

FURTHER REPORT ON PARKLANDS LANDSLIP

The Parklands Landslip was re-examined on 21st November, 1963.

Since my last inspection the heel of the slip has subsided some 5 to 10 feet and occasional masses of material have fallen onto the Bass Highway. Remedial measures so far carried out consist of a cut-off drain at the rear of the Parklands subdivision together with improvements and reconstruction of access and drainage along Buttons Street. Whilst these measures will undoubtedly effect a long term improvement, they will not contribute much to the stability of the existing landslide.

The material in the landslide is a mixture of plastic clay, weathered rock and boulders. The clays have dried out on the surface of the slip and are cut by a network of deep dessication cracks. In addition to this a number of subsidiary slip planes have developed within the mass. Thus this unstable wedge of material perched above the Bass Highway is in a condition to conduct any rain or surface water into the mass itself.

There is no doubt whatsoever that this slip will continue to move until the whole of the wedge has subsided onto the highway. The rate at which the movement will take place depends largely on the weather conditions, but whatever the case, the movement is inevitable. It should be noted that under appropriate conditions the whole mass could well move downwards and outwards quite rapidly and in a single movement. It therefore, represents a distinct hazard to traffic along the highway. Also if no permanent remedial measures are taken the probability of an extension of the slip to adjacent areas remains high. At this stage the only effective remedy appears to be to remove the whole of the slip materials, provide drainage behind the slip plane and to replace the slip material with a free draining rock fill supported by a block crib wall. Until this is done it will be impracticable to provide access to the house immediately behind the slip and any money spent on such a project would be wasted.

The fact must be faced that if the slip material is not removed manually then it will continue to subside and will have to be removed from the highway. In the meantime the presence of this unstable mass constitutes a real hazard for traffic using the highway. The longer effective remedial measures are delayed the more chance there is that the area of instability will spread.

GENERAL

At several points along the foot path below Buttons Street cracks have appeared parallel to the road cutting. The rock facing to this cutting also shows signs of incipient collapse in a few places. Whilst it may be argued that the cracks are due to dessication, their orientation taken in conjunction with the signs of failure along the embankment indicate a more deep seated cause. The instability of this area has been discussed previously and recommendations made for remedial treatment. The indications are that the present Parklands slip is only the first of a series of small failures which are pending along this embankment. It is therefore recommended that the whole of this embankment should be studied carefully, and the existing rock facing be removed to facilitate this.

December, 1963


(I.B. Jennings)
SENIOR GEOLOGIST