

B.C. MINISTRY OF TRANSPORTATION
SA10 – LOCAL AREA SPECIFICATION #4

Horizontal Drain Maintenance

1. OBJECTIVE

To maintain continued effectiveness of the drainage system for slide stabilization.

This service area has a minimum of 18 horizontal drain sites with a minimum of 192 drains as long as 100 metres in length. The number of drains range from 0 to 75 per site. Sites with 0 drains do not require maintenance. All site locations are identified by odometer to the nearest landmark with individual drain detail in the attached Appendix. Appendix 1 to this Local Area Specification lists current slide sites with horizontal drains; additional sites/drains may be added during the term of the contract, but the number is expected to be minimal.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

Cleaning methods need to satisfy three different aspects of drain operation to be able to restore an adequate degree of drain efficiency. The drain casing, the slots (PVC) or perforations (metal) need to be cleaned of obstructions and the material caked on the outside of the drain around the slot inlets needs to be fractured.

Access to clean the drain may become overgrown and difficult to locate if maintenance is not performed on a regular basis.

Information regarding potential cleaning methodology (Horizontal Drains Maintenance, Rimer & Smallwood, 1993) and some site plans are available at the West Kootenay District office.

All services for this Local Area Specification are Routine.

2.2 Quantified Maintenance Services

Not applicable to this Local Area Specification.

3 DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

The Contractor must:

- a) ensure access to all horizontal drain sites for cleaning purposes;
- b) clear vegetation cover to access drain outlets and collector system cleanouts;
- c) flush the drain casings of sediment and clean the slots and perforations of obstructions and caking; and
- d) inspect all sites and drains on an annual basis to ensure efficiency and advise Province of failures or safety concerns;
- e) collect and record flow rates from each drain before and after each flush/cleaning and record the length of insertion by the cleaning tools;
- f) repair and/or reconstruct collector systems at installation sites where drain discharge is saturating the slope or surrounding area

3.1.1 Performance Time Frames

The Contractor must:

- a) not allow vegetation to exceed 20 cm
- b) flush and clean drains within 30 days of every second inspection;
- c) inspect all drains once per year; and
- d) repair and/or reconstruct collector systems within 30 days from the time the deficiency was detected by or notified to the Contractor.

3.2 Quantified Maintenance Services

Not applicable to this Local Area Specification.

3.3 Materials

Refer to Section B of the Introduction to the Maintenance Specifications.

4. WARRANTY

Not applicable to this Local Area Specification.

