3
11. Holding of examinations	3
12. Appointment of examiners	3
13. Persons entitled to be examined	3
14. Exemptions	3
15. Alternative qualifications	3
16. Syllabus	3
17. Pass mark	4
18. Conditions applicable	4
19. Fees	4
20. Conduct of examinations	4
21. Certificate for trial survey	4
Part V – REGULATIONS AFFECTING ALL SURVEYS MADE UNDER SECTION 22 OF THE ACT	4
22. Disputes	4
23. Units of measurement	4
24. Systems of co-ordinates and projections	5
25. Maintenance of measuring instruments	5
26. Presentation of surveys	5
27. Permissible errors of measurement	6
28. Checking of surveys	6
29. Information prior to survey	6

30. Prior approval by statutory authorities	6
31. Authority for entry upon land	6
32. Refusal of entry	7
33. Employment of approved assistants	7
34. Fees chargeable by the Director	8
35. Fees chargeable by licensed surveyors	8
36. Application to have plan prepared from existing records	8
Part VI – SURVEY MARKS, BOUNDARY BEACONS AND BOUNDARIES	8
37. Design and specification of survey marks	8
38. Placement of survey marks	9
39. Referencing of boundary beacons	9
40. Line beacons and river beacons	9
41. Placing beacons on boundary line	10
42. Beacons placed from computed data	10
43. Boundaries adjoining trust land or forest areas	10
44. When beacons cannot be placed	10
45. Damaged beacons cannot be repaired	10
46. Trigonometrical station to be repaired	10
47. Missing beacons	11
48. Re-establishment of missing beacons	11
49. Redundant beacons	11
50. Surveys and re-establishment of boundaries	11
Part VII – SURVEYS PERFORMED BY TRIANGULATION, TRILATERATION, TRAVERSE AND AIR SURVEY	11
51. Guiding principle	11
52. Geodetic and secondary triangulation	11
53. Lower order triangulation	11
54. Tertiary and minor triangulation	12
55. Instruments used for triangulation and trilateration	12
56. Method of taking triangulation	12
57. Fixing of beacons	12
58. Isolated surveys	13
59. Geodetic and secondary traverse	13
60. Lower order traverses	13
61. Angular measurement of traverses	14
62. Linear measurements of traverses	14

63. Surveys of curvilinear boundaries	14
64. Road and railway reserves	14
65. Swinging or hanging traverses	14
66. Verification of points of departure and termination of traverses	15
67. Verification of datum stations	15
68. Air survey	15
Part VIII – FIELD NOTES	15
69. Field notes to be on special forms	15
70. Recording of triangulation observations	15
71. Recording of traverse observations	15
72. Topographical features	15
73. Method of entering field notes	16
74. Erasures and corrections	16
75. Nomenclature	16
76. Cover and page index	16
77. Unorthodox methods	16
Part IX – COMPUTATIONS	16
78. Computations to be in special forms	16
79. Method of entering computations	17
80. Triangulation and trilateration	17
81. Traverse computations	17
82. Independent checks to be made	17
83. Method of computing areas	17
84. Degree of accuracy for computing areas	17
85. Presentation of computation	18
Part X – PLANS	18
86. Plans to be drawn on special forms	18
87. Scales to be used	18
88. Plotting of curvilinear boundaries	18
89. Plotting by co-ordinates	19
90. General rules for plotting	19
91. Abutting boundaries	19
92. Co-ordinates and numerical data	20
93. Triangulation and trilateration charts	20
94. Colour and style of printing	20

95. Topographical features	20
96. Erasures and corrections	21
97. Certificates	21
98. Authentication by Director	21
Part XI – DEED PLANS	21
99. Deed plans to be drawn on special forms	21
100. General rules for deed plans	21
101. Numerical data	21
102. Topographical features	21
103. Abutting boundaries	22
104. Areas	22
105. Erasures and corrections	22
106. Locality index number	22
107. Name of surveyor	22
108. Authentification	22
109. Cancellation of deed plan	23
Part XII – GOVERNMENT LAND SURVEYS	23
110. Coast foreshore reservation	23
111. Tidal river reservations	23
112. Lake reservations	23
113. Defining of reservation boundaries	23
114. Defining swamp boundaries	23
Part XIII – MISCELLANEOUS	24
115. Written evidence for Board	24
116. Public access to maps and plans	24
117. Government copyright	24
118. Repeal of regulations	24
FIRST SCHEDULE [r. 14]	24
SECOND SCHEDULE [r. 16]	24
THIRD SCHEDULE [rr. 13 & 14]	25
FOURTH SCHEDULE [r. 30, L.N. 133/2020, r. 10]	27
FIFTH SCHEDULE [r. 34, L.N. 96/1999, r. 2]	27
SIXTH SCHEDULE [rr. 34]	28
SEVENTH SCHEDULE [r. 34]	29
EIGHTH SCHEDULE [r. 35]	29

NINTH SCHEDULE [r. 33(6)] 35

SURVEY ACT

THE SURVEY REGULATIONS LEGAL NOTICE 168 OF 1994

Published in Kenya Gazette Vol. XCVI—No. 26 on 27 May 1994

Commenced on 27 May 1994

[Amended by [Survey \(Amendment\) Regulations, 1999 \(Legal Notice 96 of 1999\)](#) on 16 July 1999]

[Amended by [Survey \(Amendment\) Regulations, 2020 \(Legal Notice 133 of 2020\)](#) on 24 July 2020]

[Amended by [Survey \(Amendment\) Regulations, 2020 \(Legal Notice 223 of 2020\)](#) on 22 January 2021]

[Revised by [24th Annual Supplement \(Legal Notice 221 of 2023\)](#) on 31 December 2022]

Part I – PRELIMINARY

1. Citation

These Regulations may be cited as the Survey Regulations.

2. Interpretation

In these Regulations, except where the context otherwise requires—

"approved assistant" means any person other than a licensed surveyor who assists a licensed surveyor in the execution of field surveys, but does not include skilled and semi-skilled chainmen and labourers;

"forest area" means any area of land declared under section 4 of the Forest Conservation and Management Act (Cap. 385) to be a forest area;

"survey" means any survey made under the Act.

Part II – THE LAND SURVEYORS BOARD

3. Quorum of the Board

- (1) The quorum for a meeting of the Board shall be one half of all the gazetted members, of whom the Chairperson, or deputy Chairperson, shall be one.
- (2) At every meeting of the Board each member shall have the right to one vote on any matter under discussion:

Provided that in the event of the voting for and against being equal the Chairperson shall have a casting vote.

4. Place of meetings, and minutes

- (1) The Board shall normally meet four times in a year in the Survey Office in Nairobi:
Provided a special meeting of the Board may be called by the Chairperson or by at least one-half of the members of the Board.
- (2) The Secretary shall keep minutes of all meetings of the Board in a minute book kept for that purpose, which shall be preserved in the Survey Office when not in use.

- (3) The Secretary shall notify every member of the Board of every meeting not less than fourteen days before the date fixed for the meeting.

5. Expenses of members

- (1) The members of the Board and the secretary may claim travelling and subsistence expenses for attendance at meetings, in accordance with these Regulations and at the rates for the time being in force in respect of such allowances to Government officers.
- (2) All claims under paragraph (1) shall be made in such form as the Director may determine, and shall be addressed to the Secretary.

6. Register of Surveyors

There shall be a register of all surveyors registered under the Act which shall be maintained in an electronic format in the Survey Office, and the register shall contain the following particulars of the surveyors so registered—

- (a) name and permanent address;
- (b) a short statement of all professional examinations passed, together with relevant numbers of certificates of examination, diplomas, degrees, licences and titles;
- (c) the date of passing examinations of the Board; and
- (d) a record of any offence committed by the surveyor under the Act, with, in every case, the Board's order and the number of any notification in the *Gazette* in connection therewith.

[L.N. [133/2020](#), r. 2.]

Part III – THE STANDING COMMITTEE ON GEOGRAPHICAL NAMES

7. Chairperson and quorum

- (1) The Chairperson shall preside at meetings, but if he is unable to attend any meeting he may nominate any other member of the committee or an officer of the Survey Department to be Chairperson at such a meeting.
- (2) The quorum for a meeting of the Committee shall be three members.

8. Meetings

- (1) The secretary shall give at least fifteen days' notice of all meetings.
- (2) The frequency of meetings shall not be fixed, but shall be determined by the amount of business to be disposed of.

9. List of names to be sent to Cabinet Secretary

The Committee shall, from time to time, send to the Cabinet Secretary a list of names which are recommended to him for approval.

10. Expenses of members

- (1) Members may claim travelling and subsistence expenses for attendance at meetings in accordance with these Regulations and at the rates for the time being in force in respect of such allowances to Government officers.

- (2) All such claims shall be in such form as the Director may determine, and shall be addressed to the Secretary.

Part IV – EXAMINATIONS AND ISSUE OF LICENCES

11. Holding of examinations

Examination of candidates for licences will be held each year at such time and such place as the Board may determine, which shall be notified in advance in the Kenya *Gazette*.

12. Appointment of examiners

- (1) The Board shall appoint a moderator and at least two of the examiners.
- (2) All papers shall be marked independently by at least two of the examiners.
- (3) The moderator shall report to the Board full particulars of the marks given to each candidate in each subject.
- (4) A report under paragraph (3) shall be in writing, signed by each examiner.
- (5) The results of the examinations shall be determined by the Board, and shall be conveyed in writing by the Secretary to the candidates within a period of six months from the date of the sitting presentation.
- (6) Examiners may claim certain travelling and subsistence expenses incurred in their duties, and all such claims, shall be in such form as the Director may determine, addressed to the Secretary.
- (7) The Secretary shall inform examiners of the scale of payment for the time being approved by the Board in respect of any claim under paragraph (6).

13. Persons entitled to be examined

No person shall be entitled to be examined for a licence unless he is eligible in accordance with section 11 of the Act, and produces the declaration or other evidence mentioned therein, which declaration shall be in Form A in the Third Schedule.

14. Exemptions

- (1) The qualifications set out in the First Schedule shall be recognised by the Board and shall entitle candidates who apply for exemption to be granted exemption from examination in the respective subjects set out in that Schedule.
- (2) Every applicant for exemption shall forward declarations in Forms A and B in the Third Schedule.

15. Alternative qualifications

The Board may accept the examinations for the East African Land Survey Certificate as set out in the East African Common Services Organization, Legal Notice No. 40, published on 30th October, 1967, and any subsequent amendments thereto in lieu of setting any similar examinations, with the exception of a Trial Survey, a written paper on Kenya Land Law and production of evidence of full membership of the Institution of Surveyors of Kenya, Chapter of Land Surveyors.

16. Syllabus

The syllabus for the Trial Survey and Law Examinations for candidates for the Kenya Land Surveyors Licence shall be as set out in the Second Schedule.

17. Pass mark

- (1) The pass-mark in the Law Examination shall be 50 percent.
- (2) Marks will not be allocated for a Trial Survey, but a candidate shall be adjudged as having either passed or failed.

18. Conditions applicable

- (1) A candidate must have had at least two years' approved training and experience in land surveying before taking the examination.
- (2) The trial survey shall be so designed that a competent candidate can complete it in ten weeks.
- (3) Candidates shall sit the Law Examination at a time to be decided by the Board.

19. Fees

Fees for the examination shall be as follows—

- (a) on application for consideration in accordance with regulation 13, KSh. 500 for a first application and KSh. 200 for every subsequent application;
- (b) on application to sit the Kenya Land Surveyors Board Law Examination KSh. 500 for the first attempt and KSh. 200 for every subsequent attempt;
- (c) on application to sit the full examination for licence, KSh. 1,000 for the first attempt and KSh. 200 for every subsequent attempt.

20. Conduct of examinations

- (1) The Board shall appoint one or more invigilators to be in attendance for any written examination.
- (2) The moderator shall submit for the approval of the Board the particulars of the Trial Survey and Law Examinations.

21. Certificate for trial survey

A certificate in Form C in the Third Schedule shall be furnished by the candidate when submitting the results of a Trial Survey.

Part V – REGULATIONS AFFECTING ALL SURVEYS MADE UNDER SECTION 22 OF THE ACT

22. Disputes

- (1) If a dispute arises between a licensed surveyor and the Director over the application of the regulations, either party may refer the matter to the Board.
- (2) The Board shall hear and determine any dispute under paragraph (1) and its decision shall be final.

23. Units of measurement

- (1) All distances shown on plans shall be in international metres and decimals of a metre.
- (2) All angular measurements shall be in degrees, minutes and seconds of arc.
- (3) For purposes of conversion from imperial feet to international metres, the relationship to be used shall be one international metre = 3.280 840 feet, or one foot = 0.3048 metres.

24. Systems of co-ordinates and projections

- (1) The figure of the earth and projection to be used in the computation of co-ordinates of any survey shall be one of the following, as the Director may specify, that is, either—
 - (a) the Universal Transverse Mercator Projection zones 36 or 37 using the Clarke 1880 (modified) figure having elements; semi-diameter-major 6,378.249 international metres ellipticity 1/293.465; or
 - (b) the Cassini-Soldner Projection calculated from origins at the intersections of odd-numbered-degree meridians with the equator and extending over successive zones of two degrees of longitude, using the Clarke 1858 figure having elements—
semi-diameter-major (6,378,351 metres) 20,926,348 imperial feet
ellipticity 1/294.26.
 - (c) any other figure as the Director may from time to time, deem necessary.
- (2) All co-ordinates required by regulations 85, 92 and 93 of these Regulations shall be listed in the same units as the datum points.

[L.N. [133/2020](#), r. 3.]

25. Maintenance of measuring instruments

- (1) The Director may issue specifications for instruments to be used for surveys and guidelines on calibration of such instruments.
- (2) Every surveyor shall record in their field notes the manufacturer's name and number of the model of the equipment used for each survey.
- (3) The Director may require a licensed surveyor to submit any measuring equipment for inspection.
- (4) The Director may on receipt of measuring equipment under paragraph (3), refuse to authenticate any survey, which has been made with inappropriate or defective measuring equipment.
- (5) The Director shall inspect and authenticate a survey within twenty-one days of the receipt of measuring equipment under paragraph (4).

[L.N. [133/2020](#), r. 4, L.N. 233/2020. r. 2.]

26. Presentation of surveys

- (1) Every licensed surveyor shall be personally responsible for the accuracy, fidelity, and completeness of every survey presented by him for the approval of the Director.
- (2) It shall be the duty of every surveyor making any survey under these Regulations to record all the relevant information that may aid in securing the accuracy and completeness of every such survey.
- (3) Every surveyor shall perform sufficient work to enable him to apply a thorough check to every part of his survey.
- (4) Every surveyor shall present his plan, computations and connected documents of every survey in such a manner as the Director, after consultation with the Board, may require, and if any surveyor forwards to the Director any plan, computation or connected document which does not conform substantially with the appropriate requirements, the Director may, at his discretion, return the plan, computations and connected documents to the surveyor and may refuse to authenticate any such plan, computation or connected document until it has been made to conform with the appropriate requirements.
- (5) All surveys returned to a surveyor shall be re-submitted to the Director without undue delay.

- (6) The director of Surveys shall not release the final documents for registration of title without express authority from the licensed surveyor who carried out the survey.

27. Permissible errors of measurement

All measurements must be made in accordance with regulations 56, 57 and 60, and the Director may refuse to authenticate any survey which contains errors in excess of those that can be expected from measurements properly carried out in the manner specified.

28. Checking of surveys

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

29. Information prior to survey

- (1) Before carrying out any survey, every licensed surveyor shall be provided, or shall provide himself, with all available information in respect of any previous survey of the plot of land to be surveyed and of any adjoining plot.
- (2) Applications to the Director for this information shall be in writing, and shall state whether the land is freehold or leasehold, and shall, whenever applicable, make reference to the approval for subdivision, or other transaction.
- (3) The Director shall make available to any licensed surveyor all technical information in his possession. Where the licensed surveyor extracts the information himself by personal search no fee will be payable, but where the information is extracted on his behalf by the Director, the fee prescribed in the Seventh Schedule shall be paid.

30. Prior approval by statutory authorities

- (1) Before submitting any survey to the Director, a licensed surveyor shall ensure that approval has been obtained for a subdivision or other transaction of any plot of land in any case where such approval is required by any Act and that the survey submitted conforms with such approval.
- (2) The Director may from time to time give guidance on the competent Authority responsible for giving approval for the subdivision of land or other transaction of any plot of land under relevant legislation.

[L.N. [133/2020](#), r. 5.]

31. Authority for entry upon land

- (1) In pursuance of section 23 of the Act, the Director shall furnish to every surveyor an official letter of authority in Form D in the Third Schedule to these Regulations and every such letter of authority shall bear the official seal.
- (2) Every surveyor shall present his letter of authority to any owner or occupier of land who demands proof that such surveyor is duly authorized to enter upon his land.
- (3) Every surveyor so authorized shall, whenever practicable, give reasonable notice to the owner or occupier of the land of his intention to enter thereon.

- (4) Whenever any tree or crops are cut or damaged by any surveyor in the exercise of any of the powers conferred by section 23 of the Act, compensation shall be calculated and paid in accordance with the following—
- the surveyor and the owner or occupier of the land shall agree upon a fair compensation for the damage done by the surveyor, and a statement of the damage done and of the compensation which is agreed upon shall be duly signed by both the owner or occupier of the land and the surveyor; or
 - where the surveyor and the owner or occupier of the land are unable to agree upon the amount of compensation payable, the surveyor shall apply to an officer of the Forest Department or of the Agricultural Department to inspect the damage done to the tree or crops, as the case may be, and to assess the amount of compensation which shall be paid; if the owner or occupier of the land thereupon agrees with the amount of compensation proposed, then both the owner or occupier and the said officer of the Forest Department or the Agricultural Department, as the case may be, shall sign a statement of the amount of compensation duly agreed upon; or
 - where the owner or occupier of the land and the officer of the Forest Department or of the Agricultural Department, as the case may be, are unable to agree upon the amount of compensation payable, a statement to this effect shall be forwarded to the Director, and the Director shall apply to the Attorney-General for the case in dispute to be referred to arbitration under the Arbitration Act (Cap. 49).
- (5) When the amount of compensation has been determined in accordance with paragraph (4) of this regulation, the agreed amount shall be paid by the Government surveyor, or by the licensed surveyor himself when he has caused the damage in question to the owner or occupier of the land:
- Provided that compensation shall not be paid for damage to trees or crops within any reservation for a trigonometrical station or fundamental benchmark which is made in accordance with section 25 of the Act.

32. Refusal of entry

If any person refuses to allow a surveyor or person authorized in accordance with section 23 of entry, the act to enter upon any land, the surveyor or authorized person shall in no circumstances use force to gain entry upon the land, but the surveyor or authorised person shall immediately report all relevant details of the obstruction to the Director.

33. Employment of approved assistants

- No licensed surveyor shall employ an approved assistant without the written approval of the Board:
Provided that the Director may give provisional approval pending decision by the Board.
- When such approval is given it shall be for a period as indicated by the licensed surveyor in the first instance and may be cancelled or renewed at the discretion of the Board.
- Such approval shall normally be limited to such number of assistants as the Board may determine in each case.
- The work done by any such approved assistant shall be under the director personal control of the licensed surveyor, who shall himself carry out a sufficient check to ensure that the work done by such assistant is correct. The licensed surveyor shall accept full personal responsibility for all work performed by the approved assistant.
- The approved assistant shall certify all field notes and computations made by him, and those field notes and computations shall be signed by the approved assistant and countersigned by the licensed surveyor.

- (6) The surveyor shall supply a certificate which shall be drawn up in the form in the Ninth Schedule to these Regulations.
- (7) If the Director finds that an approved assistant has performed any work which has not been supervised and checked by the licensed surveyor he may suspend approval for the employment of the approved assistant, and the case shall be referred to the Board whose decision on the matter shall be final.

34. Fees chargeable by the Director

- (1) The Director shall charge fees for all surveys carried out by the Survey Department in accordance with the charges prescribed in the Fifth and Sixth Schedules to these Regulations.
- (2) The Director shall charge fees in accordance with the charges prescribed in the Sixth Schedule to these Regulations for the authentication under section 32 of the Act of a plan submitted by a licensed surveyor.
- (3) The Director shall charge fees in respect of all documents issued or services rendered by the Survey Department in accordance with the charges prescribed in the Seventh Schedule to these Regulations.

35. Fees chargeable by licensed surveyors

- (1) The fees prescribed in the Eighth Schedule to these Regulations shall be charged by a licensed surveyor in respect of work done by him.
- (2) Any licensed surveyor who charges or attempts to charge or offers to do work at, or holds himself out as being prepared to do work at, a survey fee other than that which is prescribed in the scale of fees in the Eighth Schedule to these Regulations shall be guilty of an offence and liable to a fine not exceeding five thousand shillings or to imprisonment for a term not exceeding five months, or to both such fine and such imprisonment; and a licensed surveyor who is a partner in a firm which, or who is associated with a person who charges, or attempts to charge or offers to do work at, or holds himself out as being prepared to do work at a survey fee other than which is prescribed in the scale of fees in the Eighth Schedule to these Regulations shall be guilty of an offence punishable as aforesaid, unless he proves that he took all reasonable steps to prevent any such breach of this regulation.

36. Application to have plan prepared from existing records

Every person who applies to the Director to have a plan prepared from existing survey records in respect of his land shall provide a beacon certificate from a licensed surveyor to the effect that the beacons exist or have been re-established in accordance with the Survey Act.

Part VI – SURVEY MARKS, BOUNDARY BEACONS AND BOUNDARIES

37. Design and specification of survey marks

- (1) The design of survey marks shall be as specified by the Director, except in special circumstances which must be set out in the report on the survey.
- (2) When an original grant is being re-surveyed or subdivided, any beacon which does not constitute a permanent and fine mark shall be replaced by a new beacon or be referenced to a nearby witness mark.
- (3) Every new triangulation or trilateration station other than a purely auxiliary station shall be permanently marked.

- (4) In third order traverses as defined in regulation 60 of these Regulations, all traverse stations shall whenever possible be permanent points.
- (5) Where conditions do not permit the establishment of permanent traverse stations, the surveyor shall provide an alternative form of referencing, and the reason shall be stated in the surveyor's report.

38. Placement of survey marks

- (1) Boundary beacons shall be of such type as the Director may require, and shall normally be surmounted by a cairn of stones or a mound of earth.
- (2) The primary consideration in placing all survey beacons is their durability, having regard to the fineness of the mark required for the purpose.

39. Referencing of boundary beacons

- (1) All boundary beacons for which no adequate reference mark already exists, the co-ordinates of which are required by regulation 92 of these Regulations to be tabulated on a plan, shall, except as provided below, be referenced by the establishment, with adequate check, of a permanent underground mark in the vicinity of the beacon and in a position where it is least likely to be disturbed; such underground mark may be a permanent control station established under regulation 37 of these Regulations:

Provided that two existing nearby beacons may be used instead of one underground mark.

- (2) The guiding principle in the placing of reference marks is the necessity to provide a ready and accurate means of re-establishing the beacons of the property as well as to provide the basis for any future survey, and the surveyor shall ensure that this requirement is met in a reasonable manner.
- (3) With a view to facilitating the location of isolated boundary beacons, such beacons shall, in addition, be referenced to any nearby telephone pole, suitable tree or other prominent physical feature.
- (4) In order to maintain a record of reference marks, the surveyor shall verify the position of any previously placed reference marks at beacons involved in his survey, and shall record the appropriate measurements in the field notes.

40. Line beacons and river beacons

- (1) Where a rectilinear boundary intersects a curvilinear boundary, and a beacon cannot be placed at the intersection, a beacon shall be placed on the rectilinear boundary as near as is practicable to the intersection. Such beacon shall be known as a line beacon.
- (2) Where the rectilinear boundary continues on both sides of the curvilinear boundary, a line beacon shall be placed on both sections of the rectilinear boundary.
- (3) Where the curvilinear boundary falls within a river or swamp, the line beacon shall be placed above flood level and shall be known as a river beacon.
- (4) Distances from line or river beacons shall be measured to the precision required by regulation 88(3).
- (5) All subdivisions of a property (including any remainder) which are situated across a road or railway reserve shall be fully beacons as self-contained units.
- (6) When a curvilinear feature is adopted as a sub divisional boundary the several subdivisions and any remainder shall be fully beacons as self-contained units.

41. Placing beacons on boundary line

- (1) Where a beacon is placed on a boundary line, it shall be proved to be on line by establishing either directly or indirectly its relationship with the terminal beacons of the line.
- (2) Where no rectilinear boundary of a subdivision coincides in whole or in part with any perimeter boundary of the land being subdivided, the relationship of the subdivisional beacons to at least two of the perimeter beacons shall be directly or indirectly established.

42. Beacons placed from computed data

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

43. Boundaries adjoining trust land or forest areas

- (1) Where any area of land which shares a common boundary with an area of trust land is surveyed, that common boundary shall be defined by intervisible beacons.
- (2) Where any land adjoining any boundary of a forest area is surveyed, the common boundary shall be surveyed and defined by beacons placed thereon at reasonable intervals, so that the boundary can be easily identified.
- (3) Where the common boundary surveyed as aforesaid has been cut through forest, beacons need not be intervisible, but they shall be intervisible when the boundary passes through glades or scattered bush.

44. When beacons cannot be placed

- (1) When the corner of a plot of land coincides with the corner of a permanent building, such corner shall be surveyed and it may be adopted as the beacon.
- (2) Where the corner of a plot of land does not coincide with the corner of a permanent building but is in such close proximity to it that a standard boundary beacon cannot be established, such corner of the building shall be surveyed and its position relative to the plot corner established.
- (3) When the corner of a plot of land falls within inaccessible ground, where a beacon cannot be placed, the position of such corner shall be permanently referenced by at least one indicatory beacon placed on a boundary line as near as possible to the corner.
- (4) In all the above situations details shall be indicated on the plan.
- (5) When the corner of a plot of land is occupied by a permanent and easily recognized mark, such as a substantial fence-post and fencing or a tree, such corner shall be referenced by at least one permanent underground mark.

45. Damaged beacons cannot be repaired

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

46. Trigonometrical station to be repaired

- (1) Every surveyor engaged on Government work who discovers any trigonometrical station to be damaged and in need of repair shall carry out such repair as may be necessary.
- (2) A licensed surveyor not engaged on Government work is not required to repair any damaged trigonometrical station, but he shall report in writing to the Director the name, number and position of such station and the nature of the damage which he has observed.

47. Missing beacons

Missing beacons shall be noted in the surveyor's report (regulation 85(a) refresh), and in order to demonstrate that he has searched in the right place the surveyor shall furnish such measurements and observations as may be needed.

48. Re-establishment of missing beacons

- (1) If a surveyor is required to re-establish a missing beacon he shall submit his field notes, computations, and report, to the Director.
- (2) Normally such survey shall be carried out in conformity with the provisions of these Regulations covering the determination of new beacons, having regard to all other evidence, but in special cases such as within the areas of the compass surveys in the Coast Province, the Director may authorize methods and make alternative requirements.

49. Redundant beacons

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

50. Surveys and re-establishment of boundaries

- (1) In every survey of land, where the position of an existing beacon is found to differ materially from that indicated by the relevant previous survey, the surveyor shall exercise the greatest care—
 - (a) in establishing that the discrepancy actually does exist; and
 - (b) in collecting all evidence which may have a bearing on the eventual action to be taken.
- (2) A careful search shall be made in the position indicated by the previous survey to ascertain whether or not any evidence of an old beacon or its reference marks still exists, and the position of any buildings or other development shall be recorded.
- (3) Where the situation allows, the surveyor, before taking further action, shall provide the Director with a full report, and shall request instructions.

Part VII – SURVEYS PERFORMED BY TRIANGULATION, TRILATERATION, TRAVERSE AND AIR SURVEY

51. Guiding principle

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

Triangulation and Trilateration

52. Geodetic and secondary triangulation

All geodetic and secondary triangulation shall be carried out under the control of the Director, and shall normally be performed by Government surveyors.

53. Lower order triangulation

- (1) All new triangulation and trilateration of lower order than geodetic or secondary required to provide general control for cadastral surveys shall be brought into harmony with existing control by methods conforming with current survey practice.

- (2) When issuing survey data for such work to a licensed surveyor, the Director may recommend either a particular sequence in the computation of new work or any special computations which the circumstances may require, and it shall be the duty of a licensed surveyor so informed not to depart from the Director's recommendation without reasonable cause.

54. Tertiary and minor triangulation

For the purpose of regulations 55 and 56, tertiary triangulation means triangulation established to an accuracy which makes it suitable for use as a basis of further triangulation; minor triangulation means triangulation established to a lower accuracy and suitable only as a basis for fixing local traverses and beacons.

55. Instruments used for triangulation and trilateration

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

56. Method of taking triangulation

- (1) The minimum requirement for tertiary and minor triangulation shall be two arcs observed on different zeros:
Provided that two rounds observed in different zeros may be sufficient for observations to points situated less than two kilometres distant.
- (2) An arc of angular observations for triangulation shall consist of two rounds observed in opposite directions on the same zero, one round being on face left and the other on face right.
- (3) For each arc a suitable reference stating shall be selected and both rounds of the arc shall be closed on to it, and the misclosure of each round shall be appropriate to the class of theodolite used.
- (4) The difference between measurements of any angle on different arcs shall be appropriate to the class of theodolite used.
- (5) Where electronic distance measuring equipment is used, sufficient observations shall be taken to eliminate any ambiguities, and achieve the accuracy required by regulation 27.

57. Fixing of beacons

- (1) Triangulation, trilateration, or a combination of these techniques for determining the position of beacons shall be carried out in accordance with the procedure laid down in regulations 53 to 56 of these Regulations and the method of computation shall conform with current standard survey practice.
- (2) Beacons may also be fixed by—
 - (a) intersection, provided at least three suitable rays are observed on to the point to be fixed;
 - (b) re-section, provided at least four points in favourable positions for such fixing are observed;
 - (c) any other method which is capable of fixing a point with no less accuracy than that of the methods of intersection and re-section:

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

58. Isolated surveys

In areas where no triangulation exists, the datum shall consist of an astronomically determined position and azimuth, but in special circumstances the Director, may give written approval for the adoption of local origin and bearings based on a magnetic orientation.

- (a) Such isolated surveys shall, wherever possible, be made by triangulation, and a base-line shall be measured to provide the length of the first side.
- (b) Generally, the base-line shall be in length not less than one fourth of the greatest distance across the area to be surveyed.
- (c) When a measuring band is used, such base-line shall be measured at least twice, and in two or more sections not necessarily in one straight line. The several sections shall be compared with one another through subsidiary triangles.
- (d) If, after all appropriate corrections have been made, the difference between any two measurements exceeds one part in 12,000 of the measured distance, the base shall again be measured until the resultant difference between any two measurements does not exceed this limit.
- (e) When electronic distance measuring equipment is used, the measurements shall conform with the requirements of regulation 56(5).

Traverse Surveys

59. Geodetic and secondary traverse

All geodetic and secondary traverses shall be carried out under the control of the Director and shall normally be performed by Government surveyors.

60. Lower order traverses

- (1) (a) All main control traverses in built-up areas shall be observed to third order standard.
- (b) All such lines shall be double-chained, and field operations shall be appropriate to a standard of accuracy of not less than 1:20,000.
- (2) (a) All other control traverses shall be observed to fourth order standard.
- (b) Field operations for such surveys shall be appropriate to a standard of accuracy of 1:10,000, but computational misclosures shall be allowed to the same degree of accuracy as the datum supplied by the Director.
- (c) A surveyor shall not use a loop traverse closing on his starting point if it is practicable to traverse between two previously fixed stations.
- (d) When a surveyor is unable to close his work within the limits prescribed by the Director, the Director may at his discretion authorize or instruct the surveyor to accept a lower order of misclosure, otherwise he shall close his new work by a loop traverse, orientation being confirmed in a satisfactory manner.
- (3) (a) The survey of curvilinear boundaries such as roads, railways, rivers, high-water marks, etc., shall be made by subsidiary traverse or by air-survey methods:
 Provided that this regulation shall not preclude any more accurate method.
- (b) Such surveys of curvilinear boundaries shall be carried out to a standard of accuracy appropriate to the plotting scale of the plan of the survey.
- (4) Where traverses are extremely short, a reasonable misclosure shall be allowed irrespective of the minimum requirements under these Regulations.

61. Angular measurement of traverses

- (1) A theodolite permitted by regulation 55(2) shall be used for all traverses other than subsidiary traverses.
- (2) Angular measurements for subsidiary traverses may be made either with a theodolite or a compass of approved pattern, subject to the necessity to achieve the standard of accuracy required by regulation 60 (3)(b) of these Regulations. If a compass is used, both forward and back observations must be observed at each station.
- (3) At every traverse station in other than subsidiary traverses, not less than two rounds on different faces and different zeros shall be observed. It is not necessary to close the rounds on to a reference station.
- (4) The first round at each station shall be set, when possible to the general orientation which is to be used throughout the survey.

62. Linear measurements of traverses

- (1) All linear measurements of third and fourth order traverses shall be measured using equipment and methods appropriate to the standards of accuracy specified in regulation 60 of these Regulations.
- (2) Slopes shall be determined by a theodolite, with a degree of precision appropriate to the standards specified in regulation 60 of these Regulations, and where the slope is in excess of 10° the theodolite shall be read on both faces.
- (3) All measurements shall be reduced to the horizontal at mean sea level and corrected for temperature and sag.

63. Surveys of curvilinear boundaries

- (1) In survey of curvilinear boundaries by the tacheometric method, distances determined by staff readings shall normally not exceed 200 metres and all three stadia readings on the staff shall be recorded.
- (2) Offsets substantially exceeding 75 metres in surveys of plots over 10 hectares in area, and exceeding 50 metres in surveys of smaller plots, shall be set out instrumentally and the method recorded in the field notes.
- (3) If a surveyor wishes to adopt an existing survey of a curvilinear boundary for a sub-divisional survey, he shall first obtain the consent of the Director.

64. Road and railway reserves

- (1) A road or railway reserve boundary shall be taken as a line parallel to the centre line of the road or railway at such distance from it as may be specified.
- (2) When an area fronts on to a railway reserve, and the approved scheme of subdivision or grant demands that the boundary between the property and the railway reserve be demarcated by straight lines, this boundary shall be defined by one or more straight lines, not exceeding 30 metres each in length, beacons being placed at the specified distance from the centre line:

Provided that the Director may relax this requirement where he considers that such relaxation will not materially affect the definition of the reserve.

65. Swinging or hanging traverses

Swinging or hanging traverses unsupported by independent checks shall not be used.

66. Verification of points of departure and termination of traverses

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

67. Verification of datum stations

Where a traverse station is converted for use as a boundary beacon, or where a previously co-ordinated traverse station is used to place a boundary beacon, the surveyor shall verify the station by observations and measurements, and shall record them in his field notes.

*Air Survey***68. Air survey**

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

Part VIII – FIELD NOTES**69. Field notes to be on special forms**

- (1) The Director may specify the forms and formats for making field notes.
- (2) Licensed surveyors shall pay to the Director the cost price of any blank forms supplied to them by the Director.

[L.N. [133/2020](#), r. 6.]

70. Recording of triangulation observations

- (1) At each triangulation station every surveyor shall, when taking observations, record in his field notes the date, the time, the weather conditions and the degree of visibility.
- (2) When it is necessary, for any reason, for a surveyor to divide his observations, at any station into two sets, the second set shall incorporate at least two stations which have been observed in the first set.

71. Recording of traverse observations

- (1) All traverse observations and measurements shall be recorded in the field notes, in the sequence in which they are observed or measured.
- (2) A full description of every beacon and other mark used in the course of survey, whether placed, found and used, or adopted, shall be recorded in the field notes.

*Topographical Features***72. Topographical features**

- (1) Sketched topographical features shall be recorded where possible, and with special care in the vicinity of a beacon to facilitate its location.
- (2) All developments on any plot, such as buildings, wells and boreholes, and any other development, such as pipelines which in the surveyor's opinion may involve a question of easement, right-of-way or any prescriptive rights, shall be surveyed.

73. Method of entering field notes

- (1) All observations and measurements made in the field shall be recorded clearly and legibly in hard pencil, and shall be in such manner as the Director may require.
- (2) All entries in field notes, which are not made in the field shall be written in blue or blue-black ink.
- (3) All entries in field notes shall be indexed and referenced in such a way that any competent person may be able to prepare a true plan therefrom, and they shall be in such form that they have only one reasonable and correct interpretation.

74. Erasures and corrections

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

75. Nomenclature

- (1) The letters, names, or numerals, by which any beacon or survey mark is identified in field notes shall be in plain roman or italic script.
- (2) In choosing suitable descriptions, surveyors shall take care to avoid nomenclature which is likely to lead to confusion, and the letters, I, O, S, and Z, shall not be used.

76. Cover and page index

- (1) The cover page of field notes shall be completed with such information as the Director may require.
- (2) This information shall include the standard temperature and tension for the measuring band used in the survey and, where measurements have been made in catenary, the weight per 100 feet (or other standard length) of the measuring band.
- (3) The pages of field notes shall be numbered, and an index in alphabetical and numerical order of all observations and measurements in the field notes shall be given on the reverse of the cover page.

77. Unorthodox methods

When any surveyor is compelled to used unorthodox methods of survey owing to obstructions or difficulties in the field, he shall give explanatory notes and, where necessary, diagrams in his field notes, to explain clearly the method which he has used and recorded.

Part IX – COMPUTATIONS**78. Computations to be in special forms**

- (1) The Director may specify the forms and formats for making computations.
- (2) Licensed surveyors shall pay to the Director the cost price of any blank forms supplied to them by the Director.

[L.N. 133/2020, r. 7.]

79. Method of entering computations

Computations shall be clearly and legibly set out in ink, and the entry of numbers or words to indicate checks on the computations shall be made in pencil or in a different coloured ink; provided that red ink shall be reserved for the use of the Director. Where computer facilities are used, the print-out must conform to the requirements of the Director of Surveys.

80. Triangulation and trilateration

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

81. Traverse computations

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

82. Independent checks to be made

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

83. Method of computing areas

- (1) Rectilinear areas shall be computed mathematically.
- (2) When a portion of the boundary of a property is a curvilinear boundary, the area of the property shall be determined partly by computing from co-ordinates and partly by planimeter determination from a large scale drawing of the curvilinear boundary, in conformity with regulation 88 of these Regulations.
- (3) If necessary, the co-ordinates of accurately scaled points on the drawing of the curvilinear boundary shall be used in the computation, in order to reduce to a minimum the effect of plotting and other errors on the area determined by the planimeter.

84. Degree of accuracy for computing areas

Areas shall normally be calculated to the degree of accuracy specified in the following table:

Plots not exceeding 1 hectare	0.0001
Plots over 1 hectare and up to 10 hectares	0.001
Plots over 10 hectares and up to 1,000 hectares	0.01
Plots over 100 hectares	0.1

85. Presentation of computation

The computations of every survey submitted shall be preceded by—

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

Part X – PLANS

86. Plans to be drawn on special forms

- (1) The Director may specify the manner and format in which plans may be drawn.
- (2) Licensed surveyors shall pay to the Director the cost price of any plan forms supplied to them by the Director.

[L.N. [133/2020](#), r. 8.]

87. Scales to be used

- (1) Plans shall be plotted at one of the standard scales tabulated in regulation 89.
- (2) The scale shall be selected so that all essential detail is clearly shown, and the plan area of any parcel shall not be less than 5 square centimetres:

Provided that, in a survey comprising both large and small parcels, enlargements of the small parcel(s) may be shown in inset(s) at a larger scale than that of the main plan.

88. Plotting of curvilinear boundaries

- (1) Curvilinear boundaries of any property not exceeding 1,000 hectares in extent, being boundaries which have been fully surveyed, shall be plotted accurately on scale not smaller than 1 in 5,000; for larger areas the Director shall specify the scale to be used.
- (2) Where the consent of the Director has been obtained to the adoption of an existing survey of a curvilinear boundary, the surveyor shall—
 - (a) make an accurate reduction of the larger scale plan for use at a smaller scale; or
 - (b) make an accurate transfer for use at the same scale; or
 - (c) re-plot from the original field notes and computations for use at a larger scale.
- (3) Where a rectilinear boundary intersects a curvilinear boundary and the provisions of regulation 40(1) and (2) are applicable, the distance from each line or river beacon to the intersection shall be shown to the nearest metre, but the distances between successive beacons along the rectilinear boundary shall be shown to the degree of precision required by regulation 92(3).
- (4) A curvilinear boundary shall be distinctively described.

89. Plotting by co-ordinates

- (1) All plans shall be plotted by rectangular co-ordinates.
- (2) A plotting grid of squares covering the surveyed area shall be drawn in blue or such other colour as the Director may require as such, that grid line values shall be multiples of the metric intervals shown in the following table:

Provided that where regulation 24(2) requires co-ordinates to be expressed in feet, the line values shall be multiples of the foot intervals in the table.

	Scale	Metres	Feet
1:	250	25	100
1:	500	50	200
1:	1,000	100	500
1:	2,500	250	1,000
1:	5,000	500	2,000
1:	10,000	1,000	5,000
1:	25,000	2,500	10,000
1:	50,000	5,000	20,000
1:	100,000	10,000	50,000
1:	250,000	25,000	100,000

- (3) Every plan shall contain at least one complete grid square and no square shall have sides exceeding 20 cm. in length.

90. General rules for plotting

- (1) Every detail shown on a plan shall be distinct, and the camping of figures shall be avoided.
- (2) The north point on every plan shall be upwards, and parallel to the sides of the plan form.

91. Abutting boundaries

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

- (2) Where the plot or plots adjoin a surveyed road or railway reserve, and when the scale of plotting permits, the boundaries abutting on to the opposite side of the reserve shall be shown.

92. Co-ordinates and numerical data

- (1) In every survey the co-ordinates of block corners of regular shaped figures, of permanent control and numerical stations, and of all beacons of irregular-shaped figures shall be shown on the plan.
- (2) The length and bearing of every boundary shall, when possible, be inscribed along the lines to which they refer, and such lengths and bearings shall be deduced from the final co-ordinates as tabulated on the plan.
- (3) In surveys of all properties the lengths and co-ordinates shall be shown to two decimal places of a metre.
- (4)
 - (a) The area of every plot shall be inscribed where possible within the figures to which it refers to the degree of accuracy prescribed for the net area by regulation 84 of these Regulations.
 - (b) Areas shall be shown as follows—
 - (i) area..... ha. (approx.)
 - (ii) when reserves are to be deducted—
 - total area..... ha. (approx.)
 - less reserve..... ha. (approx.)
 - net area..... ha. (approx.)
 - (c) Sufficient space shall be left for the plot number and the deed plan number to be inserted by the Director.
 - (d) No plot number shall be inserted by any surveyor.
- (5) All data of any unco-ordinated connexions as prescribed in regulation 39 of these Regulations and of terminal and perimeter connections as prescribed in regulation 41 of these Regulations, and of connexions to building corners as prescribed in regulation 44 (2), and any other data which serve to clarify or to complete any survey plan, shall be shown on the plan.

93. Triangulation and trilateration charts

When surveys have been made by triangulation or trilateration or a combination of these techniques, a chart drawn on a separate plan form shall be made showing all rays observed and/or measured. Such charts shall show a tabulated list of final co-ordinates of all permanent control points:

Provided that it shall not be necessary to draw a separate plan where the control points have been surveyed by methods permitted by regulation 57(2).

94. Colour and style of printing

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

95. Topographical features

- (1) All topographical features have been accurately fixed by survey, or have been sketched with reasonable precision, in accordance with regulation 72 of these Regulations, shall be shown in their correct plotted positions of the plan.
- (2) When roads have not been surveyed with the same accuracy as other features, they shall be marked "approximate only".

- (3) When form lines add nothing of significant value to the plan, they shall not be shown.
- (4) Topographical information may be taken from any official map published by the Director, or any authority approved by the Director with due caution in regard to the limitations enjoined by the scale of the map.
- (5) Where topographical information is taken from aerial photographs or other remotely sensed data, the source shall be quoted on the plan.

96. Erasures and corrections

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

97. Certificates

The certificate on every plan form shall be signed and dated by the surveyor who has made the survey.

98. Authentication by Director

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

Part XI – DEED PLANS

99. Deed plans to be drawn on special forms

- (1) Deed plans shall be drawn in waterproof ink on such forms as the Director may require, and shall be used by every surveyor.
- (2) Licensed surveyors shall pay to the Director the cost price of any forms supplied to them by the Director.
- (3) Deed plans for initial grants of Government land shall normally be prepared by the Director.
- (4) Printed deed plans may be used in such circumstances as the Director may decide.
- (5) Except where the contrary is expressly stated in the documents of the case issuing from the Commissioner of Lands, deed plans for the purpose of surrender, regrant, change of user, or consolidation, may be prepared by a licensed surveyor.
- (6) Regulations 44(4), 87, 88(3), 90(1), and 98 of these Regulations shall apply to deed plans.
- (7) The director shall specify the quality of the deed plan material to be used.

100. General rules for deed plans

All deed plans shall be drawn in accordance with the requirements of the Director.

101. Numerical data

The Director shall specify the nature of the numerical data to be shown on the deed plan.

102. Topographical features

Topographical features and details of development, except as prescribed by regulations 44(4) and 88(3) shall not be shown on deed plans.

103. Abutting boundaries

Abutting boundaries shall be shown in the manner laid down in regulation 91 of these Regulations.

104. Areas

- (1) Areas shall be shown in the manner specified in regulation 92(4).
- (2) When two or more properties are combined in one Certificate of Title, the total shall be given as in regulation 92(4)(a) and (b), and beneath such total each area must be tabulated separately as follows—

L.R. No. area..... ha. (approx.)

L.R. No. area..... ha. (approx.)

L.R. No. area..... ha. (approx.)

Total area ha. (approx)

- (3) All the areas shall be quoted to the precision for the total area by regulation 84 of these Regulations.

105. Erasures and corrections

- (1) No erasures shall be made on a deed plan.
- (2) Corrections shall not exceed three in number on any one deed plan, and shall be effected by scoring through the incorrect letter, word, or numeral.
- (3) Such corrections shall be initialed by or on behalf of the Director and not the surveyor.

106. Locality index number

The general locality of any plot of land shall be given by reference to the nearest urban area or railway station and to the standard topographical sheet.

107. Name of surveyor

Deed plans prepared by or on behalf of a licensed surveyor shall have his name printed on the bottom left-hand corner of each copy.

108. Authentification

- (1) Deed plans shall be prepared in duplicate.
- (2) One copy shall be authenticated by bearing thereon the signature of the Director or of a person authorized by him, together with the date of signature. The other copy shall bear the printed name of the person who signed the authenticated copy, together with the date of signature and the imprint of the official seal.
- (3) The signed copy of every deed plan shall be deposited with the Director, and shall be the official copy, and the evidence contained in his official copy, read with the authenticated survey plan upon which it has been based, shall prevail in every case.
- (4) The Director may at his discretion prepare and issue a duplicate copy of a deed plan that has been mislaid or lost. Such copy shall bear the signature of the Director or of a person authorized by him, together with the date of signature and the imprint of the official seal and the words "Certified True Copy".

109. Cancellation of deed plan

- (1) In accordance with section 33 of the Act, any deed plan which is withdrawn by the Director shall be cancelled by him, and evidence of the cancellation shall be the word "Cancelled" inscribed on the deposited copy supported by the signature of the Director, or of a person authorized by him.
- (2) The duplicate and triplicate copies of a cancelled deed plan shall, whenever available, be withdrawn from the person in whose custody they are kept, and shall be destroyed.

Part XII – GOVERNMENT LAND SURVEYS**110. Coast foreshore reservation**

- (1) Where unalienated Government land fronting on the area coast is being surveyed for alienation, a strip of land not less than 60 metres in width shall normally be reserved above high-water mark for Government purposes:
Provided that, if the interests of development require, the Cabinet Secretary may direct that the width of this reservation shall be less than 60 metres in special cases.
- (2) High-water mark in all cases in these Regulations means the Mean High Water Mark of Spring Tides.

111. Tidal river reservations

On all tidal rivers a reservation of not less than 30 metres in width above high-water shall be made for Government purposes:

Provided that, the Cabinet Secretary may direct that the width of this reservation shall be less than 30 metres in special cases.

112. Lake reservations

For boundaries fronting on lakes, a reservation of not less than 30 metres in width from the water edge at ordinary high-water shall be made for Government purposes:

Provided that, if the interests of development require the Cabinet Secretary may direct that the width of this reservation shall be less than 30 metres in special cases.

113. Defining of reservation boundaries

When surveying the reservations referred to in regulations 110, and 112 of these Regulations, a surveyor may make each boundary a straight line or a series of straight lines at a distance approximating closely to the specified distance from the feature for which a reservation is needed.

114. Defining swamp boundaries

- (1) Where an area fronts on a swamp, a give-and-take straight line boundary shall be adopted wherever possible.
- (2) Indefinite median lines, which cannot be re-established by survey, shall be avoided.
- (3) Swamps of an average width of 150 metres or more shall be excluded from farms, and a straight line boundary along the edge of the swamp shall be surveyed and beaconed.

Part XIII – MISCELLANEOUS

115. Written evidence for Board

The evidence of the matters specified in subsection (1) of section 12 of the Act required by that subsection to be produced, shall be such written evidences as satisfies the Board as to those matters.

116. Public access to maps and plans

- (1) Any person shall have access, free of, to every published map and plan in the possession of the Director:
Provided that the Director or his representative may refuse access as he may deem necessary in the public interest.
- (2) A search fee of one hundred shillings per plan shall be paid in advance by any person who is not a licensed surveyor or not on Government duty, for access to any unpublished plan.

117. Government copyright

- (1) The Government copyright of all maps published in physical or electronic format by the Director and of all plans deposited in the survey office in accordance with the provisions of section 30 of the Act, is vested in the Director.
- (2) No person shall publish or cause to be published in physical or electronic format a copy of any map or plan of which the copyright is vested in the Director without payment of such royalty as the Director may determine in each case.

[L.N. 133/2020, r. 9.]

118. Repeal of regulations

The Survey Regulations are repealed.

FIRST SCHEDULE [r. 14]

QUALIFICATIONS GIVING EXEMPTION FROM EXAMINATION IN PRESCRIBED SUBJECTS IN THE TRIAL SURVEY AND LAW EXAMINATIONS FOR THE KENYA LAND SURVEYORS LICENCE

<i>Qualifications</i>	<i>Subject in which exemption may be granted</i>
1. Land Surveyors Licence valid in Kenya prior to the commencement of this Act.	As provided under section 12 of the Act
2. Any other qualification.	As provided under section 12 of the Act

SECOND SCHEDULE [r. 16]

EXAMINATIONS FOR ADMISSION AS A LICENSED SURVEYOR

Syllabus for the Trial Survey and Law Examinations

(a) *Viva voce* in land surveying and related matters.

(b) Trial survey

Field determination of local time, latitude, longitude and azimuth.

Provisions of adequate control to cover a rural area, the subject of further survey.

Survey of rural area referred to, including the traverse of a curvilinear boundary, and the re-establishment of a lost beacon. The curvilinear boundary may be required to be determined from air photographs supplied.

Survey of a small township area with buildings thereon, which include restoration of an old survey.

Topographical and Contour Survey.

Setting out Engineering structures.

The original field notes, computations and plans must be submitted to the Board, together with a certificate in the form prescribed in regulation 21 of these Regulations.

(c) Law Examination

A written examination on the text and application of such Acts as the Board may from time to time prescribe, and the rules, regulations and by-laws made thereunder, so far as they affect survey and the law relating to land control, land registration and title to land.

THIRD SCHEDULE [rr. 13 & 14]

PREScribed FORMS

Form A

DECLARATION

I, , solemnly and sincerely declare that has served regularly and faithfully with the Survey Department/me* as a surveyor/an approved assistant* for a period of years and months from to

The nature of his employment during the period specified is as follows -

SUMMARY OF EMPLOYMENT

Declared at this day of

19

.....
Signature

***Delete the words which are inapplicable.**

FORM B

(r. 14)

DECLARATION

I, of solemnly and sincerely declare that I am a graduate of the University of and have taken a course in land Surveying leading and that I have pursued the courses of study and have had practical experience in land surveying as set out in the summary below.

SUMMARY

Course(s) of study at from to periods of practical experience at
from to

Declared at this day of, 19.....

.....

Signature

FORM C

(r. 21)

CERTIFICATES TO BE SUPPLIED IN PRACTICAL TESTS

I,, hereby certify that I have carried out this examination without technical advice or assistance since receipt of the

instructions on

.....

Signature

FORM D

(r. 31)

LETTER OF AUTHORITY

IN EXERCISE of the powers conferred upon him by regulation 31 of the Survey Regulations, the Director of Surveys hereby authorizes (name and designation of person authorized) to enter upon any land to perform any duty which he is required to perform under the Survey Act.

Impression of

Seal of Office,

Survey of Kenya,

Nairobi.

Date

Director of Surveys

Note.—The relevant sections 23 and 38 of the Survey Act are printed for general information, on the back of this letter of Authority.

FOURTH SCHEDULE [r. 30, L.N. 133/2020, r. 10]

COMPETENT AUTHORITIES FOR THE SUBDIVISION OF LAND

Deleted

FIFTH SCHEDULE [r. 34, L.N. 96/1999, r. 2]

FEES PAYABLE FOR SURVEYS EXECUTED BY THE SURVEY OF KENYA

1. Land Registered or to be Registered under the Government Lands Act *Cap. 280*, or the Registration of Titles Act *Cap. 281*—
 - (a) For surveys and beaconing for alienation and first registration of any Government land or of any Trust land which has been set apart, the fee shall be assessed in accordance with the following formula—
 - (i) for each plot of land Sh. 10,000H (where "H" is the square root of the area in hectares, of the plot); or
 - (ii) in accordance with the Eighth Schedule, whichever is less;
 - (iii) the charge for deed plans shall be Sh. 1,000 for each set;

Provided that the fees shall be computed to the nearest Sh. 100 and the minimum fee shall be Sh. 10,000 plus 3 percent of the market value of the land; but may be reduced at the discretion of the Director to Sh. 5,000 per plot for Government or Local Government housing schemes;

Provided further that the fees may be reduced at the discretion of the Director to Sh. 1,000 per plot for Government or Local Government housing schemes.
 - (b) For mutation surveys, fees shall be assessed in accordance with the Eighth Schedule.
2. Land registered or to be registered under the Registered Land Act (*Cap. 300*)—
 - (a) For surveys for the first registration of any land except land to which the Land Adjudication Act or the Land Consolidation Act has been applied, fees shall be assessed as follows—
 - (i) For surveys executed in accordance with section 22(3) of the Act—

for each parcel of land Sh. 10,000H plus 3 percent of the market value of the land (where "H" is the square root of the area, in hectares of the parcel);

Provided that the fees shall be computed to the nearest Sh. 100 and the minimum fees shall be Sh. 10,000 plus 3 percent of the market value of the land;
 - (ii) For other surveys—

For each parcel of land..... Sh. 3,000H (where "H" is the square root of the area, in hectares of the parcel);

Provided that the fees shall be computed to the nearest Sh. 100 and the minimum fee shall be Sh. 3,000.
 - (b) For mutation survey, fees shall be assessed as follows—

for each parcel of land created by subdivision or partition Sh. 3,000H (where "H" is the square root of the area, in hectares of the parcel)—

Provided that the fees shall be computed to the nearest Sh. 100 and the minimum fees shall be Sh. 3,000.

- (c) For fixing boundaries under section 22 of the Registered Land Act (Repealed), the fees shall be assessed in accordance with the Eighth Schedule.
 - (d) For boundary disputes..... Sh. 2,000H (where "H" is the square root of the area of the complaints parcel in hectares):

Provided that the fees shall be computed to the nearest Sh.100 and the minimum fees shall be computed to the nearest Sh. 100 and the minimum fees shall be Sh. 2,000.
3. In any other case, the survey fees shall be assessed by the Director.
 4. The Director may, in his discretion, remit part or all of any payable fees under the Schedule.

SIXTH SCHEDULE [rr. 34]

FEES PAYABLE FOR THE AUTHENTICATION OF PLANS SUBMITTED TO THE DIRECTOR FOR APPROVAL

[L.N. 96/1999, r. 3.]

- (a) The following fees will be charged for the authentication of every plan submitted to the Director for approval—

for each plot of land shown on the plan Sh. 300H (where "H" is the square root of the area of the plot in hectares):

Provided that—

 - (i) fees shall be calculated to the nearest Sh. 100 with a minimum of Sh. 1,000 and a maximum of Sh. 5,000;
 - (ii) the fee for each easement shall be Sh. 1,000;
 - (iii) one-half of the above fees shall be charged for authenticating compiled plans;
 - (iv) the Director may in his absolute discretion remit part or all of any fee;
 - (v) the Director may reduce the fees for Government or Local Government housing schemes by 50 percent;
 - (vi) no fee shall be charged for the authenticating of any triangulation chart, any standard traverse chart, any additional plan which may be rendered necessary by regulation 88 of these Regulations (enlarged drawing of irregular boundaries) or any survey made for the re-establishment of beacons.
- (b) The following fee will be charged for every plan submitted to the Director for the preparation or amendment of Registry Index Maps for land to be registered under the Registered Land Act—
 - (i) for the preparation/amendment of the Registry Index Maps under fixed boundaries under section 22 of the Registered Land Act:

For each parcel of land shown on the plan Sh. 300H, (where "H" is the square root of the parcel in hectares):

Provided that the fees shall be computed to the nearest Sh. 10 and the minimum fee shall be Sh. 300;
 - (ii) for the preparation/amendment of the Registry Index Maps under general boundaries of the Registered Land Act—

for each parcel of land shown on the plan Sh. 200H, (where "H" is the square root of the parcel in hectares):

Provided that the fees shall be computed to Sh. 10 and the minimum fee shall be Sh. 200.

SEVENTH SCHEDULE [r. 34]**FEES CHARGEABLE FOR DOCUMENTS AND MATERIALS ISSUED
AND OTHER SERVICES RENDERED BY THE SURVEY OF KENYA**

The fees chargeable for documents and materials issued and other services rendered by the Survey of Kenya shall be assessed by the Director and the charges displayed under the Seal of the Survey in all Survey of Kenya offices.

EIGHTH SCHEDULE [r. 35]**SCALE OF FEES CHARGEABLE BY A LICENSED
SURVEYOR FOR SURVEYS MADE BY HIM**

[L.N. 96/1999, r. 4.]

1. Interpretation

In this Schedule, except where the context requires—

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

"hilly", in relation to land, means that the average slope is between 3 degrees and 15 degrees;

"rough", in relation to land, means that the average slope exceeds 15 degrees;

"topographical charge" means a charge designed to cover the additional cost of surveys carried out in rough country or hilly country;

"unhealthy area" means any area classified as unhealthy in the Code of Regulations published by the Government for the purposes of the computation of leave to be taken by Government officers.

2. Method of payment

- (1) (a) The charges prescribed in this Schedule shall be payable as to 75 percent of the cost on completion of the survey and the plan being deposited with the Director of Surveys, and the remaining 25 percent shall be payable when the survey has been approved by the Director of Surveys:

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

- (b) In cases where no plan is necessary the full charge shall be payable on completion of the field survey.
- (2) In large surveys, the surveyor shall be entitled to progress payment at monthly intervals throughout the period of the survey, and such payment shall be at the rate of 75 percent of the value of the work done, and shall be computed in accordance with the appropriate scale prescribed in this Schedule.
- (3) When a surveyor is unable, owing to his client's instructions, to complete either the survey or the plan, he shall be entitled to payment of the full value of the work completed.

3. Inclusive charges

Except where otherwise stated, the charges prescribed in this Schedule include the charges for—

- (a) the plan of the survey, together with the field notes, computations, and other information required by these Regulations but do not include any plan referred to in paragraph 4 of this Schedule, and

do not include any triangulation and/or trilateration charges referred to in paragraph 8 of this Schedule; and

- (b) the cost of all labour and materials, but do not include the cost of boundary marks and survey marks, which shall be charged for as prescribed in paragraph 7 of this Schedule.

4. Charge for deed plans

The charge for deed plans shall be Sh. 2,000 for each set.

[L.N. 96/1999.]

5. Travelling and subsistence allowances

- (1) The surveyor shall be entitled to recover transport and travelling charges at the rate of Sh. 80 per kilometre for necessary journeys incurred in the survey when travelling in his own transport, plus a time rate of Sh. 40 per kilometre travelled to cover the surveyor's professional time.
- (2) (i) When a journey is made by train, the transport and travelling charge shall be the cost of first class train fares, plus a time rate of Sh. 40 per kilometre travelled.
(ii) When a journey is made by air, the transport and travelling charge shall be the cost of first class air fares plus a time rate of Sh. 40 per kilometre travelled.
- (3) The surveyor shall be entitled to reasonable subsistence allowance and hotel, camp, or other accommodation expenses.

[L.N. 96/1999.]

6. Charges at daily rates

- (1) Consultancy fees shall be charged and shall not be below Sh. 5,000 per hour.
- (2) On hourly rates the surveyor's charge shall be Sh. 5,000 per hour.
- (3) The cost of labour, materials, and travelling charges, and subsistence and accommodation allowances shall be added to the fee prescribed in subparagraph (1) and (2) of this paragraph.
- (4) Hourly rates are to be charged only when the conditions are such that the other rates set out herein are inapplicable; and without prejudice to the foregoing they may be charged in the following cases—
 - (a) the preparation of plans from existing records, where no field work is required;
 - (b) interviews with officials of Government departments or local authorities;
 - (c) the preparation of additional plans or tracings, or the investigation of data required for title surveys, and not covered by any other provision in this Schedule.
 - (d) work involved when the client changes his scheme or layout after the survey has commenced;
 - (e) the location and verification of control points and beacons, and surveys to re-establish beacons, such surveys not amounting to complete resurvey;
 - (f) surveys within built-up commercial areas.

[L.N. 96/1999.]

7. Surveys within municipalities, townships, etc.

The following fees shall be charged for surveys of areas surveyed as plots of less than 10 hectares—

- (a) the basic charge shall be as prescribed in paragraph 9 of this Schedule;
- (b) the traversing charge for all traverse lines which are surveyed in accordance with regulation 60 of these Regulations for the establishment of the exterior boundaries of the land which is being surveyed, including the necessary connections to trigonometrical stations, standard traverses or

other marks, and including such traverses as are required to establish new internal boundaries, shall be charged at the following rates—

	<i>Sh.</i>
(i) third order traverses, for every 100 metres surveyed	3,000
(ii) fourth order traverses for every 100 metres surveyed	2,000
(iii) fourth order traverses, requiring tachy-metric connections or offsets to a curvilinear boundary, for every 100 metres surveyed	4,000
(iv) all subsidiary traverses	half the rates for fourth order traverses.

- (c) the station charge for every station necessarily occupied for the observation of horizontal angles shall be Sh. 1,200;

Provided that the charge shall be made once only for every such station;

	<i>Sh.</i>	<i>cts</i>
(i) third order traverses, for every 100 metres surveyed	3,000	00
(ii) fourth order traverses, for every 100 metres surveyed	2,000	00
(iii) fourth order traverses, requiring tachymetric connections or offsets to a curvilinear boundary, for every 100 metres surveyed	4,000	00
(iv) all subsidiary traverses	half the rate for fourth order traverses	

- (c) the station charge for every station necessarily occupied for the observation of horizontal angles shall be Sh. 1,200;

Provided that the charge shall be made once only for every such station;

(d) the lot charges charged for the survey of each lot shall be as follows-

(i) not exceeding 1/4 hectare -	4,500	00
upto to 10 lots	3,000	00
(ii) exceeding 1/4 hectare but not exceeding one hectare -	7,000	00
up to 10 lots		
in excess of 10 lots	5,000	00
(iii) exceeding 1 hectare but not exceeding 5 hectares -	9,000	00
up to 10 lots		
in excess of 10 lots	7,000	00
(iv) exceeding 5 hectares but not exceeding 10 hectares -	12,000	00
upto 10 lots	9,000	00
in excess of 10 lots		
(v) exceeding 10 hectares -	14,000	00
up to 10 lots		
in excess of 10 lots	10,000	00

(vi) For new roads within the survey, each 250 metres or as part thereof shall be deemed to be a lot of area in (ii) above;

(e) where a topographical charge is payable, the traversing charge, the station charge, and the lot charge shall be increased by the following percentages -

(i) where the lot is hilly, 20 percent;

(ii) where the lot is rough, 331/3 percent;

(f)(i) where it is necessary for the surveyor using his own labour to cut or clear, then to the fees set out above shall be added to the following charges for every 100 metres or part thereof, of necessary cutting and clearing

-

for light bush or long grass	1,800	00
for medium scrub	5,000	00
for heavy dense bush	10,000	00

(ii) where, by prior arrangement, the landowner supplies the labour for cutting and clearing no additional charge shall be made if such cutting and clearing is carried out to the satisfaction of the surveyor, who shall be entitled to charge for the delay to survey operations at the hourly rates set out in paragraph 6 of this Schedule, when he necessarily exercises personal supervision of the operations hereinbefore described;

(iii) where the landowner, having agreed to undertake cutting and clearing, fails to do so, the surveyor may at his discretion charge under both of sections (i) and (ii) of this subparagraph;

(g) the corner charge for every beacon, the co-ordinates of which are necessary to establish the consistency and areas of the figures surveyed, shall be Sh. 150 for each beacon;

(h) the beacon placing/fixing charge shall be—

(i) for each beacon fixed or placed in manner that its check is necessarily in-corporated in the course of other measurement or observations required for subsequent survey

(ii) for each beacon fixed or placed in such manner that its check is necessarily in additional measurements or observations not required for any subsequent survey

(i) the beaconing charge shall be, in addition to the fees set out hereinbefore in this paragraph, payable at the following rates—

(i) for every angle-iron set in concrete ... 2,000 00

(ii) for every pin set in concrete under-ground 1,500 00

(iii) for every iron pin set in concrete 1,000 00

(iv) for every iron pin not set in concrete ... 500 00

Provided, that, where excavation of coral or other rock is made for the proper erection of any items specified in paragraphs (i), (ii) and (iii) of this subparagraph, charge of Sh. 367.50 per beacon may be made;

- (j) the unhealthy areas charge shall be an increase of 25 percent added to the charges prescribed by this paragraph.

[L.N. 96/1999.]

8. Rural surveys

- (1) The following fees shall be charged for surveys in areas subdivided into plots each exceeding ten hectares.
- (2) The basic charge shall be as prescribed in paragraph 9 of this Schedule.

(3) The traversing charge for—

- (a) all fourth order traverse lines surveyed in accordance with these Regulations shall be at the following rates—

	<i>Sh.</i>	<i>cts</i>
(i) in easy country, for every 100 metres ...	1,500	00
(ii) in hilly country, for every 100 metres ...	2,000	00
(iii) in rough country, for every 100 metres	3,000	00

- (b) all subsidiary traverses shall be at half the rates for fourth order traverses;
- (c) all traverses requiring the measurements of offsets or tachymetric connections to curvilinear boundaries shall be at double the charges for fourth order or subsidiary traverses, as the case may be.
- (4) The station charge for every station occupied for the observation or horizontal angles shall be Sh. 1,000:

Provided that the charge shall be made once only for each station.

- (5) The triangulation and trilateration charges, where the survey or a proportion of the survey is carried out by these methods, shall be calculated on a time basis on rates as prescribed in paragraph 6 of this Schedule, plus a charge for the minimum necessary signals based on actual costs.
- (6) (a) Traverse connections shall be charged at the rate prescribed in subparagraph (3) of this paragraph.
- (b) Measurement of base lines shall be charged for at the rate prescribed in paragraph 7(b)(i) of this Schedule.
- (7) The cutting and clearing charges, the corner charges, the beacon placing/fixing charge, the beaconing charge, and the unhealthy areas charge, shall be as prescribed in paragraph 7 of this Schedule.

[L.N. 96/1999.]

9. Basic charges

- (a) The basic charge shall be 50 percent of the charges prescribed in paragraph 7 and 8 of this Schedule plus 3 percent of the market value of the land to be surveyed and shall also include charges made under paragraph 8 of the Eighth Schedule.
- (b) The value of the land shall be as mutually agreed between the licensed surveyor and the client or determined by a value under the Valuers Act (Cap. 532).

[L.N. 96/1999.]

10. Special charges

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

11. Charges to Government

Any taxes or charges levied by the Government shall be added to the total of the other charges.

[L.N. 96/1999.]

NINTH SCHEDULE [r. 33(6)]

HEADING CERTIFICATE FOR APPROVED ASSISTANTS

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

Signed

Licensed Surveyor