

Alignment of Old Survey to be verified.

34. In every case where a new survey is connected with an old one the surveyor shall range sufficient of the old boundary to verify the alignment thereof.

Datum of Survey to be described.

35. The datum upon which a survey is based shall be shown on the plan; if obtained by the adoption of an original boundary, the original marks found on it and the data by which they were identified shall be described in the field-book.

Limit of Angular Closure.

36. The angular closure of the points of intersections of all surveyed lines shall be shown. Should the error in closing exceed the undermentioned limits the work must be revised:—

- Rural surveys: 2 minutes of arc in open, level, or undulating country;
- 3 minutes of arc in bush or rough country.
- City and town surveys: 20 seconds of arc in lines over 10 chains in length; 90 seconds of arc in short lines.

Limiting Error of Lineal Closure.

37. Rural surveys: 2 links per mile in level and undulating country; 4 links per mile in rough and hilly country.

City and town surveys: 1 link per mile in level and undulating country; 2 links per mile in rough and hilly country.

Should the work of a surveyor exceed the above-mentioned limits such survey must be revised. As accurate surveys and a high standard of work should be the first object of surveyors, they will be expected to obtain as nearly as possible a true closure, and the accumulated error shall not exceed 10 links.

Topographical Information to be obtained.

38. In every survey the position of all buildings, improvements, tracks, watercourses, &c., on or near the line of survey shall be noted and shown on the plan.

COMPUTATIONS.

Traverses to be co-ordinated on Initial Station.

39. All traverses executed by the surveyor are to be computed and co-ordinated in terms of the meridian and perpendicular of the initial station.

Connecting Triangle.

40. The calculation of a connecting triangle is to be made and recorded upon the printed form. The co-ordinates of all stations are to be reduced to the meridian and perpendicular of the initial station of the circuit. (See Appendix D.)

Repairs to Trigonometrical Stations.

41. Surveyors shall report to the Chief Surveyor all trigonometrical stations that are seen to be dilapidated, and surveyors engaged on Government work shall renew all stations that are out of repair, or report their inability to do so. All renewed stations are to retain the same letter or number as the originals.

Measurements to be checked by Closure.

42. The measurements made on each survey shall be checked by the calculation of the difference of latitude and departure of each line, computed to tenths of links for rural and to hundredths of links for town surveys. These computations must be kept up to date so that measurements do not get in advance of this mode of check.

Computations to be forwarded.

43. Calculation of closure on the authorized forms shall be dated and signed by the surveyor, and forwarded with the field-book and plans to which they refer. The number of the field-book and of the respective pages shall be shown in the proper column of the printed form. (See Appendix E.)

Areas by Double Longitudes.

44. Areas of portions or subdivisions, except such as are rectangular, shall be accurately computed by double longitudes on the authorized printed forms. (See Appendix F.)

Limit of Fractional Quantities in Areas.

45. After computing the exact areas of portions, modifications to avoid fractional quantities, not to exceed one-sixteenth per cent. less than the exact computed area may be made in areas of rural land. The maximum number of perches by which a computed area may be modified is therefore equal to a tenth part of such area expressed in acres.