

UR1975.70

Inspection of Block 2, W. Meddings-Blaskett's proposed subdivision, Legana, West Tamar.

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Block 2 [EQ031225] of this subdivision has been re-examined. It adjoins the Crown Reservation along the foreshore at the end of Ridge Road, on the eastern side of the road.

Examination of the foreshore indicates that the land is underlain by interbedded Tertiary plastic clay, sandy clay and compacted sand with some zones where seams of iron oxide are abundant. The landsurface below the block and including the northern part of it, slopes towards the River Tamar at an angle of about 20°. The remainder of the block slopes at an angle of 2-3° in the same direction. This flatter land is 25-30 m above river level. The width of flattish land on the block ranges from about 37 m on the west side of the block to about 25 m near the middle to almost nothing on the east side.

DISCUSSION OF STABILITY

Landslips are known to have occurred in the area from previous examinations. Signs of movement can be seen all along the shoreline to the north, east and west of the block. Movement has taken place near Legana jetty (west of the block) during the last few years, and during the winter of 1975 a new movement has taken place on the east side of this i.e. a little closer to the block and about 120 m from it. Signs of old movements can be seen below the block and extend onto the northern part of it. It is unlikely that there have been active movements for at least 2-3 years. Near the eastern edge of the block and extending onto it (near the hut), a large old rotational slip has taken place, the heel of which extends for about 75 m. The age of this movement is unknown but the slip can be seen on 1947 aerial photographs but it could have still been active after this date. It has areas of internal drainage along the heel zone which hold ponds of water. To the east of and coalescing with this large old slip are slips that have occurred in the winter of 1975, the heels of which extend a little into the flatter ground. These slips have occurred on steeper ground than that below the block. These recently active slips extend to and coalesce with a large slump that is said by local residents to be underlain by a coal mine adit. From examination of aerial photographs, the slip took place between 1956 and 1968.

CONCLUSIONS

In view of the abundance of slips in the area, both old and recently active, it is apparent that considerable care should be exercised if the block is to be developed. The occurrence of slips during the winter of 1975 has further strengthened this view. Observations in other parts of the River Tamar area have indicated that the movement of the heels of slips backwards into the flatter lying land is taking place at a faster rate than was expected. As the river currents and tides remove material from the toe zones of slips, this backward movement can be expected to continue.

If the block is developed, then any development should take place within the quadrilateral A B C D (fig. 1). Any house or building should be single storey and preferably of light weight construction.

The trees along the north side of the block and along the foreshore should be left standing as an aid to stability. Sullage from the house should not be allowed to permeate down the bank in front of the block and water from the roof should not be allowed to concentrate in any one area and flow down the steep slope.

Drainage from the road spilling over the steep bank would have an effect on the stability and if this were piped to the river, the risk of further instability would be reduced.

[19 November 1975]

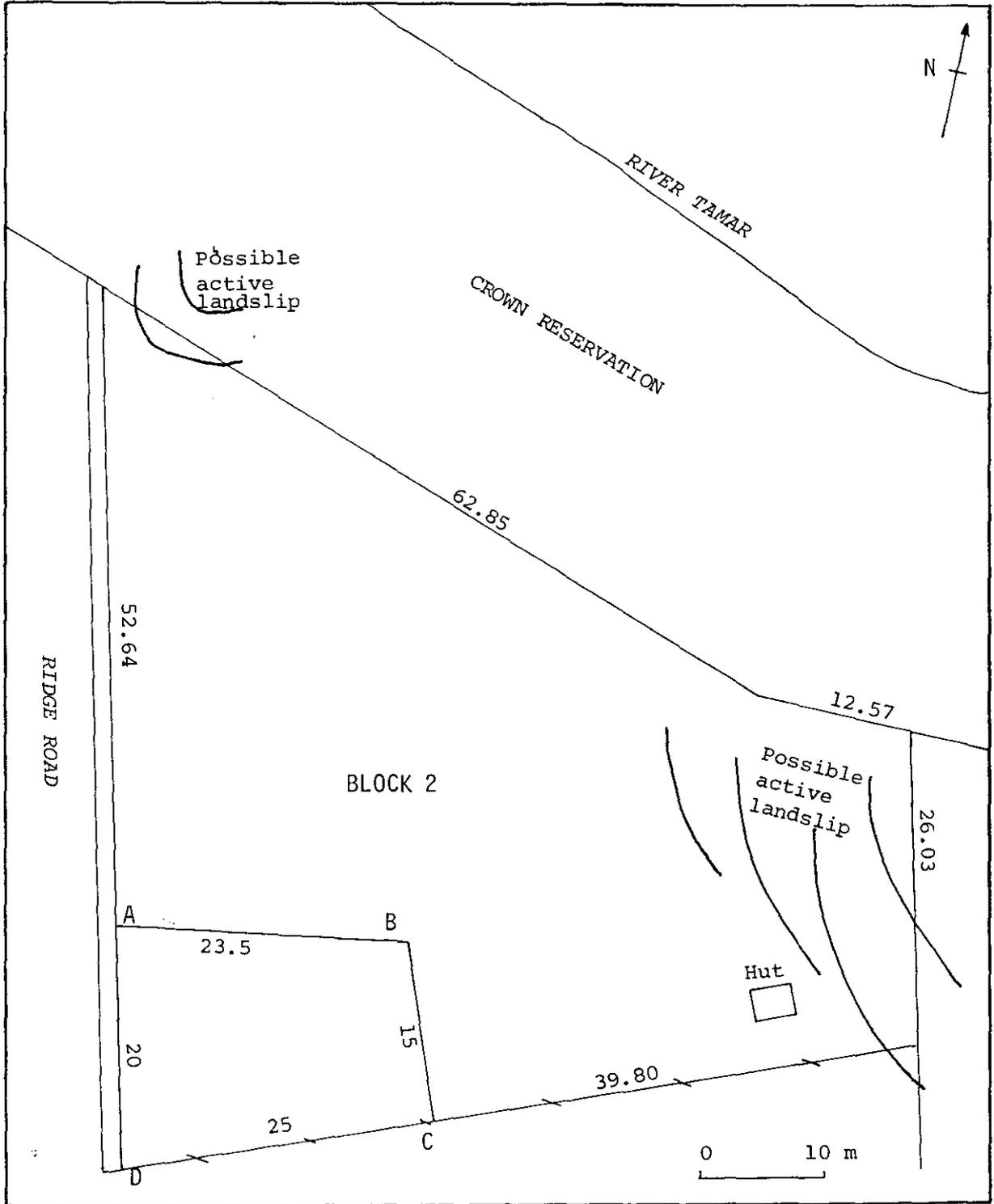


Figure 1

5 cm