

1.0 Site Visit

The Annual Inspection site visits for these sites were conducted on May 28, 2001. At the time of the visit, the weather was clear and calm.

The sites are all located in Highway 762. Sites A and B are 12.4 km and 29.2 km south of the intersection with Highway 22. Site C is 550 m north of the intersection with Highway 592.

2.0 Significant Observations

The following observations, considered to be relevant to the stability of the road embankments at each of the sites were made:

Site A

- Patched areas and distress to the highway (tension cracks in the shoulder were noted. Refer to Photos 1 and 2.
- Visual inspections downslope of the patched area did not indicate any other signs of movement.
- Repairs reported to have been made in 1999 appear to continue to be effective.

Site B

- Patched areas and distress to the highway (tension cracks) in the shoulder were noted. Refer to Photos 1 and 2.
- Visual inspections downslope of the patched area did not indicate any other signs of movement.
- Previous repairs (unknown date) appear to continue to be effective.

Site C

- A significant dip is present at and adjacent to a small creek culvert. The dip is most prominent in the southbound (east) lane. Ongoing maintenance (patching) of this area has been reported.
- The culvert appears to be either blocked, separated or partly collapsed. Settlement of the fill above the culvert does not account for all of the observed dip and reported maintenance requirements.
- There is little change in grade on either side of the road fill, and slopes on both sides are gentle. This suggests that if there is a slope failure, that it is confined to the road fill.
- There was ponded water on the west side of the road embankment, with no apparent discharge to the road ditch. This may indicate that seepage is occurring below or through the road fill. There was no evidence of a spring or other outlet on the east side of the road fill.

3.0 Changes from Previous Visit

No significant changes at any of the sites from the previous assessment in 2000 were noted. Crack sealing adjacent to patched area had been conducted.

4.0 Discussion

Site A and B are similar in that they appear to have been circular type failures. Both of these appear to have been repaired by replacement of the road fill with more competent material. To date the repairs seem to have been generally effective.

The cause of the dip at Site C is less clear. There does not appear to be any overall stability issues, however, the creek valleys in the area are known to contain glacial lacustrine clays. It is possible, that there is a relatively weak foundation, which is resulting localized failure of the road fill. It is also possible that seepage through or below the fill causing a loss of ground below or in the fill.

5.0 Assessment

Currently, each of the sites appears to be relatively inactive, with periodic maintenance requirements. Sites A and B appear to have been repaired by partial replacement to the road fill and are currently inactive. Reactivation of either of these sites could result in a loss of at least one lane of traffic. On this basis, the Risk Level at Sites A and B are taken 20, based on a PF=5 times CF=4.

While the distress at Site C also appears to be inactive, the cause is uncertain, and not mitigative measures, other than patching, have been undertaken. On this basis, a slightly higher Probability Factor of 6 is recommended. A Consequence Factor of 4 is also recommended for this site. The Risk Level is therefore taken as 24.

6.0 Recommendations

The Annual Assessment program already in place should be continued.

The surface conditions of the road at these locations should be carefully monitored by maintenance personnel. This would be in conjunction with slope indicator monitoring to provide as early detection of potential problems below the road as possible.

Further assessment of the possibly damaged culvert at Site C should be undertaken.