

1977/43. Stability of a proposed subdivision Everton Lane area, Evandale.

W.L. Matthews

Mr and Mrs A.G. Chugg requested a detailed examination of a block of land [EQ248018] which they propose to subdivide into two lots. Previous advice on the land was based on the original regional survey of stability in the Tamar Valley, undertaken some 5 years ago, and a more recent inspection of part of one of the lots. The majority of the land is classified in Classes 4 and 5 on the Landslip Zone Map of the Tamar Valley (fig. 1), with areas around Rose Rivulet classified in Class 2. This suggests that without detailed subsurface investigations and particular attention to drainage, only the lower lying and less attractive areas would be suitable for development as house sites. After a more recent inspection, small modifications can be made to these recommendations.

POSSIBLE HOUSE SITES

An almost flat area of about 4 ha on an apparently stable ridge bordered by steep slopes occurs in the north-west section of the block and between the two tributaries of Rose Rivulet that cross the land. There seems little risk of at least 1.5 ha of the central part of this flat being affected by landslip and this could be reclassified as Class 2 on the map. Some attention should be given to drainage from any house built in this area. If a site is selected towards one side rather than the centre, the drainage should be piped towards the other side of the flat to percolate into the soil. This safe flat area is largely on Lot 1 with a small extension onto Lot 2. The surrounding areas should remain as Class 4 unless subsurface investigations indicate otherwise.

The area around Point A (Lot 2) on Figure 1 is already classified as Class 2 and a location near Point A could be used as a house site without any restrictions. This site is near Rose Rivulet on a low rise and would not be subject to flood. However it may not be a favourable position as far as access is concerned. Small scale subsurface investigations on Lot 2 may show that the areas surrounding Point B and C on Figure 1 are suitable for development. If either or both of these sites were shown to have favourable subsurface conditions for building, some special provisions should be made to disperse household drainage well away from the sites. These areas could be investigated with a back-hoe with 2-4 holes to a maximum of about 3 m deep in each area.

A flat area on the north-west corner of Lot 2 forms a local bench on the slopes of Rose Rivulet. It is almost certain that a large old landslip has formed this bench and although a house, since demolished, has previously been built on it, there is a possibility of reactivation of the slip. In addition, there are several smaller old slips on the steep slopes around the edge of this flat area. The flat may be a safe site for a house, but it should be investigated with drilling and stability analysis calculations before it could be recommended as a suitable site. Much more stringent domestic drainage procedures would still have to be applied if the investigations indicated that the site was reasonably safe to develop.

CONCLUSIONS

There is now an area defined on each lot that is classified as Class 2 on the Landslip Zone Map and which can be developed with reasonable safety. Points B and C on Lot 2 (fig. 1) are probably more attractive sites for access than Point A. If investigations indicate suitable subsurface

conditions, these may be considered as alternative house sites. Special household drainage procedures would have to be implemented if these sites were developed. Other sites on Lot 2 would be more costly to investigate.

[23 September 1977]

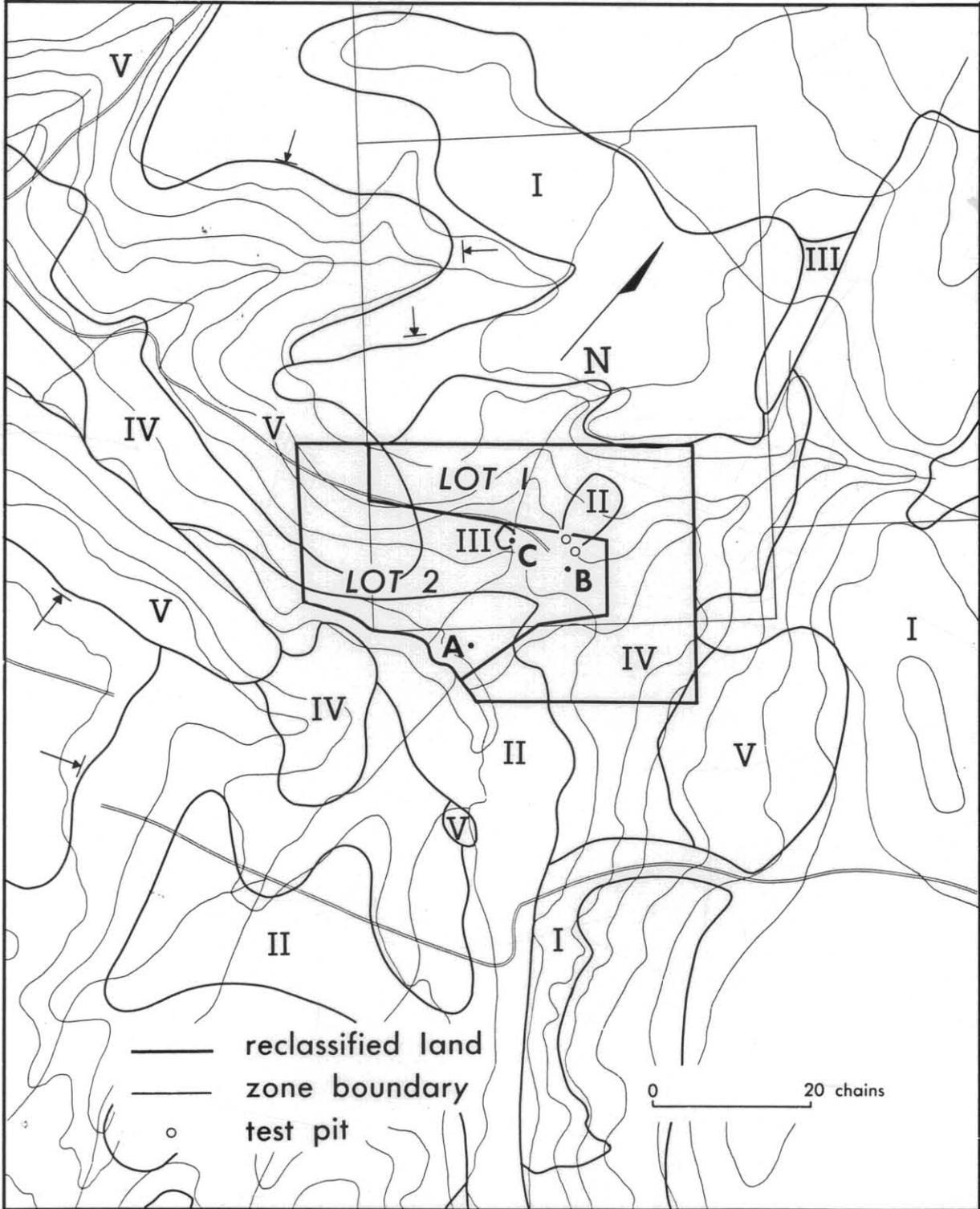


Figure 1. Location of proposed subdivision.

43-2

5 cm