

Test pits at the intersection of Balfour and Edmund Streets, Launceston.

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Mr. M. Bortolot of Launceston plans to build four flats on the corner of Edmund and Balfour Streets [EQ122117]. The building is to have 3 levels.

#### TOPOGRAPHY AND GEOLOGY

The block is situated in a steeply sloping zone on the west side of Windmill Hill. The average slope from Edmund Street to the rear of the block is about  $17^\circ$  and in Balfour Street, which runs along the north boundary of the land, the slope is  $13^\circ$ .

The land is underlain by Tertiary sediments made up of partly consolidated lithic sand, sandy clay and clay. Two test pits have been dug to examine the material at depth and also to expose any moist horizons that might occur. The following are the results of these test pits.

##### HOLE 1.

###### Depth (m)

0-0.3	Sandy soil.
0.3-1.8	Reddish and brown partly consolidated sand with thin streaks of clay.
1.8-2.0	Two thin seams of limonite separated by fairly soft to medium-hard sandy clay.
2.0-2.4	Grey clay, medium hard, with iron oxide hardened areas.
2.4-2.7	Grey clayey sand, medium to hard.

##### HOLE 2. (Surface about 2.5 m lower than Hole 1).

###### Depth (m)

0-0.3	Brown sandy soil.
0.3-2.4	Partly consolidated brown lithic sand, some concentration of iron.

#### DISCUSSION OF STABILITY AND RECOMMENDATIONS

The building will require excavations up to 3.2 m in depth. Although no landslips are known to have occurred in the immediate vicinity, an excavation undertaken in the past for a previously planned building on this site has suffered from some slumping. This, together with the steepness and the relative softness of the sandy clay and clay in Hole 1 suggests that some precautions should be taken. The retaining structures built on the face of the cuts should be designed so that most, if not all of the support taken away by the removal of the material in the excavations is replaced by the retaining structure. Drainage behind the structures should be such that the soil is free draining in order to prevent a build up of water.

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