Section

DEPARTMENT OF MINES
SOUTH AUSTRALIA

Rept.Bk. 59/110
G.S. 3006
D.M. 1829/64
Hyd. 1633

REPORT ON DRAINAGE PROSPECTS
Pt. Section 95, Hd. Noarlunga.

Town Planner (for F. Hoffman).

This area was inspected on 28.10.64.

REQUIREMENTS

Advice on the suitability of the proposed subdivision regarding size of allotments and the possibility of disposing of septic tank effluent with each allotment.

LOCATION, TOPOGRAPHY

Situated approximately ½ mile south of Aldgate, the proposed subdivision adjoins Cricklewood Road and occupies portion of the southern slopes of a gully. Elevation of the land surface varies from more than 1,520 feet in the south to approximately 1,480 feet in the north. Surface gradient is about 1 in 9 towards a small creek lying to the north of the proposed subdivision.

Average rainfall in the area is approximately 40 inches per annum.

GEOLOGY AND HYDROLOGY

Rocks occurring in the area are part of the Aldgate Sandstone of the Torrensian Series (Adelaide System) and consist of felspathic sandstone with occasional thin beds of shale. In the vicinity these rocks are dipping south easterly at angles of 15°-20°, but there are few outcrops within the proposed subdivision.

Basement rock in the area is mainly obscured by a yellow brown silty clay soil which contains abundant fragments of quartz and sandstone. Lateritic gravels were also observed in some of the higher parts of the area. The soil is generally not more than 1-2 feet thick, except possibly in the lower parts of the area, where it may be thicker.

Groundwater occurring in the area is normally of good quality and may be used for all general purposes. Where the water occurs in shales salinity is generally higher than in the sandstone.

Drainage of septic tank effluent into the outer weathered zone of the sandstone is expected to be satisfactory. It is considered that effluent could be disposed of within each allotment by means of shallow pits. In order to reduce the possibility of drainage affecting allotments at lower levels it is suggested that drainage pits be located in the higher parts of each allotment.

Some of the allotments in the proposed subdivision lying to the east may be affected by drainage from the higher blocks, particularly from "C", "D" and "E". In the proposed sub-division to the east allotment 8 would be most affected, and if development of both sub-divisions is considered, then it is suggested that allotment 8 be made into a reserve or incorporated into adjoining allotments.

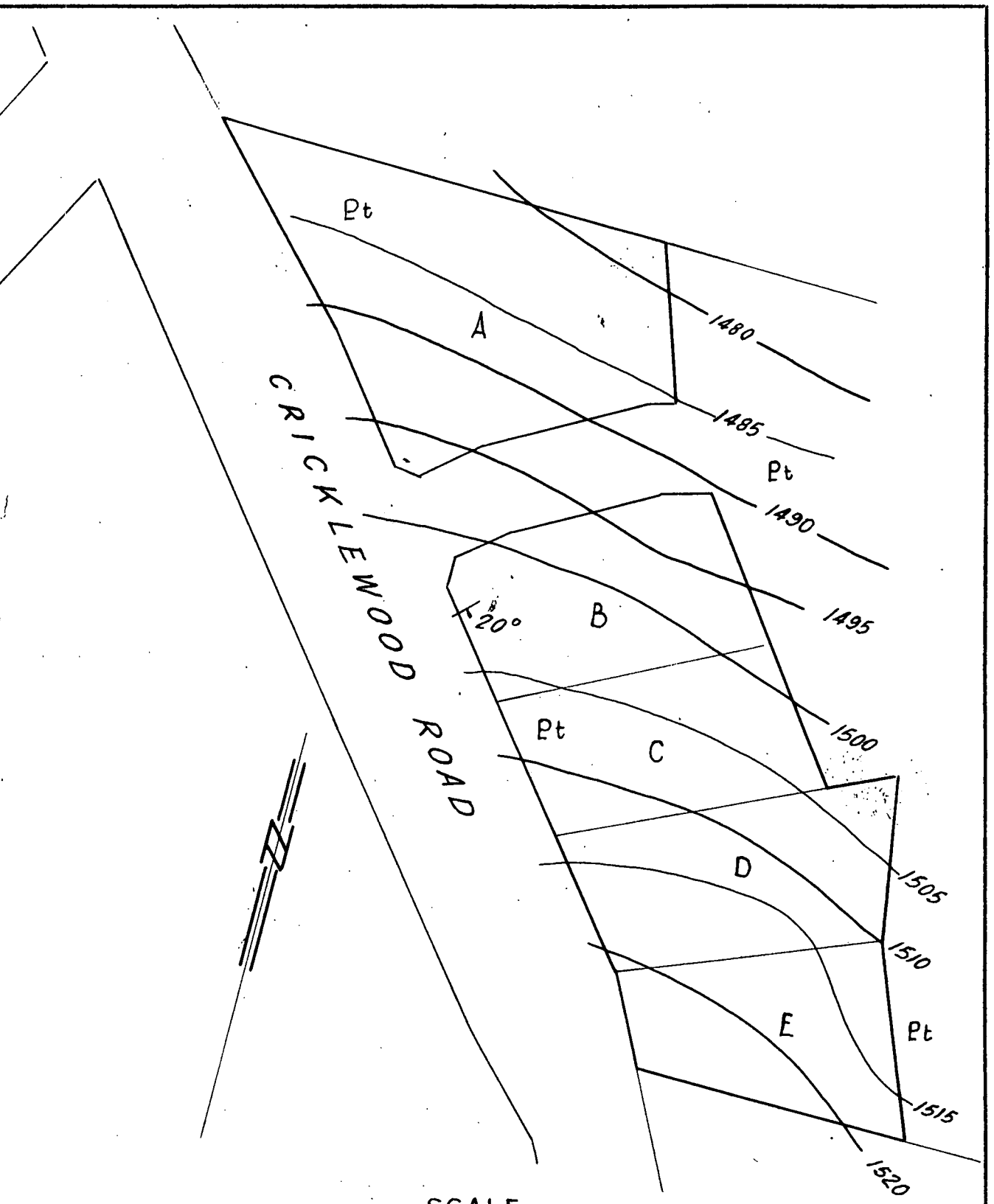
CONCLUSIONS AND RECOMMENDATIONS

It is considered that the allotments of the proposed sub-division are suitable as regards size. It is expected that effluent could be disposed of within each allotment by means of shallow pits sunk into the outer weathered zone of the sandstone. These pits should be sited in the upper part of each allotment to allow as large an area as possible for absorption of effluent.

If this and the adjoining sub-division are both to be developed then it is suggested that allotment 8 to the east be made into a reserve or boundaries altered to include in adjoining allotments.

R. G. SHEPHERD,
ASST. SENIOR GEOLOGIST,
HYDROLOGY.

RGS:EMD
5.11.64.



SCALE

Feet 80 40 0 80 160 Feet

TORRENSIAN SERIES | Pt | Aldgate Sandstone with occasional thin shales.

20° strike and dip of bedding.

1500 / 1505 — Contours - 5 ft. interval, datum - L.W.I.S.T Pt. Adel. = 100·80.'

To accompany report by R. G. Shepherd.

S.A. DEPARTMENT OF MINES

Approved	Passed	Drn.	DRAINAGE SURVEY	D.M.	Scale 80 ft. to 1 in.
		Tcd. ML.	Pt. Sec. 95, Hd. Noarlunga.	Req.	S 3951
		Ckd.	West Pt. C.T. 3187/4.		Ha 9
Director		Exd.	TOWN PLANNER - F. HOFFMANN.		Date 12.11.64

400— 6.63 1423