

## BC MINISTRY OF TRANSPORTATION

### Electrical Maintenance Specification E-140 (Version 6 – May/05)

#### ACTUATED RAILWAY WARNING SIGN MAINTENANCE

##### 1. OBJECTIVE

- To ensure that Actuated Railway Warning Signs are operational and function in accordance with their design and Ministry standards.

##### 2. GENERAL PERFORMANCE SPECIFICATIONS

###### 2.1 Routine Maintenance Services

- All services for the Electrical Maintenance Specification are routine.

###### 2.2 Additional Services

- Not applicable to the Electrical Maintenance Specification.

##### 3. DETAILED PERFORMANCE SPECIFICATIONS

###### 3.1 Routine Maintenance Services

The Contractor must:

- a) Repair or replace Actuated Railway Warning Signs and their components ;
- b) perform preventative maintenance;
- c) replace non-LED signal head lamps;
- d) replace LED signal head light sources;
- g) meet on site with railway staff to confirm operation;
- h) notify the PHCC of any malfunctioning Actuated Railway Warning Signs causing a major traffic disruption and inform the PHCC when repaired;
- i) remove or cover graffiti in accordance with the *Highway Maintenance Specification – Litter collection and Graffiti Removal*; and

- j) document all activities related to electrical maintenance of Actuated Railway Warning Signs including but not limited to field inspections, patrols, testing, complaints received / responses made, and all changes made to the equipment and operations.

### **3.1.1 Performance Time Frames**

The following establishes the maximum time, from the time the deficiency was detected or reported to the Contractor, within which the Contractor must Respond and initiate repairs:

- a) Actuated Railway Warning Signs and their components that constitute or have the potential to constitute an immediate safety hazard to the Highway User or cause a traffic disruption, within 1 hour;
- b) Actuated Railway Warning Signs and their components that do not operate as per their original design but are not immediate safety hazards, on the next regularly scheduled work day;
- c) Actuated Railway Warning Signs and/or their components that operate as per the original design intent, do not create a safety hazard, and are structurally sound but have identified deficiencies, within 3 months;

The Contractor must:

- a) perform preventative maintenance as required;
- b) replace all non-LED signal head lamps once every 12 months;
- c) replace LED signal head light sources as required;
- g) meet on site with railway staff to confirm operation once every 12 months;

- h) notify the PHCC of any malfunctioning Actuated Railway Warning Sign causing a traffic disruption within 5 minutes from the time the malfunction was detected by or reported to the Contractor and inform the PHCC when repaired;
- i) remove or cover graffiti in accordance with the Performance Time Frames listed in the *Highway Maintenance Specification – Litter Collection and Graffiti Removal*; and
- j) document all activities related to electrical maintenance of Actuated Railway Warning Signs immediately.

**Note:**

The Contractor will clean, repair and/or replace Actuated Railway Warning Signs in accordance with the Maintenance Specification for “Sign System Maintenance” and its attached Appendix A.

**3.2 Additional Services**

Not applicable to the Electrical Maintenance Specification.

**3.3 Materials**

Refer to the Introduction.