

S10 Highway 762 Miscellaneous Sites

The three identified sites along Highway 762 were visited on 29 May 2002. Photographs from this site visit are included in Appendix S10, along with a detailed discussion of the visits. This discussion has also been submitted in separate unbound sheets for inclusion in Appendix B of the Highway 762 Miscellaneous sites binder. The following is a brief summary of the assessments.

Site A and B are similar to each other 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. No significant changes in the slope and road surface conditions were noted at either site during the inspection.

The cause of the cracking in the patch 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 glaciolacustrine clays. It is possible that there is a relatively weak foundation, which is resulting in 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. The ponded water in the west ditch is a concern, as it may represent seepage below/through the road fill.

The Risk Level at Sites A and B are taken as 16 (reduced from 20 in the 2001 assessment) and the Risk Level at Site C is taken as 20 (reduced from 24 in the 2001 assessment). AMEC recommends that the annual assessments at these sites be continued.

1.0 Site Visit

The Annual Inspection site visits for these sites were conducted on 29 May 2002. At the time of the visits, the weather was clear with a light breeze.

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, respectively. Site C is 550 m north of the intersection with Highway 549.

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 tension cracks in the west shoulder were noted (Photos 1 to 4).
- No significant changes since the previous inspection.
- Visual inspections downslope of the patched area did not indicate any other signs of movement.
- An old culvert with a blocked inlet (east side of road) was noted below the south patch on the road.
- Repairs reported to have been made in 1999 appear to continue to be effective.

Site B

- Patched areas and tension cracks in the west shoulder were noted (Photos 5 to 8).
- No significant changes since the previous inspection.
- 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

- The settlement area on the road has been repaved since the last inspection (Photo 9). The repaving was presumably done in October 2001 when the nearby Fisher Creek site was also repaved.
- A new crack was noted in the repaved area (Photo 10). This crack was located in the southbound lane, parallel to the direction of travel.
- There was ponded water in the ditch to the west of the road. 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

Aside from the repaving at Site C, no significant changes at any of the sites since the previous inspection in 2001 were noted.

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 cracking in the patch 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 glaciolacustrine 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 is causing a loss of ground below or in the fill. The ponded water in the west ditch is a concern, as it may represent seepage below/through the road fill.

5.0 Assessment

Currently, Sites A and B appear to be relatively inactive with periodic maintenance requirements. Reactivation of either of these sites could result in a loss of at least one lane of traffic. Given the relative inactivity, the Probability Factor at Sites A and B should be reduced from 5 to 4. The Consequence Factor should remain at 4. On this basis, the Risk Level is equal to 16 for each site, which is a reduction from 20 in the 2001 assessment.

While the cracking at Site C appears to be occurring at a very slow rate, the cause is uncertain and the movement pattern undetermined. Therefore, the Probability Factor at Site C should be reduced from 6 to 5. The Consequence Factor should remain at 4. On this basis, the Risk Level is equal to 20 for Site C, which is a reduction from 24 in the 2001 assessment.

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. Any significant changes at these sites should be reported.

The west ditch at Site C should be cleaned out/regraded as necessary to drain the ponded water. Depending on the existing gradient in the ditch, the installation of a French drain could also be considered.