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UR1974-59

Stability of land in Princess Street, Burnie.

W.L. Matthews

L.G. Hodgkinson is considering buying Lots 26 and 27 Princess Street, Burnie and requested that the stability of the area be examined. He has obtained the permission of the owner, D.G. Barnett.

The blocks are just south of the intersection of Princess and Regent Streets, where the average slope of the land is 20-25°. Precambrian quartzite and slate crop out in the road cutting in front of the land and is also exposed in excavations for the foundations of the house immediately to the east. The majority of the land is underlain by red soil with grains of quartz grit and sand in varying proportions throughout. It seems likely that a bed of sandy grit occurring west of the land, extends around the slope and underlies a large proportion of the two lots.

No slips are known in the area apart from a small slump in a road cutting in Sea View Avenue just above the land. This slip was mapped during a previous survey and a retaining wall has been built to contain it. Although this land is very steep, it was not zoned as a landslip area in 1963 because of the lack of evidence of mass movements. However care should be exercised in the development of such land. Excavations should be kept to a minimum, although on such steeply sloping land, it is difficult to avoid them entirely. Well-drained retaining structures should be built in front of any excavations as soon as possible after digging.

Before any development is undertaken two or three shallow hand auger holes should be drilled to prove if the material underlying the block is mainly sandy grit. If thick basalt talus occurs, which from surface inspection is unlikely, then other measures may have to be taken to ensure a reasonable chance of stability being maintained.

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