

# NEW SOUTH WALES

## DEPARTMENT OF LANDS

### SURVEY DIRECTIONS,

### 1963

Approved by the Hon. K. C. Compton, Minister for Lands on 25th, June 1963 to be effective for surveys which commence on or after 1st. October, 1963.

## Now Obsolete

**Caution:**

*This document has been prepared by scanning the original "NSW Crown Lands Office Survey Directions 1963" and using optical character recognition software to create text. There may be scanning and character identification errors within this document. Care has been taken to correct errors in reproduction, however, if there are any doubts to the correct description or interpretation, reference to the original 1963 text should be made to verify the authenticity of the text.*

## LIST OF CONTENTS

### **Index for L. S. Regs.**

General Directions	No. 1.1 to 1.20
Directions for Field Notes	No.2. 1 to 2.18
Directions for Survey of Portions	No. 3.1 to 3.32
Directions for Survey of Allotments and Sections	No. 4.1 to 4.6
Directions for Survey of Public Roads	No. 5.1 to 5.15
Directions for Marking	No. 6.1 to 6.18
Directions for Plans	No. 7.1 to 7.29
Directions for Payment of Contract fees	No. 8.1 to 8.17
Directions for Alignment Surveys	No. 9.1 to 9.27

Appendix A	Specimen plan of a Portion
Appendix B	Specimen plan of Allotments and Sections
Appendix C	Specimen plan for a Road Resumption
Appendix D	Diagrams in illustration of Alignment Survey
Appendix E	Diagram in illustration of Re-alignment Survey
Appendix F	Magnetic Declination
Appendix G	Determination of Mean High Water
Appendix H	Distinctive boundaries and symbols used on maps existing in 1959.
Appendix I	Distinctive boundaries and symbols used on new compilations
Appendix J	Reports and legend for topographical surveys of Rural Estates
Appendix K	Determination of percentage increase under Par. 8.3. (xv)
Appendix L	Authorised abbreviations.
Appendix M	Letters significant of Holdings and Reserves

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Abbreviations - Authorised for use on maps and plans, Appendix L	
Access -	
To mean high water mark	3.10
To freehold or unalienated lands, or to amenities	3.12
Accounts -	
Claims to be forwarded to the District Surveyor	1.4
Claims to be made on form	8.2 849
Method of payment	8.2
Surcharges	1.9, 1.10, 1.11
Travelling - Allowance to Contract Surveyor	8.8, 1.12, 8. 16
Accuracy -	
Angular	1.8, 2.10, 3.19, 7.14
Areas	7.17
Astronomical observations	3.19
General	1.5
Linear	1.5, 1.8, 2.11, 7.17
Acts of Parliament –	
Required by a surveyor	1.7
Agricultural capabilities -	
To be given in field notes	2.7
Alienated land -	
Entry upon by surveyor	1.13
Alignment surveys -	
Connection to trig. stations and permanent marks	9.5
Connections to Survey Co - ordination marks	9.5
Both kerb lines to be measured	9.6
Marking	9.9, 9.10
To be measured in accordance with Appendix "D"	9.11
Alignment pins to be used	9.12
Marking to be completed prior to transmitting plan	9.13
Allotments -	
Frontage	4.3
Marking	4.5, 4.6
Maximum area	4.1
Minimum area	4.2
Numbering	1.15

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Amendment of surveys -	
Cost may be recovered from surveyor	1.9
Effacement of marking	1.10
Angles -	
Accuracy required	1.8
Closing angles to be read	2.10
Areas -	
Computation	1.16
Deficiency	3.29
In Closer Settlement Subdivisions	3.30
Of allotments	4.2, 4.3
Omission of fractional quantities	7.17
Astronomical observations -	
For Azimuth	2.18, 3.17, 3.18, 3.19,
Payment for	8.7
To be shown in table on plan	7.29
Azimuth -	
Datum line	2.9, 7.7(iv)
Magnetic	2.9
Astronomical observations	3.18
Comparison	5.2, 9.5, 3.21, 3.22
Bearings -	
From reference marks, etc.	7.18
Shown on approved computation form	1.16
Shown on plan	7.14
Shown in field notes	2.10
To Trigonometrical stations	3.27
Boundaries -	
Definition of, (general)	1.19
Along watercourse, water race or easement	3.3
Clearing	3.4, 3.5
Marking	3.6
Bank of non - tidal stream	3.8
Frontage to cliffs, lakes, etc.	3.9
High water mark	3.10
Inaccessible	3.11
Roads along portion boundaries	3.13
Intersection with measured roads	3.14, 5.3
Fences near boundaries	5.3(iii), 5.6, 9.7
Encroachments or discrepancies	7.7(vii)
Delineation on plan	7.7(xiii), 7.8

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Fees for measurement of	8.3
Closure of survey -	
To be in accordance with requirements of Survey Practice Regulations	1.5
Certificate -	
To be endorsed on plan by surveyor	7.24
Comparison of Azimuth-	
Payment for	8.6
Connections -	
To previous surveys	3.22, 7.28
To Survey Co - ordination permanent marks	9.5
To Trigonometrical stations	3.27, 9.5
To nearby portions	3.28
Delineation on plans	7.8
Payment for	8.3, 8.4
Corners -	
Fixation of, near a watercourse	3.8
Marking of section	6.3, 6.15
Marking of allotment	6.2, 6.14
Marking of, in rock	6.7, 6.8, 6.16
Marking of, in country portions	3.2, 3.3, 6.17
Particulars of old, to be given on plan as found	7.7(ii), 7.15
Payment for marking	8.3
Payment for obliterating, in cancelled surveys	8.3(ix)
Reference to on plan	7.18
Corner Trees	
Marking of, in surveys	3.2
Reference to, in field notes	2.12
Correspondence -	
To be forwarded to the District Surveyor	1.4
Country portions -	
Clearing of boundary lines	3.4
Corners, marking	3.2, 3.3, 3.8
Frontage to streams etc.	3.8, 3.9, 3.10
Trees on or near boundaries	3.5
Unfenced, placing of line pegs or marks	3.6
Permanent and reference marks	3.7
Rock on boundary or at corner	6.7, 6.8
Scale of plans of	7.4

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Creek -	
Separating portions	3.28
Position and name of	2.8, 7.7, 7.10
Crown leases -	
Miners Rights within	3.23, 3.24
Co - secants -	
To be shown on plan when road is more than 2 chains wide	7.9
Daily rates - Remuneration by	8.9
Deficiency in area - Not permitted	3.29
Diagrams -	
To be provided in field notes	2.6
Use on plan	7.22
Direction indicators, lockspits	6.5, 6.6
District increase in fees for certain counties	8.16
District Surveyor -	
Definition of term	1.2
Authority to issue instructions	1.3
All official correspondence to be forwarded to	1.4
May reject unsatisfactory survey	1.8
May amend faulty survey	1.12
May authorise modification of design	3.31
May authorise advance on account	8.1
Drains - Reservations	3.16
Drawings -	
Plan may be rejected if faulty	1.10
Tracing linen to be used	7.1, 7.2
Plans not to be folded	7.20
Size of plans	7.1
Scale of plans, rural portions	7.4
Scale of plans, suburban portions	7.5
Scale of plans, allotments of sections	7.6
Unit of measurement	7.7(i)
Maximum number of portions on a plan	7.4
Plan to have north point upwards	7.7(iii)
Magnetic declination to be shown on plan	7.7(iii), 7.7(iv)
Boundaries of portions, delineation	7.8
Bearings to be recorded in degrees, minutes and seconds	7.14

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Traverse lines, delineation	7.8
Portion, section and allotment numbers	7.7(v)
Width of roads, carriageways and footways	7.7(vi)
Establishment of external boundaries	7.7(vii)
Existing or proposed easements	7.7(ix)
Present name of every road to be shown	7.7(x)
Names of rivers, creeks, hills etc.	7.7(xi)
Signature of surveyor and date of completion of survey	7.7(xii)
Boundaries of territorial divisions (Appendix H)	7.7(xiii)
Reserved roads within portions	7.9
Lines of coasts, rivers, creeks, etc.	7.10
Limits of swamps, forests, etc.	7.11
Hills and ridges to be shown if prominent	7.12
Position and extent of improvements	7.13
Corner and reference marks	7.7(ii), 7.15
Omission of fractional quantities	7.17
Type, size and spacing of lettering (Appendices A, B, C, D, E)	7.19
Heading of the plan	7.21
Topographical details	7.23
Surveyor's endorsement on plan	7.24
Distinctive symbols etc. (Appendix D)	7.25
Fence post on corner, reference to	7.26
Plans of proposed roads under Public Roads Act	7.27
Connections to be noted on plan	7.28
Astronomical observations shown on plan	7.29
Encroachments - on measured portions	3.25
Erasures - not to be made in field notes	2.3
Erroneous surveys -	
May be rejected and costs disallowed	1.9
Field notes -	
To be actual notes taken in field, recorded in ink	2.1
To be recorded in Field Books supplied by Lands Department	2.2
Erasures are not to be made	2.3
Departmental Field Books to be forwarded to District Surveyor	2.4, 2.17
Instruction number etc., to be recorded	2.5
Diagram of survey to be provided in field book	2.6
Physical character of land, geological formation, etc.	2.7
Position of improvements, ownership etc.	2.8
Datum line and adopted azimuth	2.9
Bearings to be shown, with repetition of angles	2.10
Corrections to measurement - slope and temperature	2.11

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Closing angles	2.12
Intersection of features, fences, etc. on measured lines	2.13
Position and state of old marks	2.14
Lines re-chained to be specified	2.15
Intersections, offsets and widths of watercourses to be shown	2.16
Particulars of astronomical observations to be recorded in detail	2.18
Forests - Limits of, to be shown on plan	7.11
Fractions of lengths of areas - to be omitted	7.17
Freehold land - surveys	1.15
Frontages -	
To cliffs, lakes, etc.	3.9
To seashore	3.10
To watercourse	3.8
Strips of Crown land not be regarded as frontage roads	1.20
Geological formation -	
To be recorded in field notes	2.7
To be shown on plan	7.23
Grazing capabilities - to be stated in field notes	2.7
High water mark -	
Determination of	Appendix G
Boundary along	3.10
Hills - delineation on plan	7.7(xi), 7.12
Improvements -	
Particulars of, to be given in field notes	2.8
Position and extent of, to be shown on plan	7.11, 7.13
Inaccessible boundaries - survey	3.11
Instructions -	
Officers authorised to issue	1.3
To be completed within specified period	1.6
Instruments -	
Angles to be measured with theodolite	1.8
Distances to be measured with steel or invar bands	1.8



**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Kerb lines -	
To be made parallel where practicable	9.2
Marking of alignment	9.9
Lagoons - measurement of portions fronting	3.9
Lakes -	
Measurement of portions fronting	3.9
Names of, to be shown on plan	7.7(xi)
Lanes -	
Service, separating sections	4.1
Leases -	
For mining purposes	3.23, 3.24
Lockspits -	
At pegs on road surveys	5.9
Placement, direction of, etc.	6.5
Dimensions of	6.6
Magnetic declination to be shown	7.7(iv)
Magnetic north - comparison with grid meridian	7.7(iv)
Marking - (general)	
To be effaced when survey is rejected	1.10
Pegs for allotment corners and angles - dimensions of	6.2
Pegs for portion corners and angles - dimensions of	6.3
Placement of pegs	6.4
Lockspits	6.5, 6.6
Rock at corner	6.7, 6.8, 6.16
Where corner is situated on fixed timber	6.9, 6.16
Where a fence post is situated on corner	6.10
Blaze marking	6.11
Of reference trees	6.12
Of four major corners of each portion	3.2, 6.13
Of allotment number on peg	6.14, 6.16
Of section number on peg	6.15, 6.16
Tree on corner	6.17
Reference marks	3.7, 6.18
Permanent marks	3.7
Marking - (allotments and sections)	
Clearing of boundary lines	4.4
Trees along and within 3 feet of boundary lines	4.5
Section corner	6.3, 6.15
Allotment corner	6.2, 6.14

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Permanent and reference marks	4.6
Rock at corner	6.7, 6.16
Marking (portion surveys) -	
Clearing of boundary lines	3.4
Trees on or near boundaries	3.5
Tree at corner	6.17
Rock at corner	6.7, 6.8
On unfenced boundaries	3.6
Marking (roads and streets) -	
Roads to be marked on both sides	5.9
Reference marks and trees	5.11, 5.12
Fence post on road angle	5.10
Reserved road through a portion	3.14
Alignment and re- alignment of streets	9.12, 9.22, 9.26
Marking (special) -	
Dimensions and types of reference marks	6.18
Survey Co-ordination permanent marks	9.5
Measured portions –	
Subdivision of	3.25
Connections required in survey	3.26
Mileage rates - travelling	8.8
Mining - Land leased or held for purposes of	3.23, 3.24
North point - to be upwards on plans	7.7(iii)
Obliteration of former corner marking, payment	8.3(ix)
Observations - astronomical. for azimuth	3.17, 3.18, 3.19
Offsets - of frontage watercourses to be shown in field notes	2.16
Old boundaries - marking to be shown on plan	7.7(ii), 7.15
Old marks - position and state of to be shown in field notes	2.14
Payment -	
For allotments measured	8.2
For portion surveys	8.3
For public roads	8.4
For reference trees	8.5
For comparison of azimuth	8.6
For a series of astronomical observations	8.7

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
For travelling	8.8
Daily rates	8.9
For observation of a bearing to a trigonometrical Station	8.10, 8.11
Separate account to be rendered for each survey	8.12
Charges for linear rates	8.13
Of all moneys to be by crossed cheque	8.14
Claims to be rendered on Form B49 within 30 days	8.15
Surcharges in certain counties	8.16
Where plans are not supplied by the surveyor	8.17
Percentage increases for difficulty (Appendix K)	8.2(xi), 8.2(xv)
<b>Plans -</b>	
May be rejected for defective drawing, etc.	1.10, 7.3
When rejected payment not to be allowed	1.10, 7.3
Magnetic declination to be shown	3.17, 3.18, 3.19
Bearings to trigonometrical stations	3.27
To be drawn on tracing linen	7.2
Of allotments and portions to be on Forms A293 or A294	7.1(i)
Of roads under Public Roads Act	7.1(ii)
Of alignment surveys, size of	7.1(iii)
Maximum number of portions to be shown on	7.4
Scale for rural portions	7.4
Scale, for suburban portions	7.5
Scale, for allotments	7.6
Scale to be indicated	7.7(i)
Old survey marks or monuments	7.7(ii), 7.15
North point and meridian of survey	7.7(iii)
Datum line of azimuth	7.7(iv)
Portion, section and allotment numbers to be shown	7.7(v)
Roads, width of to be shown	7.7(vi)
Reference to adjoining plans	7.7(viii)
Nature of existing or proposed easements to be shown	7.7(ix)
Present road names to be shown	7.7(x)
Rivers, lakes etc., names to be shown	7.7(xi)
Surveyors signature and date of completion of survey	7.7(xii)
Distinguishing boundaries (Appendix: H)	7.7(xiii)
Method of indicating measured lines (portions)	7.8
Reserved roads within portions	7.9
Lines of coasts, rivers etc.	7.10
Limits of swamps, forests etc.	7.11, 7.13
Hill and ridge features	7.12
Bearings to be recorded in degrees, minutes and seconds	7.14
Date of survey	7.16
Fractional quantities, omission of	7.17
Reference to corners	7.18
Type, size and space of lettering & figures (Appendices A, B, C, D & E)	7.19
Not to be creased by folding or otherwise	7.20

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Heading to identify land	7.21
Use of diagram thereon to amplify detail	7.22
Topographical information	7.23
Endorsement of certificate thereon by surveyor	7.24
Symbols as prescribed (Appendix D)	7.25
Fence post on corner	7.26
Proposed roads under Public Roads Act	7.27
Connections	7.28
Astronomical observations	7.29
To be sent in with letter	1.16
Specimens illustrating plans (Appendices A, B, C, D & E)	
Portion - definition of term	1.2
Portions -	
Numbering of	3.1
Frontage to non- tidal stream - measurement of	3.8
Access must be provided	3.12
Roads to form boundaries as far as possible	3.13, 3.14
Extension of boundaries beyond mean high water mark	3.10
Fronting tidal waters	3.9
Connection to some previous survey	3.22
Subdivision of unalienated land	3.25
Subdivision of measured portion	3.26
Portions (Suburban) Scale for plans of	7.5
Portions (Country) Scale for plans of	7.4
Trigonometrical station connections	3.27
Connections across streams, etc.	3.28
Subdivisions for Closer Settlement purposes	3.30
Modification in the form of measurement	3.31
Survey not of "alienation standard"	3.32
Posts - situated on corners	3.2, 6.10, 7.26
Situated on road angles	5.10
Ranges -	
Intersection of, to be shown in field notes	2.13
Real Property Act surveys -	1.15
Reference marks and trees	3.2, 3.7
Reference marks - particulars to be shown on plan	7.7(ii), 7.15
Report -	
To be forwarded to District Surveyor	1.4

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
To accompany plan	1.16
Requisitions -	
Must be attended to promptly by surveyor	1.12
Reserved roads -	
Within portions	3.14, 3.15
Representation on plan	7.9
Reserves -	
For water races or drains	3.16
Ringbarking - Position to be shown on plan	7.11
River -	
Separating portions, connection required	3.28
Name of, to be shown on plan	7.7(xi)
Position of, to be shown on plan	7.10
Roads -	
To be provided in suitable positions	3.12
Access to be provided to each portion	3.12
Should be measured along portion boundaries	3.13
When reserved, to be marked on both sides	3.14
Reserved roads within portions - location	3.15
Survey of, under Public Roads Act	5.1, 5.11
Connections with measured portions	5.3, 5.4
To be of uniform width wherever possible	5.8
Marking of	5.9
Fence post on angle	5.10
Reference trees	5.12
Survey requirements of D.M.R. to be adhered to	5.13
Identification of severed lands	5.14
Easements etc. to be accurately defined and shown on plan	5.15
Size of plan	7.1(ii)
Omission of fractional quantities	7.17(iii)
Plan, special requirements under Public Roads Act	7.27
Payment for survey for	8.3(x), 8.4
Rocks -	
At corner, marking of	6.7, 6.8, 6.16
Reference mark on rock	6.18
Schedule of costs -	8.1 to 8.17
Selection corner - marking of	6.15
Standards of length - verification of measuring tapes	1.8

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
<b>Streets - Alignment</b>	
Definition of carriageways & footways	9.1
Width of carriageways	9.2
Abuttal of holdings on	9.3
Proof of dedication of, by Councils	9.4
Connections to Trig. Stations, etc.	9.5
Radiations from alignment pins, to be shown on plan	9.6
Encroachment by structures etc. on footways	9.7
Connections between alignment pins (Appendix D)	9.8
Marking of alignment	9.9, 9.10
Measurement and marking required	9.11
Alignment pins, dimensions	9.12
Surveyor to ensure proper position of markings	9.13
Scale of alignment plan	9.14
Offsets on plan to be in feet and inches (Appendix D)	9.15
Schedule of streets proposed to be aligned	9.16
Alignment markings placed, delineation on plan (Appendix. D & E)	9.17
Alignment marks found, delineation on plan (Appendix. D & E)	9.17
Boundaries of grants, to be shown on plan	9.18
Names of owners or occupiers of buildings encroaching on street	9.19
Field notes of survey to be transmitted with plan	9.20
<b>Streets - realignment</b>	
Definition	9.2
Marking of new alignment	9.22
Commonwealth property to be excluded	9.23
Plan requirements (Appendix E)	9.24
<b>Streets, remarking and alteration of alignment -</b>	
Definition	9.25
Survey	9.26
Plan requirements (Appendix D)	9.27
<b>Subdivisions - measured portions or allotments</b>	3.25
For Closer Settlement purposes - areas	3.30
<b>Suburban allotments and sections -</b>	
Maximum area, numbering	4.1
Minimum area for locality	4.2
Frontage, minimum	4.3
Trees on or near boundary	4.4, 4.5
Permanent and reference marks required	4.6

**INDEX**

<b>Subject</b>	<b>Direction Numbered</b>
Surcharges to the account of surveyor -	
As a result of erroneous or faulty survey	1.9
As a result of incomplete or faulty plan	1.11
As a result of delay in meeting requisition	1.12
Survey -	
Definition of term	1.2
To be alienation standard, unless otherwise directed	1.5
Specifications of instruments to be used	1.8
Proposed modification, to be reported to District Surveyor	3.31
Field books to be forwarded to District Surveyor	2.4, 2.7
Datum line and azimuth adopted	2.9
If erroneous, may be rejected and charges disallowed	1.9
Requisitions must be attended to promptly	1.12
Astronomical observations for azimuth	3.17, 3.18, 3.19
Date of, to be shown in certificate on plan	7.16
Payment for surveys (contract)	8.1, 8.17
Survey Co - ordination Act -	
Permanent Marks	6.18(xiii), 9.5
Payment for comparison of azimuth	8.6
Survey Co - ordination Regulations -	
Prescribed symbols and conventional signs	7.25
Surveyor -	
Definition of term	1.2
To give prompt attention to requisitions, etc.	1.12
Notice of entry upon alienated land	1.13
Travelling fees from office or home	8.8
Surveyor - General -	
Definition of term	1.2
Authority to issue instructions	1.3
Decision of, on Departmental survey practice	1.14
Swamps -	
Measurement of portions fronting	3.9
Delineation of limits on plan	7.11
Tidal observations - determination of M.H. W. Mark	Appendix "G"
Tidal waters - measurement of lands fronting	3.10
Town allotments -	
Maximum area	4.1
Minimum area	4.2
Minimum frontage	4.3

## INDEX

Subject	Direction Numbered
Clearing boundary lines	4.4
Trees on or near boundary lines	4.5
Placing of permanent and reference marks	4.6
Corners	6.2, 6.14
Rock on corner	6.16
Plan form to be used	7.1(i)
Scale of plan	7.6
 Town Sections -	
To comprise one or more allotments	4.1
Numbering of	4.1
 Travelling - allowance to contract surveyor	8.8
 Traverse -	
Along frontage of non-tidal stream	3.8
Along inaccessible boundaries	3.11
Delineation on plans	7.8
 Trigonometrical Station -	
Bearings and connections to	3.27, 7.8, 9.5
Payment for observations to	8.11
 Watercourses -	
Offset distances and widths	2.16
Survey of portions fronting	3.9
Delineation on plan	7.10
Names of, to be shown on plan	7.7(xi)
 Water races - Reservations for	3.16



**DIRECTIONS FOR THE EMPLOYMENT OF SURVEYORS  
BY THE DEPARTMENT OF LANDS, N.S.W.**

- 1.1 These Directions will be effective for surveys which commenced on or after 1<sup>st</sup> October, 1963, and the Regulations for the Employment of Licensed Surveyors are hereby cancelled except for surveys which commenced prior to 1st October, 1962.
- 1.2 In these Directions the expression:-  
"Surveyor General" shall mean a person appointed to that position in the Department of Lands, or any person acting in that position for the time being.  
  
"District Surveyor" shall mean any person appointed to that position for a specific Land Board District or any person authorised to act for him for the time being. In respect of lands in the Western Division "District Surveyor" shall mean the Senior Surveyor of the Western Lands Commission.  
  
"Surveyor" shall mean any person duly registered as a surveyor with the Board of Surveyors of New South Wales.  
  
"Survey" shall mean measurement and marking, the drawing of the plan, preparation of a letter transmitting same and any necessary report and schedules on approved forms.  
  
"Portion" shall mean a parcel of land measured under authority and numbered as of a parish, or numbered as a portion WL in the Western Division.  
  
"Alienation Standard" shall mean the standard of survey practice required by the Survey Practice Regulations 1933, excluding Regulation 46.  
  
"Department of Lands" shall mean the Department of Lands of New South Wales.  
  
"Western Lands Commission" shall mean the Western Lands Commission of New South Wales.
- 1.3 All surveys required by any Act administered by the Minister for Lands, N.S. W., shall be effected under instructions or authority issued by the Surveyor General or a District Surveyor and shall be made in strict accordance with the design and directions accompanying such instruction or authority.
- 1.4 All official correspondence, unless otherwise directed, shall be forwarded to the District Surveyor of the Land Board District in which the work is situated.
- 1.5 Every survey made under the provisions of any Act administered by the Minister for Lands shall be made in accordance with the Survey Practice Regulations and of any additional requirement of these Directions. Unless otherwise directed all surveys shall be of alienation standard.

- 1.6 Unless special approval is given to the contrary by the District Surveyor all surveys shall be completed within the period specified on an instruction or within six months of the date of issue of an instruction, whichever period shall be the lesser. In the event of recall of any instruction after such period no claim need be met for partially completed work.
- 1.7 All Registered Surveyors are expected to be familiar with the provisions of the Surveyors Act, the Survey Co-ordination Act, the Survey Practice Regulations, the Survey Co-ordination Regulations, the Conveyancing Act Regulations, 1961 and these Directions.
- 1.8 Unless otherwise specified, all angular measurements are to be made with a theodolite in accurate adjustment which is graduated to not more than 20 seconds of arc or the graduations of which can be interpolated to 10 seconds or less. All linear measurements are to be made with steel or invar bands which have been compared with the standard maintained by the Department of Lands.
- 1.9 Surveys found to be erroneous, or surveys in contravention to instructions or surveys not in accordance with these Directions may be rejected by the Surveyor-General or District Surveyor, and the charges for the same may be disallowed; or if such charges have been paid, the amount thereof may be surcharged against any moneys which may be due or may become due, or may be recovered as a debt from the Surveyor in default: or, if another Surveyor be employed to amend or re-measure, then the cost of his services (but not exceeding the charges for the original survey) may be surcharged to the account of the Surveyor in default, or may be recovered from him as a debt.
- 1.10 When a survey is rejected for any of the before-mentioned causes, the marking shall be effaced by the Surveyor in default if so directed. A plan may be rejected on account of erroneous survey, defective drawing, damage in transmission or other sufficient reason. A rejected plan will not be returned to the Surveyor, neither shall payment for the same be allowed.
- 1.11 Under certain circumstances, e.g., when there has been failure to complete a survey in accordance with these Directions, or when a plan has been inaccurately or badly drawn, or an area has been incorrectly computed, and it may not be expedient to reject the surveyor plan, a discount, to be approved by the Minister, which shall not exceed the original cost of the authorised charges for the service, may be imposed to cover the cost of professional labour involved in examination and amendment; or, in event of the charges for the imperfect service having been paid, such discount may be surcharged to the account of the Surveyor in default, or may be recovered from him as a debt.
- 1.12 Requisitions re errors or omissions in connection with any survey must meet with prompt attention and reply by the Surveyor; if unanswered for a period exceeding one month it shall be competent for the Surveyor-General or District Surveyor to cause inquiry or amendment of survey, the cost of which may be surcharged to the Surveyor's account.

- 1.13 Attention is directed to the propriety of giving reasonable notice to the owner or occupier of alienated land before entry thereon in connection with any survey under these Directions.
- 1.14 The decision of the Surveyor- General on all questions arising under these Directions or in connection with the practice of the Department shall be final.
- 1.15 Any parcel of land surveyed under the provisions of any Act administered by the Minister for Lands shall be measured and marked as an Allotment of a Section as a Portion of a Parish, or in the Western Division as a Portion WL. Any parcel of freehold land to be resumed or measured for conveyance shall be measured as a lot under the provisions of the Conveyancing Act Regulations, 1961.
- 1.16 Each plan shall be accompanied by a separate letter reporting full particulars, etc., and there- with shall be transmitted a tabular statement on the approved form, setting forth particulars of the traverse, reduced bearings, and the differences of latitude and departure; and, in the case of a measured portion, the particulars of computation of area shall also be inserted.
- 1.17 All plans shall be transmitted as soon as possible after completion of the field work and shall be accompanied by the field notes.
- 1.18 Every Contract Surveyor shall indemnify the Minister for Lands from any claims for wages, allowances, claims under the Workers Compensation Act or damages of any kind in respect of his employees or equipment.
- 1.19 Fencing must not be accepted as defining former boundaries unless so determined by survey. Care must be taken in cases where previously measured lines are re- defined from blazed trees or other limited data. Details of the number and location of blazed trees found are to be reported where they are relied on for re - definition. Generally lines should not be redetermined from blazed trees or limited data unless they are run through to their terminals.
- 1.20 For the purpose of S.P. Reg. 21 (b) (v) strips of land in the Crown estate are not regarded as frontage roads unless used, or likely to be used, for access.

### **FIELD NOTES**

- 2.1 Field notes shall contain the notes actually taken in the field and should be recorded in ink. The Surveyor shall sign each page of the notes in ink and shall indicate the date upon which the work recorded on such page was performed.
- 2.2 Field notes shall be recorded in field books supplied by the Lands Department excepting where they are recorded in field books intended to be finally lodged and indexed in other Government Departments or Instrumentalities. They should be precise and complete, and kept in a neat and professional manner.
- 2.3 In the event of alteration of a mistake, there should be no erasure, but the erroneous entry should be struck through and the correction written above.

- 2.4 Upon completion of the surveyor upon demand, Departmental field books shall be forwarded to the District Surveyor.
- 2.5 Instruction number, class and purpose of survey, portion or allotment and section number, parish and county, municipality or shire, city, town or village, as appropriate shall be recorded.
- 2.6 A diagram shall be provided in the field book to illustrate the survey sufficiently to facilitate the preparation of a complete and accurate plan therefrom without recourse to any other records and without verbal explanation.
- 2.7 Particulars shall be stated as to the physical character, geological formation, types of soil, variety and density of timber, grazing and agricultural capabilities and water supply.
- 2.8 The position of improvements shall be clearly indicated, particulars of ownership, description, and value, also the names of estates, houses, roads, streets, lanes, rivers, creeks, lakes and the like, shall be entered in the field notes if materials to the survey and ascertainable by the surveyor.
- 2.9 The datum line of the survey and the azimuth adopted shall be clearly indicated. As a general rule magnetic azimuth is preferred.
- 2.10 Bearings, in degrees, minutes, and seconds of arc, shall be clearly shown, together with particulars of repetition of angles. All closing angles shall be observed and noted.
- 2.11 Lengths shall be entered as measured, corrections for slope and temperature shall be noted and the lengths deduced therefrom shall be clearly indicated.
- 2.12 References from reference trees or other reference marks must be clearly shown either on a diagram or in tabular form referred to in the diagram by letters.
- 2.13 On measured lines the intersections of watercourses, other natural features, fences, etc., shall be noted.
- 2.14 The position and state of preservation of old marks shall be carefully noted. Where reference marks are recorded on plans of former surveys in positions which influence the definition of boundaries on the subject survey, surveyors must indicate whether such reference marks were "found" or were "gone". It is not sufficient to state "not found" where a mark could be vital in the re-definition of a former survey.
- 2.15 Lines rechained shall be so specified.
- 2.16 Offset distances and widths of frontage watercourses shall be clearly shown.
- 2.17 Field books illustrating the survey shall be forwarded with each plan and report.

- 2.18 Details of astronomical observations are to be set out in detail in field notes as observed and in addition a schedule of reduced observations shall be shown in the field notes for each set of observations under the following headings:-

Station	Time and date of observation	Celestial Body observed	Zenith Distance	Bearing on survey azimuth	True Bearing	Variation
A	6 <sup>h</sup> 20 <sup>m</sup> 7th March 1963	Sun	61° 20' 16"	221° 18' 15"	230° 10' 15"	8° 52' 00"

### **PORTIONS**

- 3.1 All portions shall be numbered as determined by the District Surveyor and shall be measured in links.
- 3.2 Four major corners of each portion where available shall be marked with the number of the portion surveyed together with the numbers of all adjoining portions. The numbers shall be placed preferably on a reference tree or reference rock or marked on a tree or rock situated on the corner. In the event of suitable trees or rocks being unavailable the corner peg shall be so numbered, or, if a fence post is situated on the corner, it shall be so numbered. However, where suitable trees or rocks are situated beyond 150 links but less than 300 links from such corner they may be marked and numbered and references shown on the plan but such marks cannot be accepted as reference marks under the Survey Practice Regulations.
- In addition to these requirements reference trees if available shall be marked at intervals of about 1 mile apart on all marked and unmarked boundaries.
- 3.3 All corners and angles of the lines measured in any portion shall be defined by pegs or marks as set out in Section No.6 of these directions but angles of a traverse along a watercourse the bank of which is a boundary or along a water race or unmarked road or easement need not be so defined.
- 3.4 All scrub and trees of a less diameter than 4 inches within 2 links of any measured portion boundary shall be cleared.
- 3.5 All trees remaining after clearing operations within 3 feet of a measured boundary shall be blazed, and if situated on any boundary they shall be double blazed.
- 3.6 On unfenced boundaries, line pegs or marks shall be placed at intervals of not more than ten chains, excepting that, if any peg or mark is visible from the peg or mark next on either side of it, such intervals may extend to but not exceed 16 chains.
- 3.7 Permanent marks and reference marks shall be placed as required by the Survey Practice Regulations and Local Government Ordinance 32. Any additional marks shall be subject to approval by the District Surveyor.

- 3.8 Where any portion has frontage to a non-tidal stream, the bank of which is reasonably well defined, the bank, which is defined as the limit of the bed in Section 23SA of the Crown Lands Consolidation Act, shall be fixed by offsets from an unmarked traverse. Where the bank at a corner is liable to erosion, the corner peg shall be placed on the boundary a safe distance back from the bank. In all cases where a boundary terminates on the bank of a watercourse, distances shall be measured and recorded to the bank, traverse and corner and the plan of survey noted accordingly.
- 3.9 Portions shall not be measured with frontage to cliffs, lakes, lagoons, ill- defined watercourses and swamps; boundaries bordering thereon shall be defined by marked lines.
- 3.10 Except under special conditions, as prescribed by law, a boundary cannot extend beyond mean high water. As a rule, a roadway or reservation should be provided along such frontages.
- 3.11 Where part of a boundary or parts of boundaries are inaccessible, a connecting traverse shall be made between the extremities of the measured parts where pegs and reference marks (preferably trees or rocks) are to be placed. The unmeasured parts are to be shown by broken lines on the plan.
- 3.12 For the purpose of intercommunication or access to amenities, roads shall be provided in the most suitable positions. Unless otherwise directed, they shall not be less than 100 links no more than 300 links wide and where reasonably practicable they shall be of even width. Access must be provided to each unalienated title, but where a group of freehold portions are held in one interest, access to the group only is required.
- 3.13 As far as possible, roads should be measured along portion boundaries.
- 3.14 Roads measured within portions shall be known as reserved roads. Unless otherwise directed they are to be measured on one side and both sides are to be marked as required by Paragraph 5.9 of these Directions. Where reserved roads meet a boundary the distance along that boundary to the measured side of the reserved road shall be recorded on the plan together with the distance across the road.
- 3.15 Reserved roads within portions which are not likely to be alienated need not be measured where the access is of a minor nature and the location can be shown on the plan with reasonable accuracy.
- 3.16 The position of a water race or legally constructed drain intersecting a portion shall be defined by traverses, unless it can be accurately defined from the boundaries of the portion. There shall be reservation to a width 10 feet from each side of the centre line of the race; where the cutting exceeds 10 feet in depth or a tunnel is constructed, the width shall be 20 feet from each side of the centre line.
- 3.17 In any survey of a portion or group of portions which exceeds 6400 acres, or where so directed, one series of astronomical observations for azimuth shall be taken.

- 3.18 Where in any survey of a portion or group of portions, any part is situated 6 miles distant in a direct line from any other part, astronomical observations for azimuth shall be taken near those extremities.
- 3.19 A series of astronomical observations for azimuth shall consist of not less than three complete sets and no set shall differ by more than 30 seconds from the adopted mean.
- 3.20 No boundary which has been previously determined and is sufficiently marked for fencing purposes shall be re-surveyed if an angular and linear close within the prescribed limits can be obtained, provided that the cost of essential comparisons of azimuth is less than the cost of re-survey.
- 3.21 A comparison of azimuth shall consist of a survey for azimuth purposes only between two or more marks found on a boundary. This survey is distinct from a connection along a boundary to a corner which in itself forms a terminal of a line of azimuth.
- 3.22 All portions surveyed shall be connected to some previous portion survey unless otherwise directed. The azimuth of the survey connected with shall be observed and noted on plan.
- 3.23 Land held under mining lease or for which a lease has been applied for under the Mining Act, unless within a reserve exempting the land from such application, shall not be measured for alienation.
- 3.24 Areas held under valid occupation for residential or business purposes under the provisions of the Mining Act shall be excluded from lands being measured for alienation except under a covering application under Section 62 of the Crown Lands Consolidation Act.
- 3.25 No surveyed allotment or portion of unalienated land shall be subdivided or encroached upon without specific instructions or approvals to that effect.
- 3.26 In the subdivision of a measured portion, connections along boundaries are required from the extremities of the subdividing line to the nearest points established in the former survey. One subdivided area shall close to the requirements of the Survey Practice Regulations and sufficient connections shall be provided to permit of the computation of the area of the balance of the original portion. Where the original plan is marked "Not Suitable for alienation" or in portions WL for Western Land Leases held for the purpose of grazing and a close within the prescribed limits cannot be obtained for either portion by interpolating existing survey information, no re-survey of such boundaries shall be made unless so instructed by the District Surveyor.
- 3.27 In all surveys within view of trigonometrical stations bearings shall be observed thereto and the particulars recorded on the plan. A connection to a trigonometrical station shall be traversed if so directed in the instruction, unless found to be impracticable or very difficult.
- 3.28 Wherever practicable, connections shall be measured to corners of portions on the opposite side of frontage streams and to portions within a few chains of the portion being measured and separated therefrom by vacant Crown Lands.

- 3.29 When instructions call for survey of a specific area, there shall be no deficiency in the area measured.
- 3.30 In subdivisions for Closer Settlement purposes, the areas of portions measured shall not depart by more than 1% from the designed areas, except with the prior approval of the District Surveyor.
- 3.31 Any desirable modification in the form of measurement shall be reported to the District Surveyor, accompanied by applicant's written consent; but any modification effected without the District Surveyor's approval will be at the risk of the Surveyor.
- 3.32 Where the survey of the boundaries of minor or temporary titles which appear unlikely to be converted to freehold tenure does not appear to warrant normal survey and appears to be within the scope of Survey Practice Regulation No. 46, the District Surveyor shall refer the matter, together with report and recommendation to the Surveyor General for direction.

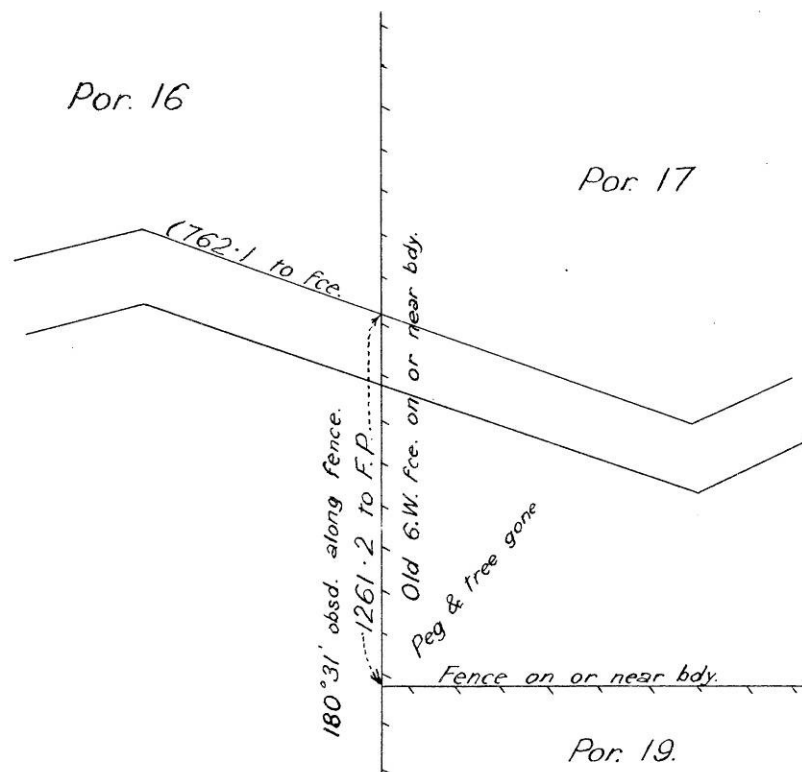
### **ALLOTMENTS AND SECTIONS**

- 4.1 Individual allotments shall not as a general rule exceed 2 roods in area. Sections shall comprise one or more allotments, which shall not be separated by a road but may be separated by service lanes. Sections may be numbered as of a Town, Village, Parish or Locality, but section numbers shall not be duplicated in any Parish. Allotments shall be measured in feet and inches.
- 4.2 Unless instructed to the contrary, the area of any allotment shall not be less than the minimum area specified for the locality by the Local Municipal or Shire Council.
- 4.3 Unless instructed to the contrary, the frontage of any allotment shall not be less than the minimum frontage specified by the Local Municipal or Shire Council.
- 4.4 All scrub and trees of less diameter than 4 inches within one foot of an allotment boundary or section boundary, shall be cleared.
- 4.5 All trees, remaining after clearing operations, and within 3 feet of an allotment boundary or section boundary, shall be blazed, and, if situated on a boundary, shall be double blazed.
- 4.6 Permanent and reference marks shall be placed as required by the Survey Practice Regulations and Local Government Ordinance 32, and in addition, a reference mark, preferably a galvanised iron pipe, shall be placed on the site of the intersection of major building lines where a corner at the intersection of two streets is cut off or rounded off.



### **PUBLIC ROADS**

- 5.1 In the survey of any road under the Public Roads Act the provisions of the Public Roads Act, the Survey Practice Regulations, Ordinance 32 of the Local Government Act and these Directions must be strictly observed.
- 5.2 Where the proposed road traverses freehold portions or Crown tenures each terminal of the proposed road must be connected to a defined survey point and a comparison of azimuth determined. Where the proposed road traverses vacant Crown lands it must be connected to a registered survey and if practicable a comparison of azimuth determined.
- 5.3 (i) Where the proposed road intersects title boundaries between separate ownerships or the boundaries of Crown tenures those boundaries shall be carefully re-established and the intersections of the sides of the proposed road and those boundaries shall be defined by survey and marked. The bearings of such boundaries shall be determined and measurements shown to defined survey points on those boundaries.
- (ii) Provided that, where the terminals of the proposed road have been accurately connected to former registered surveys and all internal titles and unnecessary roads can be accurately plotted in relationship to the proposed road, the requirements of this Direction may be dispensed with if such connections involve undue expense.
- (iii) Provided also that where a fence has been erected on or near a boundary between different ownerships or of Crown tenures and the intersection is not defined as provided in the first paragraph of this Direction, the distance along the proposed road traverse to that fence shall be noted and a bearing observed and noted along the line of that fence. Fences shall not be adopted as boundaries unless sufficient investigation is made to establish that presumption. Unless boundaries are promptly redefined cuts on fencing shall be noted vide the adjacent diagram. Distances to corner fence posts on or near title corners to be shown where practicable.



- 5.4 Where the proposed road provides for resumptions along the frontage of an existing title or Crown tenure all cuts shall be determined on the ground where readily practicable but, where insufficient marks are found and the old surveys can be accurately plotted in relationship to the proposed road, this requirement may be dispensed with, excepting that in the case of a Crown tenure sufficient computed connections must be provided to permit re- approval of the original plan to incorporate the amendments necessitated by the proposed road.
- 5.5 Where an intersection with the boundary between separate ownership or of a Crown tenure has not been defined as set out in the first paragraph of Direction 5. 3 reference marks shall be placed to permit of ready re- establishment of the proposed road at that point. Without limiting discretion it will generally be preferable to place these reference marks at each end of the road traverse line which crosses that boundary.
- 5.6 All topographical information (including buildings and fencing) within close proximity of the proposed road are to be accurately delineated. The type and approximate age of fencing to be shown. Age groups to be approximately:-
- |            |   |      |   |          |
|------------|---|------|---|----------|
| New        | - | 1    | - | 10 Years |
| Fairly New | - | 11   | - | 20 Years |
| Fairly Old | - | 21   | - | 30 Years |
| Old        | - | 31   | - | 40 Years |
| Very Old   | - | Over | - | 40 Years |
- 5.7 Where the provisions of Section 8 (6) of the Public Roads Act are likely to apply the house and affected yard, garden or orchard must be carefully shown to scale and the enclosure so affected shown on the plan in its entirety.

- 5.8 New roads shall be measured of uniform width wherever possible. Small areas of unnecessary roads shall not be closed except in special circumstances.
- 5.9 A road shall be marked on both sides by trees blazed in the prescribed manner, and hardwood pegs, 3 inches square and 21 inches long, shall be inserted 18 inches in the ground at all angles and at intervals prescribed by the Survey Practice Regulations, with lockspits at pegs on the side measured.
- 5.10 Where an angle of a new road is defined by the centre of a fence post, it shall be marked <sup>↑</sup>RD and plan noted <sup>↑</sup>FPRD
- 5.11 In the survey of a road under the Public Roads Act, reference marks shall be placed in accordance with Survey Practice Regulation 24A.
- 5.12 Reference trees marked <sup>↑</sup>“Rd” may be placed, in addition to markings required by the Survey Practice Regulations, at terminals of the proposed road and at intervals of about 1 mile throughout.
- 5.13 The survey requirements of the Department of Main Roads for intersections or junctions with Main Roads or Trunk Roads shall be carefully adhered to and it shall be the responsibility of the measuring surveyor to obtain the concurrence of the Divisional Engineer of that Department unless such has been provided for in the instructions for survey.
- 5.14 Severed land shall be identified by survey and sufficient information supplied to enable its metes and bounds to be determined.
- 5.15 All easements, rights of way, etc. apparent on the ground shall be accurately defined in relation to the boundaries of the proposed road and such information shall be shown on the plan.

### MARKING

- 6.1 Where any line or corner is required to be marked in accordance with these Directions, the points to be marked shall be firmly marked with a peg, drill hole in rock, drill hole in concrete or similar material, or a nail in fixed timber.
- 6.2 All corners and angles of an allotment shall be marked in accordance with the preceding direction. Pegs for allotment corners shall be of sound durable hardwood or white cypress pine at least 16 inches long and not less than 3 inches by 2 inches rectangular section at the top except that where an allotment peg is common to more than 2 allotments it shall be of size set out in Paragraph 6.3 of these Directions.
- 6.3 Pegs for portion corners or angles, alignment pegs, section corners, each terminal of a cut off corner in a section, each tangent point within a section, all road pegs and all pegs within a cemetery shall be of sound durable hardwood or white cypress pine at least 21 inches long and not less than 3 inches square section at the top.

- 6.4 All pegs shall be pointed for approximately two-thirds of their length and shall be placed upright in the ground point downwards so that the top is not more than 3 inches above the ground level and the surrounding earth securely rammed, except that where a peg is located on a track in use for traffic the top shall be level with the surface of the ground. A broad arrow shall be cut into one face of each peg near its top.
- 6.5 Lockspits shall be placed in the direction of each boundary line from all marked corners or angles other than at pegs on allotment corners or unmeasured sides of roads or where the corner is located on a track in use.
- 6.6 Lockspits shall consist of trenches at least 4 feet long, 8 inches wide and 6 inches deep commencing one foot from the peg or may consist of packed stones of similar dimensions.
- 6.7 Where any corner or angle is marked with a drill hole broad arrow, chisel mark or nail in fixed timber, where practicable lockspits shall be cut in solid rock, concrete or fixed timber 3 inches long  $\frac{3}{4}$  inch wide and  $\frac{1}{2}$  inch deep commencing 2 inches from the corner or where the surface renders it desirable lines may be painted at least one foot long and  $\frac{3}{4}$  inch wide.
- 6.8 Where a corner to be marked is situated on bed rock, concrete or similar material within 12 inches of the surface, marking shall consist of a drill hole  $\frac{1}{2}$  inch in diameter and 1 inch deep with a broad arrow at least 4 inches long directed thereto and cut into the rock or material  $\frac{1}{2}$  inch deep.
- 6.9 Where a corner to be marked is situated on fixed timber, marking shall consist of a galvanised nail with a broad arrow at least 4 inches long directed thereto and cut into the timber  $\frac{1}{2}$  inch deep.
- 6.10 Where a fence post is situated on a corner to be marked, it shall be marked with a broad arrow at least 4 inches long and  $\frac{1}{2}$  inch deep cut into the face of the post.
- 6.11 Where any tree is required to be blazed, it shall be marked with two axe cuts each at least 12 inches long situated on opposite sides of the tree in the direction of the boundary line. Each cut shall have a horizontal cut at least 2 inches deep at the base. The wood of the tree shall be pared down from the top to the horizontal cut. Where a tree is required to be double blazed an additional blaze at least 9 inches long shall be marked above each of the other blaze marks.
- 6.12 Reference trees shall be prepared by removing a shield of bark at least 3 feet in length with a width at the bottom of at least one-third of the girth of the tree. This shield shall face directly towards the corner. A broad-arrow at least 4 inches long and  $\frac{1}{2}$  inch deep shall be cut centrally in the shield approximately 12 inches below the top of the shield, and the point of the arrow shall be the reference point.
- 6.13 Numbers cut in satisfaction of Paragraph No. 3.2 of these Directions shall be 4 inches in length and  $\frac{1}{2}$  inch deep on reference trees, rocks and fence posts and 2 inches long by  $\frac{1}{4}$  inch deep on pegs.

- 6.14 An allotment peg shall be marked with the number of each allotment to which that peg is common. Such numbers to be at least 1½ inches long cut ¼ inch deep into the peg or may be painted in black on a white or yellow background on the exposed faces of the peg which shall be so placed and numbered that each allotment number will face towards the allotment to which it refers.
- 6.15 All section pegs shall be marked with the section number and allotment number. Section numbers to be at least 2 inches long cut ¼ inch deep into the peg or may be painted in black on a white or yellow background on the exposed faces of the peg. In like manner, the allotment numbers shall be marked on section pegs as required in the preceding paragraph.
- 6.16 Where any allotment or section corner is marked on a rock, concrete, or fixed timber, section and allotment numbers of like dimensions to these specified in Pars. 6.14 and 6.15 of these Directions are to be cut or painted thereon.
- 6.17 Where a tree is situated on a corner or angle, a shield of bark shall be removed facing a boundary line and a broad arrow shall be marked on the shield so as to be on that boundary line. A reference shall be determined from the point of that broad arrow to the corner and the plan noted "Tree on Corner" and the reference noted in the usual manner. Normally, trees so marked should be marked with the portion number or numbers.
- 6.18 Where a reference mark is required to be placed, it shall consist of:-
- (i) A concrete block in the form of a truncated pyramid fifteen inches long, 6 inches square at the lower end and 4 inches square at the upper end with a galvanised iron nail or suitable metal plug not less than 3 inches long and ¼ inch diameter inserted therein so that the head of the nail or plug shall project ⅛ inch beyond the surface of the upper end of the block. The block shall be formed of concrete made from three parts of clean sand and one part of cement or four parts of blue metal crushings, two parts of sand and one part of cement.  
  
The Block shall be reinforced longitudinally throughout by at least two ¼ inch diameter steel rods or by galvanised wires of not less than No. 8 gauge. The block shall be firmly set upright with the top 3 inches below the surface.
  - (ii) A mass of concrete cast in situ of the specification provided in (i) not less than six inches square throughout and 15 inches deep with a galvanised iron nail or non corrosive metal plug not less than 3 inches long and ¼ inch diameter inserted therein so that the head of the nail or plug shall project ⅛ inch beyond the upper surface. The upper surface shall be 3 inches below the surface.
  - (iii) A galvanised iron pipe 12 inches long and three quarters of an inch internal diameter with a rim not less than ⅛ inch thick.
  - (iv) A galvanised iron spike 4 inches long driven into fixed timber with a broad arrow 4 inches long cut into the timber ½ inch deep and directed thereto.

- (v) A drill hole cut into a kerb, a brick, concrete or stone wall or other substantial structure at least ¼ inch diameter and ½ inch deep with a broad arrow at least 2 inches long and directed thereto.
- (vi) A drill hole at least ½ inch diameter and 1 inch deep cut into bed rock or natural rock with a broad arrow 4 inches long and directed thereto.
- (vii) A broad arrow cut into the face of a reference tree, and
- (viii) An existing permanent mark placed, adopted or established under the provisions of the Survey Co - ordination Act, 1949.

### **PLANS**

- 1.1 Plans shall be drawn on tracing linen of good quality of the following sizes:-
- (i) Plans of allotments and portions shall be in the form of A293 or A294, form A293 to be preferred where practicable except that a plan of a portion WL in the Western Division may be prepared on a form approved by the Western Lands Commissioner
  - (ii) Plans of roads prepared for the purpose of the Public Roads Act shall be in the form of A296, A297, A297 A or A298A where suitable. No plan shall be smaller than 13¼ inches x 8¼ inches not larger than 60 inches x 20 inches.
  - (iii) Plans of alignment surveys shall not be smaller than 13¼ inches x 8¼ inches nor larger than 60 inches x 20 inches unless prior approval is given by the Officer- in - Charge of Roads Branch, Department of Lands.
- 7.2 Plans shall be drawn on the dull side of the tracing linen in a dense black waterproof ink and without colour or edging.
- 7.3 Plans shall be accurately plotted and if found to be incomplete, faulty or not up to the standard of professional work they may be rejected without compensation.
- 7.4 Except for portions WL in the Western Division plans of rural portions should preferably be drawn on a scale of 20 chains to an inch. If this scale does not permit all boundaries, measurements, and improvements to be clearly shown a larger scale may be used. Areas over 1920 acres should be drawn on a scale of 40 chains to an inch. Not more than six portions shall be shown on one plan except with prior approval by the District Surveyor. A plan larger than foolscap size shall not be used merely to show more than one portion. Plans of portions WL in the Western Division shall preferably be drawn to a scale of 80 chains to an inch but a larger scale may be used where necessary to show boundaries measurements and improvements more clearly.
- 7.5 Plans of suburban portions should usually be drawn on a scale of 8 chains to an inch, although a larger scale may be used for the sake of clarity. Within the limits of Plan A294 as many groups of suburban Portions as can be distinctly shown are to be depicted on the plan.

7.6 Plans of allotments of Sections should be drawn to an appropriate scale of feet sufficiently large to permit all boundaries, measurements, monuments and structures material to the survey to be shown. The whole of the allotments measured in any section are to be shown on one plan and, within the limits of Plan Form A 294, as many sections as can be distinctly shown are to be depicted on the plan.

7.7 Plans shall contain the following information:-

- (i) an indication of the scale to which the plan is drawn, together with a statement describing the unit of measurement used,
- (ii) a record of any pegs, marks or monuments of former surveys used or connected with, together with specific reference to the catalogue or registered number of the plan of such surveys,
- (iii) the north point (which shall be directed to the top of the plan form) and meridian of the survey, e.g. true, grid, magnetic, local or assumed,
- (iv) the datum line of the azimuth of the survey, shown by distinguishing letters placed at the terminals thereof, together with a description of the marks defining the datum line. Where true or a grid meridian has been determined the magnetic declination or variation of the adopted azimuth shall be stated,
- (v) portion, section and allotment numbers, areas, lengths and bearings of all boundaries and details of connecting lines.
- (vi) the widths of all roads indicated in the plan and of their footways and carriage ways if defined by alignment.
- (vii) information sufficient to indicate that the external boundaries have been properly established and do not include any part of adjoining properties or roads. The surveyor shall disclose in the plan or in an accompanying report any doubt, discrepancy or difficulty suggested by or encountered in the survey,
- (viii) references to adjoining plans,
- (ix) the nature of any existing or proposed easement together with sufficient information to define the site thereof,
- (x) the present name of every road shown thereon, confirmed by reference to the local council or other appropriate authority if necessary,
- (xi) all known names of rivers, creeks, hills, lakes, localities, etc., care being taken to ascertain and adhere to the correct orthography,
- (xii) the signature of the surveyor and the date of completion of the survey,
- (xiii) boundaries of territorial divisions as set out in Appendix (I).

- 7.8 Boundaries of Portions measured and external boundaries of Sections shall be shown by heavy unbroken black lines, other boundaries of unbroken black lines. Traverse lines, connections observed trigonometrical rays, and computed lines shall be shown by broken black lines. All angles in boundaries, reserved roads and traverse lines are to be depicted by small circles, Where permanent marks or reference marks other than 6.18 (vii) are placed two concentric circles shall be shown at the angle to which they refer.
- 7.9 Reserved roads within portions shall be represented on the plan by unbroken black lines on the measured side and broken black lines on the opposite side. Where roads are more than two chains wide the cosecant bearings and distances shall be shown. The width shall be written along the course of the road thus: - "Reserved road 100 wide".
- 7.10 Lines of coasts, rivers, creeks etc., shall be shown, where the position has been determined with precision, by firm black lines, and where otherwise, by broken black lines. Both sides of a watercourse shall be shown and an arrow is to be drawn indicating the direction of the current. Where a fence is near a boundary its relative position thereto shall be noted on the plan.
- 7.11 Where practicable the limits of swamps, forests, clearing and ringbarking shall be carefully represented on the plan.
- 7.12 Hill and ridge features are not to be shown unless they are prominent. If shown they are to be depicted in soft pencil in such a manner as not to obscure any plan information.
- 7.13 Where practicable the position and extent of improvements such as buildings, fencing and water supply shall be shown on the plan.
- 7.14 All bearings shall be recorded in degrees, minutes and seconds from the north clockwise. As a general rule seconds of arc are not to be recorded for lines less than 20 chains in length. Where recorded seconds are to be in multiples of 10".
- 7.15 Particulars of former corners and reference marks shall be indicated as "found" "not found" or "gone". The term "gone" is not to be used unless proper search has been made and notes of measurements made for that purpose are recorded are recorded in the field notes. The bearing and distance from any reference mark found to the corner is to be recorded on the plan.
- 7.16 The date of survey in the certificate on plan shall be the date on which the measurements and necessary markings were completed on the ground.
- 7.17 Fractional quantities of lengths and areas should be omitted as follows:-
  - (i) in town allotments, quantities smaller than  $\frac{1}{4}$  inch,
  - (ii) in portion surveys, quantities smaller than 0.1 link where the perimeter is longer than 20 chains, 0.01 link where it is 20 chains or less,



- (iii) in road alignment surveys, quantities smaller than 0.01 foot,
- (iv) except in the case of surveys under the Real Property Act or the Closer Settlement Act or for Farms on Irrigation Areas, fractional quantities of areas in excess shall be omitted as follows:-

In allotments or portions of 1 rood or less	Less than ¼ per.
In portions more than 1 rood and not more than 2 acres	Less than ½ per.
In portions more than 2 acres and not more than 10 acres	Less than 1 per.
In portions more than 10 acres and not more than 40 acres if bounded by right lines	Less than 10 per.
In portions more than 10 acres and not more than 40 acres if bounded by a water course	less than 1 rood
In portions more than 40 acres and not more than 320 acres if bounded by right lines	less than 1 rood
In portions more than 40 acres and not more than 320 acres if bounded by a water course	less than 2 roods
In portions more than 320 acres and not more than 640 acres	less than 2 roods
In portions more than 640 acres	less than 1 acre

In surveys for Farms on Irrigation areas or under the provisions of the Closer Settlement Acts fractional quantities less than 1 perch shall be omitted.

- 7.18 The bearings and distances from reference marks or other special marks or monuments to corners, angles, and alignment marks shall be noted on the plan in tabular form, the points referred to being identified by letters in alphabetical order.

### **REFERENCE TO CORNERS**

<u>Station or corner</u>	<u>Bearing</u>	<u>From</u>	<u>Distance (links)</u>	<u>Number marked</u>
A	360° 31'	Bloodwood	50.1	15 - 16
B	265° 30'	Ironbark	17.5	17
C	Fence post on corner			17
D	Rock mark at corner			16
E	165° 32'	G.I. Pipe	2.27	
F	Numbered peg at corner			16

Particulars of corner and reference marking shall appear in full in the schedule illustrated above with a separate entry for each item. Fence posts, which are situated on corners, if numbered shall be listed in above schedule and shown as "Fence post on corner" (with any necessary reference S.P. Reg. 33) followed by the numbers so placed. The note ditto is not to be used. Where an additional reference mark is placed at a corner, particulars thereof must be shown immediately below the corner notation.

- 7.19 The type, size and spacing of figures and lettering and the thickness of line work shall be in accordance with the specimen plans shown in Appendices (A) (B) (C) (D) and (E).
- 7.20 Every plan shall be kept free from blemishes and from creases caused by folding or otherwise.
- 7.21 The heading of the plan shall identify the land comprised therein.
- 7.22 A diagram may be used to amplify any detail not clearly shown on the main plan owing to smallness of scale etc.
- 7.23 Details of geological formation, soil, timber cover, water supply and terrain shall be recorded on the plan, either by writing across the face where there is adequate space, or in note form.
- 7.24 The surveyor shall endorse upon the plan of survey a certificate in or to the effect of Form 1 in the Schedule to the Survey Practice Regulations.
- 7.25 Distinctive symbols, boundaries and conventional signs used on plans shall be those prescribed by Regulation 8 of the Survey Co- ordination Regulations, 1951 (See Appendix 1).
- 7.26 Where a fence post is proved to be on a corner and the other references have disappeared, the plan must show "F.P. on Cor" not "FP fd".
- 7.27 Plans of proposed roads under the Public Roads Act shall have the following special requirements:-
- (i) Both sides of a proposed road are to be shown by heavy black lines.
  - (ii) Careful plot of intersections of the proposed road with title boundaries or existing roads must be made, special care being taken where connection is not made by survey and the relative portions of the information shown on the plan has been determined only by plot.
  - (iii) Two or more separated parts of a proposed road are not to be shown on one plan unless all title information between those parts is drawn to scale thereon. All proposals shall be depicted in a continuous plot.
  - (iv) Where it is necessary to draw a plan on more than one sheet the join lines adopted shall where practicable avoid reference to individual affected titles on more than one sheet.
  - (v) Information as to owners and occupiers of lands affected by the proposal is not to be shown on plan of survey.
  - (vi) Each plan lodged shall be accompanied by a dye-line copy thereof appropriately tinted to illustrate the proposal and noted with the names and addresses of the owners and occupiers of affected lands as at the date of survey.

- 7.28 All direct bearings and distances required for describing the relative positions of measured portions shall be calculated and noted on the plan.
- 7.29 Astronomical observations are to be shown in a table on plan under the headings of the observation station, body observed and variation between survey azimuth and true azimuth. Other details are to be shown in field notes and set out in the report as indicated in Par. 2.18 of these Directions.

### **CONTRACT FEES.**

- 8.1 A Surveyor shall be remunerated for services which he is authorised to perform according to the following scales of fees and payment shall be made after the service shall have been approved by the Surveyor- General, District Surveyor or officer duly authorised in that behalf, but an advance may be paid before such approval on certificate of any of these officers.
- 8.2 The following fees shall apply to allotments measured in individual sections and shall include all allots. measured whether they do or do not adjoin.

(i)

Number of Allotments in a section	Where average area is ¼ acre or less			Where average area exceeds ¼ ac. but is not more than ½ acre			Where average area exceeds ½ ac. but is not more than 1 acre		
	£	s.	d.	£	s.	d.	£	s.	d.
1	15.	0.	0.	16.	0.	0.	18.	0.	0.
2	18.	0.	0.	19.	0.	0.	23.	0.	0.
3	21.	0.	0.	23.	0.	0.	27.	0.	0.
4	24.	0.	0.	26.	10.	0.	31.	0.	0.
5	27.	0.	0.	30.	0.	0.	35.	0.	0.
6	30.	0.	0.	33.	0.	0.	38.	10.	0.
7	32.	10.	0.	36.	0.	0.	42.	0.	0.
8	35.	0.	0.	39.	0.	0.	45.	0.	0.
9	37.	10.	0.	42.	0.	0.	49.	0.	0.
10	40.	0.	0.	45.	0.	0.	52.	10.	0.
11	42.	5.	0.	47.	10.	0.	55.	5.	0.
12	44.	10.	0.	50.	0.	0.	58.	0.	0.
13	46.	15.	0.	52.	10.	0.	60.	15.	0.
14	49.	0.	0.	55.	0.	0.	63.	10.	0.
15	51.	5.	0.	57.	10.	0.	66.	5.	0.
16	53.	10.	0.	60.	0.	0.	69.	0.	0.
17	55.	15.	0.	62.	10.	0.	71.	15.	0.
18	58.	0.	0.	65.	0.	0.	74.	10.	0.
19	60.	5.	0.	67.	10.	0.	77.	5.	0.
20	62.	10.	0.	70.	0.	0.	80.	0.	0.
For each allotment more than 20 in a section	2.	5.	0.	2.	10.	0.	2.	15.	0.

- (ii) For each angle or tangent point in the external boundaries of the part or parts of each section measured £1. 1. 0.
- (iii) For all deflections from a straight line in the side boundaries of allotments and in the general run of the back boundaries provided such angles are not included in (ii) £1. 1. 0. per angle.
- (iv) For each curved boundary in individual Allotments £1. 1. 0. per lot.
- (v) For each allotment in which a close cannot be determined by inspection £1. 1. 0.
- (vi) Connections 5s. per 100 feet.
- (vii) Easements 7s. 6d. per 100 feet.

**Note:** All claims under (vi) and (vii) to be to the nearest 100 feet an exact 50 feet to be increased by 50 feet.

- (viii) For each concrete block or permanent mark placed £3. 3. 0.
- (ix) For each reference mark placed 15s.
- (x) For each reference or permanent mark found and recorded 10s.
- (xi) The undermentioned increases will apply to items (i), (ii), (iii), (iv), (v), (vi) and (vii).

Category	(1) Level to gently undulating	(2) Gently undulating to strongly undulating	(3) Strongly undulating to steep
(a) Clear to very open timber little or no undergrowth	nil	10%	20%
(b) Clear to very open timber light undergrowth	15%	25%	40%
(c) Clear to very open timber medium undergrowth	30%	45%	60%
(d) Fairly dense timber some undergrowth	30%	45%	60%
(e) Clear to open timber with dense undergrowth	40%	55%	70%
(f) Dense timber and dense undergrowth	60%	75%	90%
(g) Dense lantana or blackberry	100%	120%	140%

For rocky broken surface add an addition of up to 20% increase.

8.3 The following fees shall apply to portion surveys:-

- (i) For the first 80 chains of boundaries of each portion, 5s. per chain the order of priority for inclusion in this category to be –

- (a) Re - defined marked lines.

- (b) Newly marked lines.

- (c) Unmarked traverse lines.

Category (a) is to be exhausted prior to using Category (b) and Category (b) is to be exhausted prior to using Category (c).

Provided that where the survey is such that the total length of the boundaries measured, whether of one portion or two or more adjoining portions is less than 80 chains a starting fee of £10 plus 2s. 6d. per chain of the boundaries measured shall be paid. Portions separated by a road of even width not in excess of three chains shall be deemed to be adjoining for the purpose of this subparagraph.

- (ii) For re- definition of marked boundary lines after the first 80 chains, 4s. 3d. per chain.
- (iii) For marked boundary lines not included in (i) and (ii), 3s. 6d. per chain.
- (iv) For unmarked traverse lines measured to define former boundaries not included in (i), 3s. per chain.
- (v) For connections involving re- definition of marked lines 3s. 6d. per chain.
- (vi) For connections not involving re- definition 2s. 6d. per chain.
- (vii) For unmarked traverses of races etc. 3s. per chain.

Note: - All claims under (i) to (vii) to be to the nearest chain, an exact  $\frac{1}{2}$  chain to be increased by  $\frac{1}{2}$  chain.

- (viii) For each marked angle in a portion boundary, 15s.  
For each unmarked angle in a portion boundary, 7s. 6d.  
For each angle of an unmarked race traverse other than extremities, 7s. 6d.
- (ix) Obliteration of former corner marking, 5s. per corner.
- (x) Reserved roads within portions.  
Where of regular width not exceeding 3 chains in width 4s. 6d. per chain for the run side and cosecants, plus 15s. per angle on the run side other than terminals.  
Where of irregular width where dimensions along both sides are required to be shown and for regular widths exceeding 3 chains, 3s. 6d. per chain on both sides together with 15s. per angle on one side other than terminals.

- (xi) For each reference mark placed 15s.
- (xii) For each reference mark or permanent mark found and recorded 10s.
- (xiii) For each concrete block or Permanent Mark placed £3. 3. 0.
- (xiv) For each numeral or letter placed on a reference tree fence post or peg etc. 2s.
- (xv) The following increases for difficulty may be claimed in respect of subparagraphs (i), (ii), (iii), (iv), (v), (vi), (vii) and (x) other than for angles in (x)

Category	SLOPES			
	3° or less	Over 3° not more than 10°	Over 10° not more than 20°	Over 20°
(a) Plain to scattered timber and/or undergrowth	Nil	10%	30%	80%
(b) Medium forest with slight undergrowth	20%	30%	60%	100%
(c) Thickly timbered with slight undergrowth	40%	60%	80%	120%
(d) Medium mallee	40%	60%	80%	120%
(e) Openly timbered fairly dense undergrowth	40%	60%	80%	120%
(f) Thickly timbered with medium undergrowth	60%	80%	120%	150%
(g) Openly timbered with dense non- tropical undergrowth	60%	80%	100%	120%
(h) Dense mallee	60%	80%	100%	120%
(i) Densely timbered with dense seedling growth and undergrowth	80%	100%	120%	150%
(j) As in (i) with vine scrub in gullies	100%	140%	180%	200%
(k) Dense rain forest or lantana	200%	240%	270%	300%

Where more than one classification is involved the District Surveyor may indicate on the instruction that an average of two or more categories are to apply

- (xvi) To determine the percentage increase for difficulty for a survey all unreduced chainages of 100 links or more are to be scheduled in columns according to slopes 3 degrees or less, over 3 degrees and not more than 10 degrees, over 10 degrees and not more than 20 degrees and over 20 degrees as recorded in field notes fractions less than one link to be omitted.

Total chain ages in each group to be multiplied by the percentage increase for that group in the category indicated on instructions and a weighted average percentage obtained. The nearest whole figure to be adopted.

**PUBLIC ROADS.**

8.4

- (i) Where of regular width not exceeding 3 chains in width 6/- per chain for the run side and cosecants.
- (ii) Where of irregular width or of regular width in excess of 3 chains, 4/6 per chain on both sides. (iii) For connections involving redefinition 3s. 6d. per chain.
- (iii) For connections not involving redefinition 2s. 6d. per chain.
- (iv) For each reference mark placed 15s.
- (v) For each reference mark or permanent mark found and recorded 10s.
- (vi) For each concrete block or Permanent Mark placed £3. 3. 0.
- (vii) For each numeral or letter placed on a reference tree, fence post or peg etc. 2s.
- (viii) For each angle on the run side including terminals 15s.
- (ix) Increases for difficulty may be claimed in respect of subparagraphs (i), (ii), (iii), (iv) hereof as set out in Paragraphs 8.3 (xv) and (xvi) of these Directions.

8.5 Reference trees to be treated as reference marks in respect of payment under these Directions.

8.6 For observation, without linear measurement, of any part or the whole of an established boundary for the purpose of initial azimuth or comparison of azimuth £3. 3. 0. provided that no other claim has been approved under these directions in respect thereof and further provided that where the claim is for a length of less than 18 chains payment shall be limited to 3s. 6d. per chain.

8.7 For a series of astronomical observations for azimuth £7. 7. 0.

8.8 Travelling: - A fee of 3/- per mile on the forward journey only from the surveyors headquarters (as defined by the District Surveyor) to the job each day occupied in the field with a maximum of £3.15. 0. per day. Days allowed for this purpose to be as approved by the District Surveyor. In special cases, with the concurrence of the Surveyor General or Western Lands Commissioner, additional mileage may be allowed but the total claim for travelling in such circumstances shall not exceed 3s. 6d. per mile from the surveyors headquarters to the nearest survey, from survey to survey and upon completion of all instructions on hand for return to headquarters. Mileage claimed under this direction shall always be by the most direct practicable route.

8.9 Daily Rates: - For services to which the Schedule of Fees may not be applicable, remuneration may be allowed at a rate not exceeding £18.18. 0. per day for field service and not exceeding £14.14. 0. per day for office service.

- 8.10 For observation of the bearing to a Trigonometrical Station from a point on a boundary of a portion or road survey, 10s. 6d. Any such observation is to be subject to approval by the District Surveyor and is to be effected at a corner of a portion or an angle in a road survey if practicable.
- 8.11 For observation of bearings to sufficient Trigonometrical Stations from a point on or near a boundary of a portion or road survey sufficient to permit of computations of Transverse Mercator Co - ordinates and comparison with Grid Azimuth, £2. 2. 0. Any such observation is to be subject to approval by the District Surveyor and bearings are to be observed within a tolerance of 5 seconds. The fees payable under this Direction and paragraph 8.10 do not carry the increases provided by paragraphs 8.3 (xv) and (xvi) of these Directions.
- 8.12 A separate account shall be rendered for each survey performed on form B49, copies of which are obtainable from the Department of Lands. Particulars of charges made in accordance with these Directions shall be entered on the form.
- 8.13 Where charges are claimed at linear rates, each length should be recorded in the space provided on the back of form B49. Where a line is divided, part being charged for at one rate and part at another, each part shall be distinguished by a small mark, such as \*.
- 8.14 Payment of all moneys due will be made by crossed cheque forwarded to the address stated in the claim, unless an authority in a proper form, to pay in another manner has been supplied to the Department.
- 8.15 Claims for payment shall be rendered on form B49 within 30 days of the date upon which the service was completed; otherwise delay in payment may occur.
- 8.16 An overall surcharge may be claimed for all surveys performed in the following Counties at the rates set out hereunder.

County	Amount of Surcharge.
Clyde	10%
Delalah	10%
Evelyn	10%
Farnell	5%
Finch	10%
Fitzgerald	5%
Killara	5%
Landsborough	5%
Livingstone	5%
Menindee	5%
Mootwingee	5%
Narran	10%
Perry	5%
Poole	10%
Tandora	5%
Tara	5%
Thouleanna	5%
Tongowoko	10%



County	Amount of Surcharge.
Ularara	5%
Wentworth	5%
Windeyer	5%
Yancowinna	5%
Yantara	10%
Young	5%
Yungnulgra	5%

- 8.17 Where plans are not supplied by the surveyor a decrease of 5% may be applied to all fees other than for travelling and daily rates.

**ALIGNMENT, REALIGNMENT, REMARKING  
AND ALTERATION OF ALIGNMENT OF STREET  
ALIGNMENT OF STREETS**

- 9.1 The setting out and defining of carriageways and footways in streets and public places, commonly known as alignment, is carried out by the Minister for Lands on application by Municipal and Shire Councils, under Section 27 and 28, "Public Roads Act, 1902", and in accordance With the provisions of Sections 258 / 260 Local Government Act, 1919.
- 9.2 The carriageway in a street 66 feet wide shall, as a rule, be 42 feet and the footways 12 feet on each side. These may, however, be increased or decreased according to the breadth of a street and the requirements of a Council which requirements the measuring surveyor must ascertain. Where any street is aligned of uneven width, where practicable, adjacent building and kerb lines shall be parallel.
- 9.3 Full information respecting holdings abutting on the streets should be obtained - plans of original surveys and subdivisions should be inspected, and perusals made of the descriptions of grants and deeds of conveyance of adjoining lands, in order to ascertain the original intention with respect of the location of the streets, If it is found that the position of any street as defined on the ground is not in accord with such documentary evidence, such street should be located as nearly as possible in the position originally assigned to it, having due regard to the occupations adjoining it, and the avoidance of unnecessary interference with vested interests. The original width shall be adhered to, unless the existence of permanent structures fully warrant a slight diminution.
- 9.4 The Council shall satisfy the Minister that private subdivision streets, splayed corners and areas provided for road widening have been dedicated to the Public.
- 9.5 Connections shall be made to Trig. Stations when practicable, and to the nearest adjacent alignment survey for comparison for azimuth. At least two permanent marks or substantial reference marks shall be placed in suitable places, and connection thereto shown upon the plan. Connection shall also be made to any Survey Co-ordination Permanent Marks in the immediate locality (See Survey Co - ordination Act, 1949).

- 9.6 Both Kerb lines are to be measured and radiations taken from alignment pins to permanent buildings, both to be shown upon the plan; see Appendix "D".
- 9.7 Encroachment by structures of a permanent character and fences upon the footways should be located by measurements from the kerb lines; all buildings within four feet of the building lines shall, if possible, be located and shown upon the plan.
- 9.8 Connections shall be made between alignment pins at the intersections of the street as shown in Appendix "D".
- 9.9 Excepting where building lines junction at an acute angle of less than 75 degrees, the markings of the alignment should be placed at the intersection of the kerb and building lines unless prevented by obstructions, in which latter case, such marking may be placed along the kerb line and the distance from the intersection noted upon the plan. An angle in a kerb line should be marked and if the intersections of streets are not intervisible, markings may be introduced at suitable intervals, not more than ten chains apart. Where building lines junction at an acute angle of less than 75 degrees alignment markings are to be placed in the kerb lines rectangularly from the point of junction of the building lines.
- 9.10 Alignment markings shall not be placed at the intersection of aligned streets with those not yet aligned.
- 9.11 Streets necessitating alignment by surveys shall be measured and marked in accordance with Appendix "D". Full information with respect to measurement, together with calculation of curves, to be indicated upon the plan as shown on Appendix "D".
- 9.12 Alignment pins used for marking the alignment shall be iron castings, open box style, 4 inches x 4 inches x 18 inches which should be supplied by the Council, and be in readiness at time of survey. These are available at the Department of Lands as also are castings 24 inches long for use in sandy soils.
- 9.13 The Surveyor shall ensure that the necessary markings have been placed in their proper positions before transmitting his plan of survey, which fact should be reported in his letter of transmission.
- 9.14 The plan of survey shall be plotted to a convenient scale in feet, according to the amount of information required to be shown; plan to be neatly drawn upon the best tracing linen using best quality waterproof black drawing ink. All measurements other than offsets shall be in feet and decimals thereof. Connections, boundaries of subdivision titles and kerb lines are to be shown respectively by short, medium, and long broken lines. The layout of the plan to be generally in accordance with Appendix "D".
- 9.15 The various classes of buildings together with offsets thereto from the kerb line should be shown upon the plan in feet and inches and indicated as shown in Appendix "D". Offset from kerb as laid to kerblines should be shown in feet and inches.

- 9.16 A schedule of the streets proposed to be aligned with particulars as to terminals, width of carriageways and of footways, as well as the extent of encroachments, &c. should also be shown.
- 9.17 Alignment markings placed should be indicated by black squares; alignment marks found should be indicated by open squares. See Appendices "D" and "E".
- 9.18 The boundaries of grants, if correctly located, to be shown upon the plan in firm lines, and by broken lines when their location is doubtful. When building lines are identical with grant boundaries, it will be sufficient to note upon the plan the original lengths of such boundaries for purpose of comparison. Information respecting private subdivisions to be shown in broken lines.
- 9.19 The names of owners and occupiers of any buildings encroaching upon the streets should not be indicated upon the plan, but full particulars with respect of such occupiers must be shown by the surveyor on a dye-line copy of the plan and forwarded therewith.
- 9.20 The field notes of survey to be transmitted with the plan.

### **REALIGNMENT OF STREETS**

- 9.21 A realignment of a street means a widening of such street in accordance with the provisions of Section 262, Local Government Act, 1919. The street must have been previously aligned and the realignment must be based on the alignment. The realignment method must not be used where the land is wholly free from buildings and obstructions.
- 9.22 Alignment pins must not be used to mark the proposed new building line but permanent marks or substantial reference marks shall be placed in the side streets in prolongation of the new alignment. See appendix "E". In the absence of suitable kerbs or gutters for such marking a concrete block shall be placed in the footway.
- 9.23 Commonwealth property shall not be included in the realignment as it is unaffected by State Legislation
- 9.24 Plans shall be drawn on tracing linen similarly to the requirements for alignment plans and in accordance with information in Appendix "E". Particulars of ownerships shall not be shown on plan but a dye-line copy of the plan shall be forwarded therewith setting out such information.

### **REMARKING AND ALTERATION OF ALIGNMENT OF STREETS.**

- 9.25 Remarking of alignment is self explanatory and alteration of alignment means, usually, the alteration in width of carriage and footways.
- 9.26 Survey shall be based on the alignment and alignment pins are to be used for remarking or for altered positions of alignment marks.

- 9.27 Plans shall be drawn on tracing linen similarly to requirements for alignment plans and information shall be similarly shown thereon in accordance with Appendix "D".



LINE	BEARING	DISTANCE
1	191° 25'	679.5
2	137° 30'	901.5
3	176° 00'	570.5
4	86° 00'	330.0
5	129° 31'	508.6
6	194° 44'	318.4
7	80° 31'	491.0
8	89° 59'	314.5
9	71° 01'	339.4
10	103° 25'	410.0
11	67° 34'	459.8
12	100° 51'	485.2

Offset area + .905 ac.

REFERENCE			MARKS	
CORNER	BEARING	FROM	DISTANCE	NO. ON TREE
A	215° 37'	Shybank	57.9	41
B	269° 00'	corner		41
	270° 00'	G.I. Pipe	2.27	
C	270° 00'	G.I. Pipe	2.31	
D	140° 25'	Gum	14.9	41
E	17° 40'	Box	10.0	40 41
F	270° 00'	G.I. Pipe	2.31	
G	225° 50'	corner	89.6	40 41
H	269° 00'	Rock mk	10.6	41
J	270° 28'	G.I. Pipe	2.31	
K	245° 14'	G.I. Pipe	2.34	

SCALE 20 CHAINS TO AN INCH.

All measurements shown in links.....

AZIMUTH TAKEN FROM X Y. ....  
FIELD BOOK LD 4608 PAGES 1-15

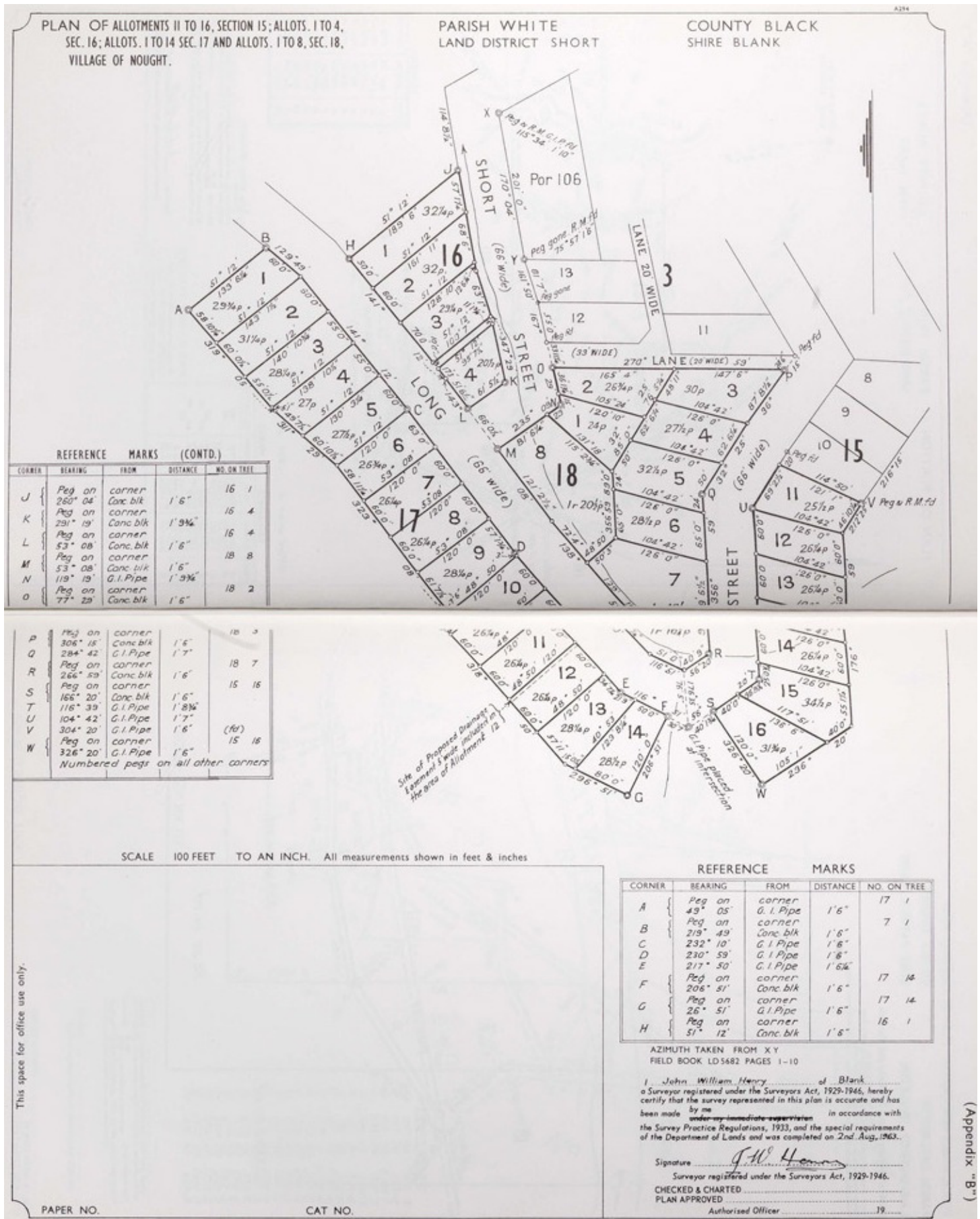
I, John Henry Williams  
of Dubbo  
a Surveyor registered under the Surveyors Act, 1929-1946, hereby  
certify that the survey represented in this plan is accurate and has  
been made by me \_\_\_\_\_ in accordance with  
\_\_\_\_\_ under my immediate supervision  
the Survey Practice Regulations, 1933, and the special requirements  
of the Department of Lands and was completed on 2nd Aug. 1963.

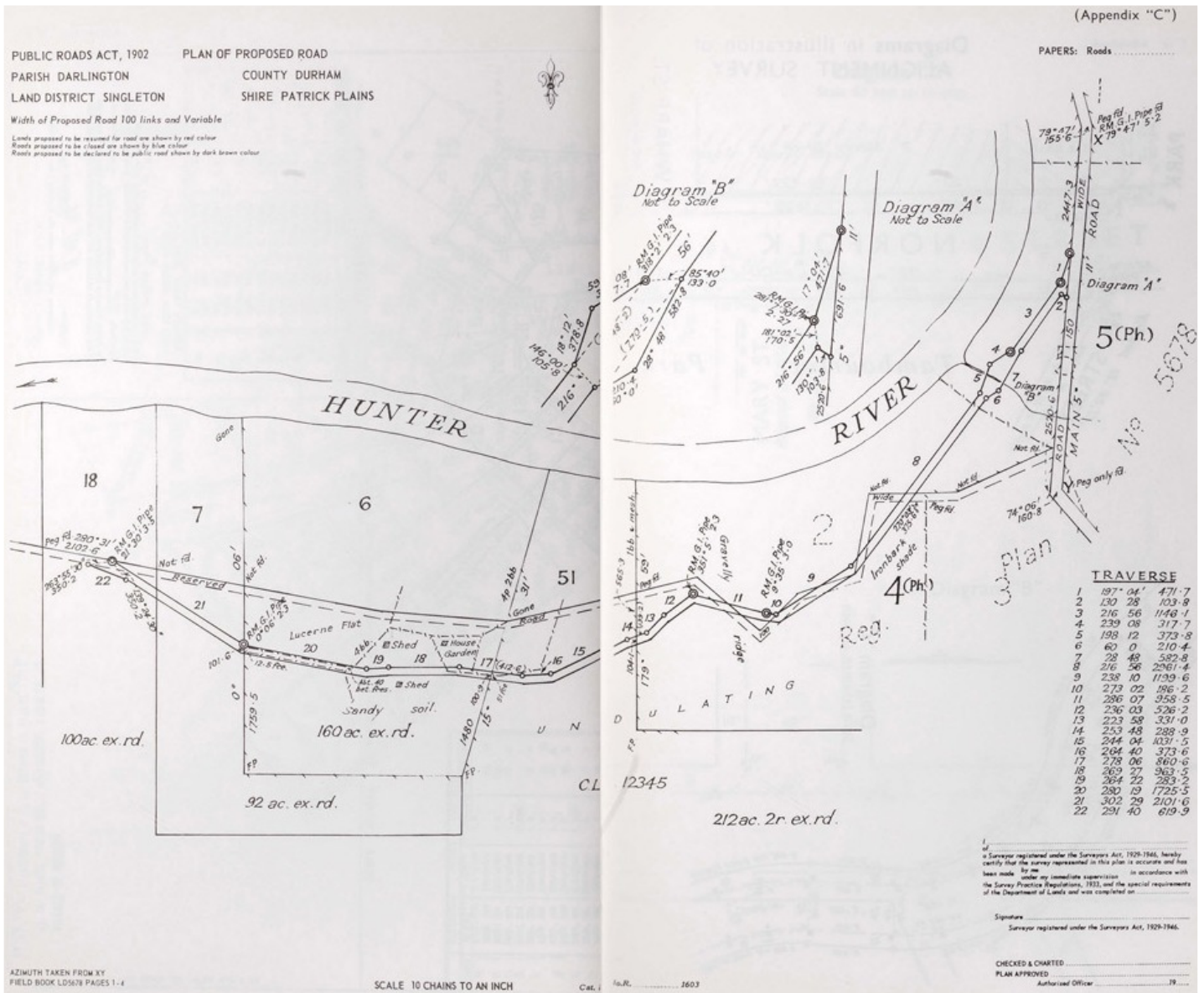
Signature J. H. Williams  
Surveyor registered under the Surveyors Act, 1929-1946.

This space for office use only.

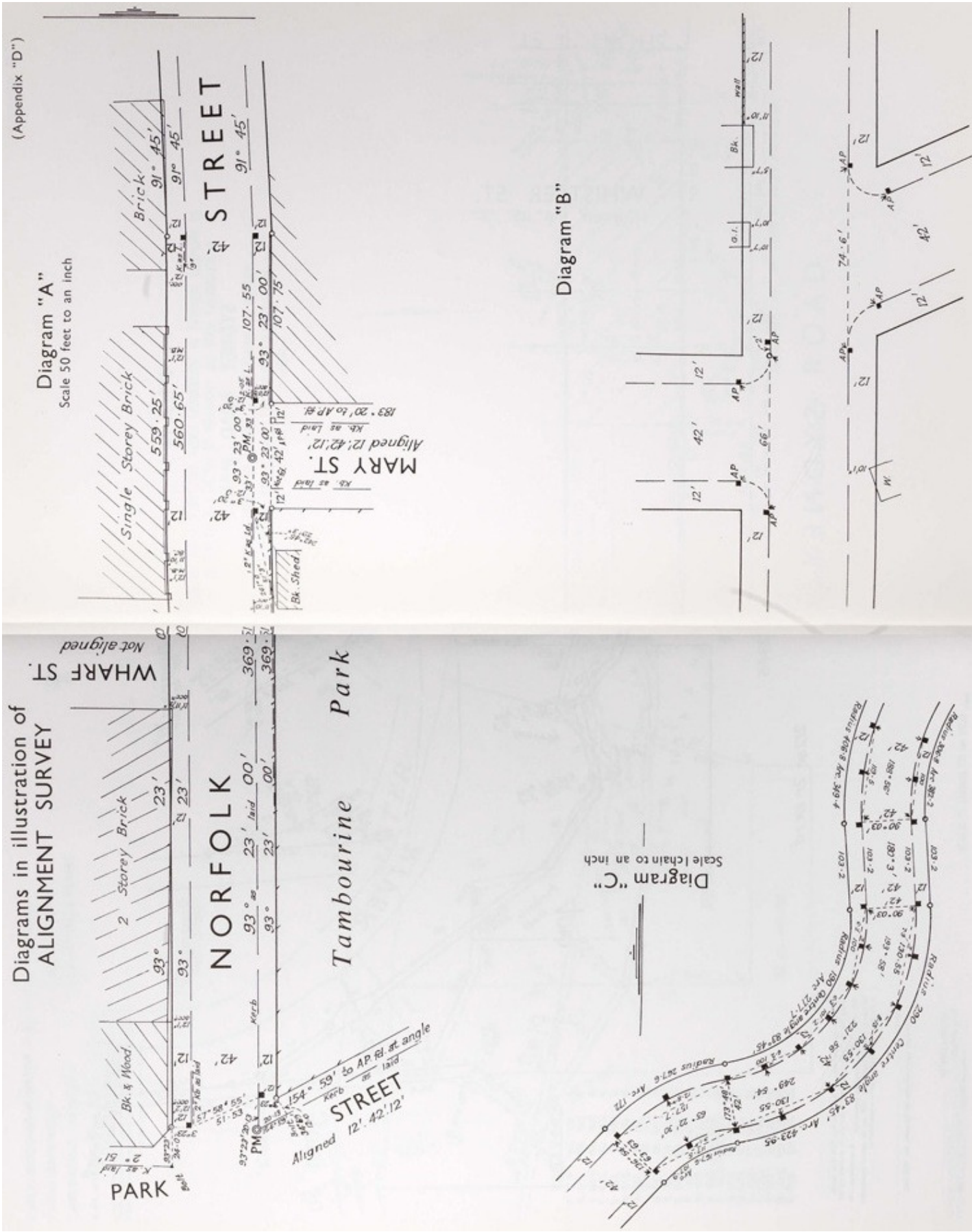
CHECKED & CHARTED .....  
PLAN APPROVED .....  
Authorized Officer ..... 19









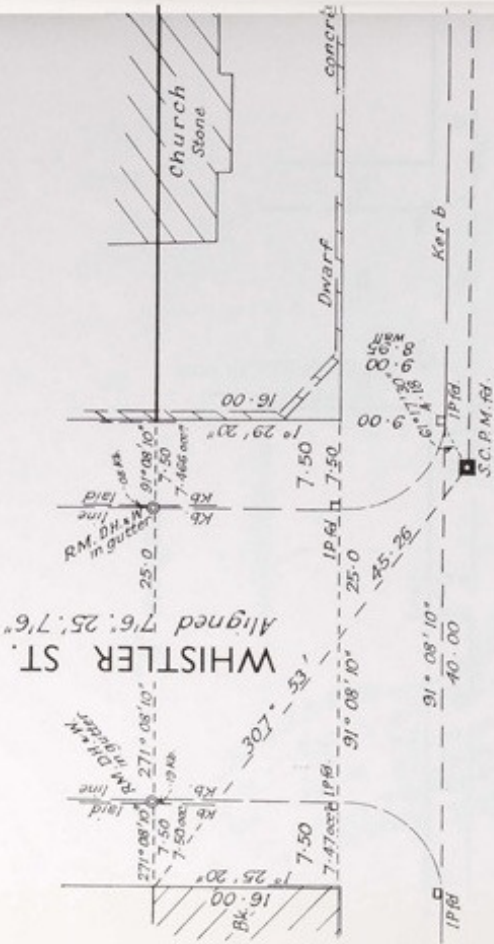




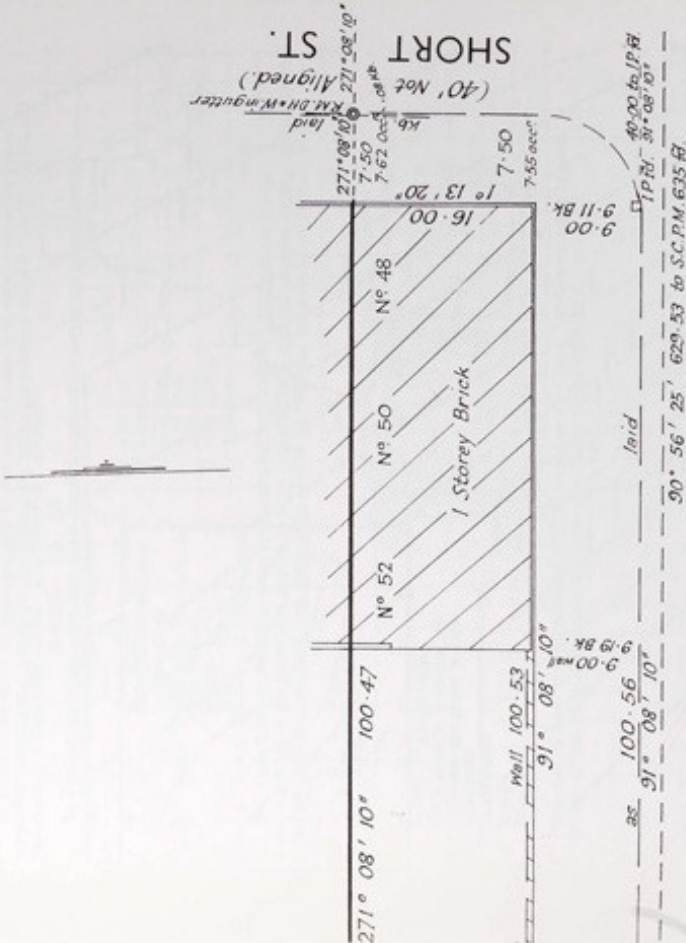
(Appendix "E")

— PLAN —

OF PROPOSED WIDENING BY REALIGNMENT UNDER THE PUBLIC ROADS ACT, 1960  
IN ACCORDANCE WITH THE PROVISIONS OF SEC. 262 L.G. ACT, 1919 OF  
**SYDNEY ROAD MANLY**  
PARISH OF MANLY COVE — COUNTY OF CUMBERLAND  
METROPOLITAN LAND DISTRICT — MUNICIPALITY OF MANLY  
— Scale 10 ft. to an inch —



SYDNEY



Aligned 9'.32' & variable 9' ROAD

## MAGNETIC DECLINATION

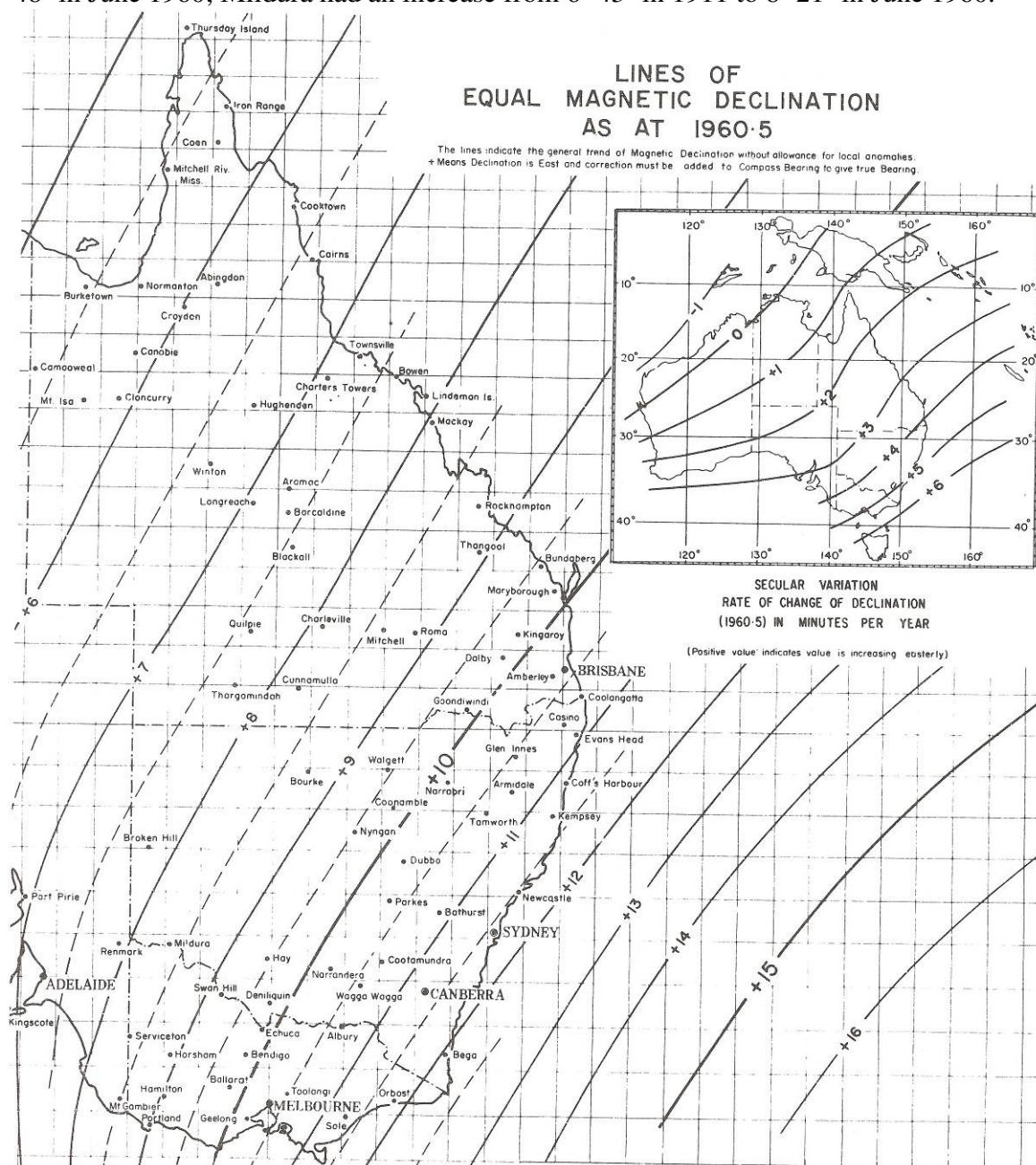
Magnetic Declination values in New South Wales are very regular. The isogonic lines are almost parallel but are subject to minor local variations in some localities.

Diagram hereunder illustrates the isogonic values at 30th June, 1960, and the secular variation is also shown thereon. It will be noted that declination values have been increasing at a rate of approximately 4 minutes per annum.

The Magnetic Declination of Sydney remained fairly static from 1840 until 1936 the range varying between 9° 15' E and 10° 00' E.

There has been a gradual increase from 9° 15' E in 1923 to 11° 36' E in June 1960.

Similar variations have been recorded elsewhere in the State; Canberra had an increase from 9° 18' E in 1913 to 11° 18' E in June 1960; Broken Hill had an increase from 6° 04' in 1923 to 7° 48' in June 1960; Mildura had an increase from 6° 43' in 1911 to 8° 21' in June 1960.



**DETERMINATION OF MEAN HIGH WATER.**

Mean High Water is by Common Law, the boundary of all land having frontage to tidal water. It is defined as the mean of all high tides, including both spring and neap tides, taken over a long period. Tidal waters may be either salt or fresh.

Determination of the actual limit of Mean High Water is not difficult where the foreshore is steep but in other instances, e.g. Mangrove Swamps, great care is necessary. For a satisfactory determination the mean of all high tides over a full lunation period of 29 days should be obtained by means of a tide gauge. Care must be taken to protect the gauge from wave action, to avoid river flood conditions and avoid wind conditions which could vary the water surface level.

The coast of New South Wales has a very uniform tidal plane and the time of local high water on the coast varies only slightly from that at Fort Denison in Sydney Harbour.

Mean High Water at Fort Denison is 4.69 feet above zero of the tide gauge at that station it also being 1.73 feet above standard Datum. Estimated tide values at Fort Denison are published daily. Where a foreshore has a reasonable slope mean high water can be determined with sufficient accuracy by taking two readings of high water at periods when Fort Denison high tide value is close to the mean, such readings to be adjusted having regard to the difference between 4.69 feet and the Fort Denison high tide values. Where necessary reference should be made to the Maritime Services Board for a check on the actual readings at Fort Denison.

For Sydney Harbour, Botany Bay and Port Hunter it is necessary to obtain the consent of the Maritime Services Board to the fixation of any boundary which defines mean high water.

In all other instances the consent of the Department of Lands is necessary except in cases where that Department consented to a determination within the previous 10 years and no substantial variation had taken place.

As a matter of interest mean high water above the zero of the respective gauges has been determined in New South Wales as follows

Sydney (Fort Denison)	4.69 feet
Iluka (inside entrance)	4.33 feet
Coffs Harbour	4.54 feet
Newcastle	4.58 feet
Port Kembla	4.29 feet
Moruya	4.02 feet
Eden	3.86 feet

The range between mean high water neap and mean high water springs at these stations gives some evaluation of the adjustment necessary to an observed local high tide reading having regard to the variation from the mean high water value of 4.69 feet from the estimated Fort Denison high tide. This range is as follows:-

	<u>Mean High Water</u> <u>Springs</u>	<u>Mean High Water</u> <u>Neap</u>	<u>Range</u>
Sydney (Fort Denison)	5.13 ft.	4.26 ft.	.87 ft.
Iluka	4.71 ft.	3.95 ft.	.76 ft.
Coffs Harbour	5.02 ft.	4.06 ft.	.96 ft.
Newcastle	4.99 ft.	4.17 ft.	.82 ft.
Port Kembla	4.69 ft.	3.89 ft.	.80 ft.
Moruya	4.36 ft.	3.68 ft.	.68 ft.
Eden	4.16 ft.	3.54 ft.	.62 ft.

Tide gauges have been established at other points on the Coast. Reference might be made to the appropriate District Engineer, Department of Public Works for details.

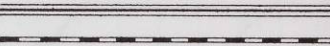
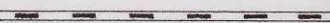

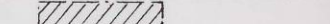
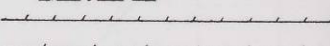
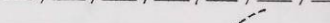

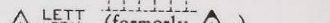
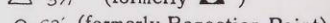
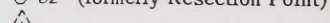

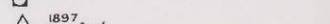


This schedule indicates symbols and boundaries used on all Departmental maps existing in 1959 and re-issues of those maps since that date. Some of the symbols and boundaries are now redundant but are repeated hereunder for information only. The new series set forth in Schedule "D" will be used on all future compilations.

State	+	+	+	+
Territorial Division				
County	x	x	x	x
Parish	.	.	.	.
Land District		++		++
Shire	+++			+++
Shire Riding	+	+	+	+
Urban Area	x	x	x	x
City, Town or Village	..	..	..	..
Town or Village under Local Govt. Act				
Suburban	+	+	+	+
Municipality (or City under Local Govt. Act)	x	x	x	x
Municipality Ward	++	++	++	++
Police Offences Act	+	+	+	+
Developmental Scheme (Town & Country Planning)	x	x	x	x
Population Area (Now redundant)				
Regulation of Buildings Area	oo	oo	oo	oo
Proclaimed Gold or Mineral Field				
Reserve From Conditional Sale within Gold Field				
Area of Erosion Hazard	xox			xox
Fauna Protection District or Bird and Animal Sanctuary	◇	◇	◇	◇
Pastures Protection District	o	o	o	o
State Forest	..	..	..	..
National Forest	+	+	+	+
Classified Area (Now redundant)				
State Coal Mine	□	□	□	□
Catchment Area	xx	xx	xx	xx
Land Acquired for Irrigation				
Irrigation Area				
Domestic & Stock Water Supply & Irrigation District ①	⊖	⊖	⊖	⊖
Water Trust District ②	o	o	o	o
Survey Area	s	s	s	s
Reserve from Lease or License				
do do Sale, Lease or License	.	.	.	.
do do Sale				
do do Occupation under Mining Act	△	△	△	△
do do Mining Lease	△	△	△	△
Pastoral Holding, Occn. License	⊖	x	⊖	x
and Pref. Occn. License	x	x	x	x
do do	⊖	xx	⊖	xx
do do	xx	xx	xx	xx
Maximum Withdrawal Area (Western Division)				

② Includes also Bore Water Trust District, Artesian Wells District, Irrigation Trust District, Flood Prevention Trust District.

NOTE When two boundaries are coincident, such as County & Parish, the more important should be delineated.

Railway--{on large scale map..... {on small scale map.....	
Public Road.....	
Surveyed Reserved Road .....	
T.S.R.etc. under P.P.Board Control (Now redundant) .....	
Fence....{when on a boundary..... {when not on a boundary.....	
Track .....	
Private Subdivision.....	
Horizontal Control Point or Trigonometrical Station.....	
(with Altitude in feet)	
	Major Minor Unobserved
Permanent Mark (Survey Co-ordination Act) .....	
Observing Station .....	
Astronomical Station .....	
Photo Centre.....	

See also Appendix "A", Survey Co-ordination Regulations.



## NEW SERIES 1959

## DISTINCTIVE BOUNDARIES &amp; SYMBOLS

used on new maps &amp; plans in the Department of Lands, N.S.W., 1961.

State.....	— + — + —
Territorial Division.....	— — — — —
County.....	— x — x —
Parish.....	— . — . —
Land District.....	— + — + —
Shire.....	— ++ — ++ —
Shire Riding.....	— + — + —
Urban Area.....	— U — U —
City, Town or Village.....	— π — π —
Town or Village under Local Govt. Act.....	— T — T —
Suburban.....	— π — π —
Municipality (or City under Local Govt. Act).....	— m — m —
Municipality Ward.....	— w — w —
Police Offences Act.....	— = — = —
Developmental Scheme (Town & Country Planning).....	— z — z —
Regulation of Buildings Area.....	— ∞ — ∞ —
Proclaimed Gold or Mineral Field.....	— I — I —
Reserve From Conditional Sale within Gold Field.....	— II — II —
Area of Erosion Hazard.....	— E — E —
Fauna Protection District or Bird and Animal Sanctuary.....	— ◇ — ◇ —
Pastures Protection District.....	— O — O —
State Forest.....	— : — : —
National Forest.....	— ÷ — ÷ —
State Coal Mine.....	— □ — □ —
Catchment Area.....	— C — C —
Irrigation Area.....	— A — A —
Domestic & Stock Water Supply & Irrigation District ①.....	— θ — θ —
Water Trust District ②.....	— ϕ — ϕ —
Survey Area.....	— S — S —
Reserve from Sale or Lease or License.....	— I — I —
do do Occupation under Mining Act.....	— Δ — Δ —
do do Mining Lease.....	— M — M —
Pastoral Holding, Occn. License { Surveyed.....	— ⋆ — ⋆ —
and Pref. Occn. License { Unsurveyed.....	— x — x —
do do Dividing Line { Surveyed.....	— ⋆ — ⋆ —
(Western Division) { Unsurveyed.....	— x — x —
Maximum Withdrawal Area (Western Division).....	— xx — xx —

① Includes also Flood Control & Irrigation District, Domestic & Stock Water Supply District, River Improvement District.

② Includes also Bore Water Trust District, Artesian Wells District, Irrigation Trust District, Flood Prevention Trust District.

**NOTE** When boundaries are concurrent they should be combined in the following example.....  
 .....County, Parish, Land District, Town, Police Offences Act and Reserve from Sale boundaries.

— x ++ π = — x ++ π = —

Railway { on large scale map.....	=====
{ on small scale map.....	=====
Public Road.....	=====
Surveyed Reserved Road.....	=====
Fence { when on a boundary.....	=====
{ when not on a boundary.....	=====
Track.....	=====
Private Subdivision.....	=====
Horizontal Control Point or Trigonometrical Station.....	Major Δ LETT 6/2'
(with Altitude in feet).....	Minor ○ 75'
.....	Unobserved Δ
Permanent Mark (Survey Co-ordination Act).....	□
Observing Station.....	Δ 1895 VAR 9° 15'
Astronomical Station.....	⊙ HAY
Photo Centre.....	○

See also Appendix "A", Survey Co-ordination Regulations.

**SUBJECT:** Reports accompanying topographical surveys of Rural Estates

To facilitate reference on specific aspects, it is required that particulars in reports be furnished under headings as follows:-

**OWNER:**

**AREA:**

**DATE OF INSPECTION:**

**SITUATION:** In respect to towns, railways, roads, schools, factories, public facilities etc.

**GEOLOGICAL FORMATION:** Soil, subsoil and physical characteristics. If situated on the Tablelands or Slopes, give approximate range of elevation in respect to sea level.

**WATER SUPPLY:** Nature and sufficiency.

**AVERAGE ANNUAL RAINFALL:** Incidence of rainfall to be supplied if available.

**CLASSIFICATION:** To include extent, nature and condition of arable areas and estimated cost of any necessary clearing.

**TIMBER:**

**EROSION:**

**NOXIOUS WEEDS AND**

**ANIMALS:**

**GRAZING AND FARMING CAPABILITIES:**

All available information re stock capacities and farming yields, supported by relevant figures; character of the pasturage; suitability for pasture improvement. (See para.3 - Form A.379).

**PURPOSES FOR WHICH USED:**

**PURPOSES FOR WHICH**

**ADAPTED:**

**VALUES OF BUILDINGS,**






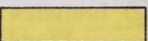
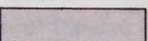
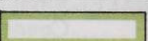



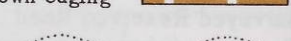
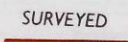
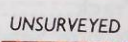


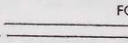
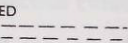
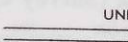


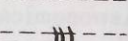

**WATER SUPPLY AND**

**FENCING:**

Description and approximate age of buildings to be supplied. In regard to fencing a general statement only is required at this stage, but values per chain should be noted on the topo. plan; natural barriers on boundaries, not needing fencing, are to be indicated.

**PLAN:**

Topographical plan to be prepared to conform with instructions and legend indicated overleaf.

L E G E N D		
Boundaries of Estate .....	red edging	
LAND CLASSIFICATION:-		
First class Agricultural land .....	red tint	
Second class Agricultural land .....	blue tint	
First class Grazing land .....	light brown tint	
First class Grazing land (high grade dairying) .....	dark brown tint	
Second class Grazing land (high grade dairying) .....	yellow tint	
Inferior or Unimprovable land .....	light purple tint	
Land carrying green timber .....	green edging	
Land cleared for cultivation .....	dark purple edging	
Land under pasture improvement .....	dark brown edging	
Land suitable for pasture improvement .....	broken brown edging	
Boundaries of soil classifications .....	(dots)	
ROADS IN USE:-		
Concrete or Sealed .....	 SURVEYED	 UNSURVEYED
Metalled or Gravelled .....		
Earth (formed) .....		
Earth (unformed) .....		
Impassable for motor traffic in bad weather .....		
Bridle Tracks (non-vehicular) .....	(strokes)	



Bridges (Wood except where shown as masonry or iron) .....	
<b>RAILWAYS:-</b>	
Railway Line (with station) .....	
Embankment .....	
Cutting .....	
<b>BUILDINGS:-</b>	
House, shed etc. ....	■ ■
Garage .....	■ G
School .....	■ S
Hotel .....	■ H
Blacksmith Shop (Forge) .....	■ F
Church .....	+
Mill or Factory .....	⬤
Post Office .....	P
Post & Telegraph Office .....	T
<b>FEATURES:-</b>	
Running Streams (Permanent full length) by Blue infil .....	
Running Streams (Permanent full length) by Blue band along creek .....	
Intermittent Streams (Permanent Waterholes to be located) .....	
Excavated Ground Tanks .....	
Constructed Dams .....	
Wells .....	
Bores - Flowing .....	
Bores - Pumped .....	
Wind Pump .....	
Pipe Line .....	
Water Channel (Irrigation) .....	
Main Ridges .....	
Swamp .....	
<b>MISCELLANEOUS:-</b>	
Fences (with description) Class of fence and value per chain .....	
Change in fence .....	
Telephone Lines .....	
Electric Transmission Line .....	
Stone Wall .....	
Fully improved carrying capacity in acres per sheep .....	 <b>NOTE:-</b> Show cost. Nil where fully improved
Fully improved carrying capacity in acres per beast .....	
Additional cost to kill timber and scrub for grazing .....	
Further cost for full clearing for Agriculture .....	
<b>NOTE:</b> County, Parish, Land District Boundaries, etc. not to be shown on plan.  Notes indicating physical characteristics should be brief. Any other special features not covered by the foregoing can be indicated in a manner considered appropriate by the Surveyor	



**DETERMINATION OF PERCENTAGE INCREASE UNDER PARAGRAPH 8.3 (XV).**

Chainages with slopes of 3° or less	Chainages with slopes over 3° not more than 10°	Chainages with Slopes over 10° not more than 20°	Chainages with slopes over 20°
501	462	378	502
423	507	421	283
315	180	360	428
503	432	502	501
321	321	176	399
262	504	375	176
503	217	<u>436</u>	<u>432</u>
271	503	2648 Links	2721 Links
426	172		
286	325		
503	<u>436</u>		
218	4059 Links		
293			
<u>420</u>			
5245 Links			
Category (b)	5245 x 20	= 104900	
	4059 x 30	= 121770	
	2648 x 60	= 158880	
	<u>2721</u> x 100	= <u>272100</u>	
	14673	<u>657650</u>	
		14673	= 44.8
	Adopt 45%		

**ABBREVIATIONS OF WORDS**

to be used on maps, plans and field notes.

About ..... Abt.	District ..... Dist.	Methodist ..... Meth.
Acre ..... Ac.	Division ..... Div.	Metre ..... m.
Agricultural ..... Agr.	Electorate ..... Elect.	Metropolitan ..... Metrop.
Altitude ..... Alt.	Environs ..... Envs.	Mile (miles) ..... Mi.
Applicant ..... App.	Estate ..... Est.	Military ..... Mil.
Approved ..... Appd.	Examined ..... Exd.	Millimetre ..... m.m.
Approximate ..... Approx.	Executive Council Ex. Co.	Minimum ..... Min.
Association ..... Assoc.	Exclusive ..... Excl., Ex.	Ministerial ..... Minl.
Astronomical ..... Astro.	Executors ..... Exors.	Miscellaneous ..... Misc., Ms.
Australian ..... Aust.	Extension ..... Extn.	Mountain, Mount Mt.
Avenue ..... Ave.	Field Book ..... F.B.	Municipal or
Azimuth. .... Az.	Folio ..... Fol.	Municipality ..... Mun.
Bank ..... Bk.	Foot (or feet) ..... Ft.	Navigable ..... Nav.
Baptist ..... Bap.	Galvanized Iron .. G. I.	Number ..... No.
Bench Mark. .... B.M.	Gazette ..... Gaz.	Occupation ..... Occ.
Board ..... Bd.	Geodetic ..... Geod.	Occupier ..... occ.
Book ..... Bk.	Government ..... Govt.	Old Roll (plan) ..... o.r.
Boundary ..... Bdy.	Governor ..... Gov.	Original ..... Orig.
Bridge ..... Br.	Grant ..... Gt.	Others ..... Ors.
By Original ..... b. o.	Heliograph ..... Helio.	Paddock ..... Pad.
Business ..... Bus.	Highway ..... Hwy.	Parish ..... Ph.
Cardinal Points. (N., S., E., W.)	Hospital ..... Hosp.	Part ..... Pt.
Catalogue ..... Cat.	Improvement ..... Impt.	Pastoral ..... Past.
Cemetery ..... Cem.	Inclusive ..... Inc.	Pastures Protection
Centimeter ..... C.M.	Institute (or Institution) Inst.	Board ..... P.P.Bd.
Central ..... Cent.	Irrigation ..... Irr.	Peak ..... Pk.
Centennial ..... Centen.	Island ..... Is.	Permanent ..... Permt.
Certificate ..... Cert.	Junior ..... Jun.	Permanent Mark... P.M.
Certificate of Title . C.T.	Kilometer ..... k.m.	Permissive Occupancy
Chain ..... Ch.	Land Board District L.B.D.	..... Per. Occ.
Church ..... Ch.	Large flat (plan) ... L.F.	Per Original ..... p.o.
Church of England C. of E.	Latitude ..... Lat.	Place ..... Pl.
Commissioners ... Commrs.	Lease ..... Lse.	Point ..... Pt.
Common ..... Com.	Leasehold ..... Lhold.	Police Station ..... P.S.
Company ..... Co.	License ..... Lce.	Portion ..... Por.
Concrete Block ... Conc. Bk.	Limited ..... Ltd.	Post Office ..... P.O.
Confirmed ..... Confd.	Link ..... Lk.	Pre-emptive ..... Pre.
Co - operative ..... Co - op.	Lithograph ..... Litho.	Presbyterian ..... Prebyt.
Corporation ..... Corp.	Longitude ..... Long.	Private ..... Priv.
County ..... Co.	Magnetic ..... Mag.	Proclamation ..... Procl.
Creek ..... Ck.	Main Northern	Proposed ..... Pro.
Crescent ..... Cres.	Railway ..... M.N. Rly.	Proprietary ..... Pty.
Crown Lands Consolidation Act	Main Southern	Public ..... Pub
..... C.L.C. Act	Railway ..... M.S. Rly.	Purchase ..... Pur.
Declination ..... Dec.	Main Western	Purpose ..... Purp.
Dedicated ..... Ded.	Railway ..... M.W. Rly.	Railway ..... Rly
Department ..... Dept	Maximum ..... Max.	Range ..... Ra.
Distance ..... Dist.	Memorandum ..... Memo.	Recorded (plan) .... Rec.

Recreation..... Rec.	Senior..... Sen.	Transverse Mercator }
Reference..... Ref.	Settlement ..... Set.	Co-ordinates .T. M. Co-ords
Reference Mark... R.M.	Sheet ..... Sh.	Traverse ..... Trav.
Register..... Regr.	Society ..... Soc.	Trigonometrical ... Trig.
Regulation ..... Reg.	State Survey	Trustees ..... Trust.
Reserve ..... Res.	Mark ..... S.S.M.	Unnecessary ..... Unnec.
Residence ..... Res.	Station..... Stn.	Variation ..... Var.
River ..... Riv., R.	Street..... St.	Village..... Vill.
Road ..... Rd.	Subdivided..... Subd.	Volume..... Vol.
Roll (plan) ..... R.	Subdivision ..... Subdn.	Wesleyan..... Wes.
Roman Catholic... R.C.	Suburban..... Sub.	Wharf ..... Whf.
Saint..... St.	Telephone ..... Tel.	Wireless Transceiver. .W / T
School..... Sch., S.	Temporary ..... Temp	Yard ..... Yd.
Section..... Sec.		Yards (stock)..... Yds.

Some of these abbreviations may apply to various changes of a word, e.g. "App" for applicant, application, applied for; and others may apply to several words, e.g. "co." for County, Company, Council. The correct word should readily be obtained from the context

**LETTERS SIGNIFICANT OF HOLDINGS & RESERVES**

used on maps &amp; plans in the Department of Lands, N.S.W., 1961.

**HOLDINGS**

A.A.N.I.B. ...After Auction Non-irrigable Block	N.I.L. ....Non-irrigable Lease
A.A.P. ....After-auction Purchase	N.I.P. ....Non-irrigable Purchase
A.A.T.L.B...After-auction Town Lands Block	N.R.C.P. ....Non-residential Conditional Purchase
A.A.T.T.L.L. After Auction Tender Town Lands Lease	O.L. ....Occupation License
A.Cn.L.....Additional Crown-lease	P.G.L. ....Private Gold Lease
A.C.P. ....Additional Conditional Purchase	P.H.....Pastoral Holding
A.C.P.L.....Additional Conditional Purchase Lease	P.L. ....Pastoral Lease (Church and School Lands)
A.H.F. ....Additional Homestead Farm	P.M.L. ....Private Mineral Lease
A.H.L.....Additional Homestead Lease	P.M.T.....Private Mining Tenement
A.H.S.....Additional Homestead Selection	P.O.L. ....Preferential Occupation License
A.L.....Annual Lease	P.P.A. ....Prickly-pear Agreement
A.N.R.C.P...Additional Non-residential Conditional Purchase	P.P.L.....Prickly-pear Lease
A.R.L.....Additional Residential Lease	P.S. ....Public School
A.S.H. ....Additional Suburban Holding	P.W.P.....Public Watering Place
A.S.L. ....Additional Settlement Lease	R.A. ....Resumed Area
A.T.P. ....After-tender Purchase (Clo. Sett.)	R.L.....Residential Lease
A.W.L.....Artesian Well Lease	R.L.P. ....Residential Lease Purchase
B.L.....Business License	R.S.S.H.....Returned Soldiers Special Holding
C.L.....Conditional Lease	R.S.S.H.P....Returned Soldiers Special Holding Purchase
C.P. ....Conditional Purchase	S.A.....Special Area
C.P.L.....Conditional Purchase Lease	S.C.P.L. ....Special Conditional Purchase Lease
C.S. ....Conditional Sale	S.G.P. ....Soldiers Group Purchase
Cn.L.....Crown-lease	S.G.P.A.....Soldiers Group Purchase Area
C.S.L.....Closer Settlement Lease	S.H.....Suburban Holding
D.P.....Deferred Payments	S.H.P. ....Suburban Holding Purchase
F.L. ....Farm Lease (Church and School Lands)	S.L. ....Settlement Lease
G.L.....Gold Lease	Sc.L. ....Scrub Lease
G.P.L. ....Group Purchase Lease	Sn.L. ....Snow Lease
H.F.....Homestead Farm	Sp.L. ....Special Lease
H.L.....Homestead Lease	S.P. ....Settlement Purchase
H.S.....Homestead Selection	S.P.L.....Settlement Purchase Lease
I.A.H.....Irrigation Area Holding	S.P.A. ....Settlement Purchase Area
I.F.L.....Irrigation Farm Lease	S.P.G.L. ....Special Private Gold Lease
I.F.P. ....Irrigation Farm Purchase	Sp.Pur. ....Special Purchase
I.L. ....Improvement Lease	S.P.M.L. ....Special Private Mineral Lease
I.P. ....Improvement Purchase	T.L.....Tenant's Lease
Inf.L.L. ....Inferior Lands Lease	T.L.B. ....Town Lands Block
L.A.....Leasehold Area	T.L.L. ....Town Lands Lease
M.C.P. ....Mining Conditional Purchase	T.L.P.....Town Lands Purchase
M.L.....Mineral Lease	T.Pur. ....Tender Purchase (Crown lands)
M.P. ....Mining Permit	T.P. ....Tender Purchase (Clo. Sett.)
M.R.....Miner's Right	V.L.O.....Volunteer Land Order
M.T.....Mining Tenement	W.E.L. ....Week-end Lease
N.I.B. ....Non-irrigable Block	W.E.L.P.....Week-end Lease Purchase
	W.L.L. ....Western Lands Lease
	18th.Sec.Lse. 18th. Section Lease

<b>RESERVES</b>	
A.R. ....Aborigines Reserve Ace. R.....Access Reserve C.R.....Camping Reserve F.R.....Forest Reserve G.R. ....Old Government Reserve Q.R. ....Quarry Reserve R.P.B. ....Public Buildings Reserve Rec.R. ....Recreation Reserve R.R.F. ....Refuge from Flood Reserve R.R.....Railway Reserve S.F. ....State Forest T.C.....Temporary Common	T.R.....Trigonometrical Reserve T.S.R. ....Travelling Stock Reserve V.R. ....Village Reserve W.R. ....Water Reserve R.fm.Sle.....Reserve from Sale R.fm.Lse.....Reserve from Lease R.fm.Lce.....Reserve from License R.fm.Lse. or Lce. .... Reserve from Lease or License R.fm.S. or L.    Reserve from Sale or Lease R.fm.S. or L.    Reserve from Sale or Lease other than A.L. than Annual Lease
These abbreviations are to be used only where there is insufficient space, otherwise the particulars are to be written at length.	

*End of Document*