

SCHEDULE 1

SPECIFICATIONS

Introduction:

1. DEFINITIONS

1.1 The following terms where used in the Specifications have the following meanings:

"HID" means High Intensity Discharge.

"Patrol" means the visual inspection of the equipment to verify its operation and structural integrity.

"Preventative Maintenance" means those maintenance activities done to minimize the possibility of problems occurring. Preventative Maintenance includes but is not limited to:

- ensuring visibility;
- tightening mounting hardware and /or replace if damaged;
- checking grounding;
- lubricating all hinges, locks, latches and bolts;
- washing lenses, reflectors, housings, etc and /or replacing if damaged;
- cleaning signs;
- checking Inventory for proper alignment and/or visibility;
- repairing leaks;
- repainting if rusted;
- checking all splices;
- documenting all maintenance activity; and
- recording all deficiencies not immediately repaired.

"Respond" and "Response" means to assess, plan and where required attend the site to initiate repairs, or commence travel by reasonable means from the nearest Base Location to the site, and proceed diligently with the work until completed. The Response time or times specified in this Schedule establishes the maximum time period for the Contractor to commence the response from the time the deficiency was detected or reported to the Contractor.

"RTMC" means the Regional Transportation Management Centre, Coquitlam, B.C., 1-866-707-7862, or such other telephone number that the Ministry may advise the Contractor in writing from time to time.

"Safety Hazard" means a reduction in the level of safety to the public compared to the level of safety provided by the item of Inventory concerned if functioning properly.

“Traffic Disruption” means a change from the typical flow of traffic at the location of the item of Inventory concerned.

And any other word or capitalized word or phrase will have the meaning ascribed in Section 1.1 of this Agreement.

2. REFERENCES AND DESIGN STANDARDS

2.1 The following documents, as may be amended from time to time by the Ministry, contain the requirements for the carrying out of any of the Routine Maintenance Services or Additional Services:

- Ministry Traffic and Electrical Engineering Manual
http://www.th.gov.bc.ca/publications/eng_publications/electrical/electrical_and_traffic_eng/2004-Electrical_Signing_Design_Manual/tableofcontents.htm
- Ministry Electrical and Signing Materials Standards
http://www.th.gov.bc.ca/publications/eng_publications/electrical/electrical_and_traffic_eng/2003_material_standards/2003_material_standards.htm
- Traffic and Electrical Technical Bulletins
http://www.th.gov.bc.ca/publications/eng_publications/TE_Bulletins/TE_bulletins.htm
- Traffic Controller Design Manual
http://www.th.gov.bc.ca/publications/eng_publications/electrical/TrafficControllerDesignManual.pdf
- Traffic Controller Assembly Manual
http://www.th.gov.bc.ca/publications/eng_publications/electrical/TrafficControllerAssemblyManual.pdf
- LMD 8000 Programming Guide
http://www.th.gov.bc.ca/publications/eng_publications/electrical/LMD8000Manual.pdf
- Naztec Traffic Controller Assembly Manual
http://www.th.gov.bc.ca/publications/eng_publications/electrical/MoTI_P6_TS2_Type_1_Drawing_Guide_REV_2.pdf
- Naztec Programming Guide
http://www.th.gov.bc.ca/publications/eng_publications/electrical/MoTH_Naztec_NTCIP_Manual_Programming_Guide.pdf
- Count Station Installation and Maintenance Guidelines
http://www.th.gov.bc.ca/publications/eng_publications/electrical/CountStationManualv5.pdf

- Guide for Inspecting and Testing Preemption of Interconnected Traffic Control Signals and Railway Crossing Warning Systems
<http://www.tc.gc.ca/media/documents/railsafety/TP13755.pdf>
- Highways Maintenance Contracts – Maintenance Specifications
http://www.th.gov.bc.ca/bchighways/contracts/maintenance/Schedule_21_Maintenance_Specifications.pdf
- Local Area Specifications contained within the Highway Maintenance Contracts as they pertain to restrictions on hours of work within the electrical service area.
http://www.th.gov.bc.ca/bchighways/contracts/maintenance/standards_and_specs_local_area.htm
- Manual of Standard Traffic Signs and Pavement Markings
http://www.th.gov.bc.ca/publications/eng_publications/electrical/most_pm.pdf
- Pedestrian Crossing Control Manual for British Columbia
http://www.th.gov.bc.ca/publications/eng_publications/Ped_X_Manual/PedX_manual.htm
- Specifications for Standard Highway Sign Materials, Fabrication and Supply
http://www.th.gov.bc.ca/publications/eng_publications/signs/2010_Catalogue/Specifications/Sign_Fabrication_Specs.pdf
- Traffic Management Guidelines
http://www.th.gov.bc.ca/publications/eng_publications/geomt/traffic_mgmt_guidelines.htm
- Catalogue of Standard Traffic Signs
http://www.th.gov.bc.ca/publications/eng_publications/geomt/geometsigns.htm
- Standard Specifications for Highway Construction (Current Edition)
http://www.th.gov.bc.ca/Publications/const_maint/contract_serv/standardspecs.htm
- Recognized Products List
http://www.th.gov.bc.ca/publications/eng_publications/geotech/Recognized_Products_Book.pdf
- Maintenance of Perm Count Stations Strategy and Outline
http://www.th.gov.bc.ca/publications/eng_publications/geomt/Perm%20Counts/Maint_PermCount_Stat_Training_Plan.pdf

2.2 All Inventory must be maintained to at least the requirements set out in any manufacturer's specifications or operations manuals. In the case of any conflict between such manufacturer's specifications or operating manuals and the present Specifications, the present Specifications must apply.

3. MATERIALS

- 3.1 Contractor supplied materials must conform with the Ministry Electrical and Signing Materials Standards and the Recognized Products List.
- 3.2 In the event the Ministry may determine, in its sole discretion, that the following items of Inventory must be replaced by the Contractor, the Ministry will reimburse the Contractor for the cost of the device or provide that item to the Contractor at the Ministry's cost:
- (a) a 69KV transformer or its component parts;
 - (b) a web camera;
 - (c) solar equipment,
 - (d) a speed reader board;
 - (e) an electronic messaging sign;
 - (f) LED chevrons;
 - (g) overhead sign; and
 - (h) such other device selected by the Ministry needs replacement pursuant to this Article.
- 3.3 All removed and/or replaced components of Inventory including but not limited to steel, wire, concrete, lamps, batteries and plastic is to be disposed of in a environmentally appropriate manner and, if possible materials will be recycled.

Electrical Maintenance Specifications Listing

- E-110 TRAFFIC AND PEDESTRIAN SIGNAL MAINTENANCE
- E-120 ILLUMINATED PEDESTRIAN CROSSING SIGNS AND SPECIAL CROSSWALK SIGNS MAINTENANCE
- E-130 FLASHING BEACON MAINTENANCE
- E-140 ACTUATED RAILWAY WARNING SIGN MAINTENANCE
- E-160 ONE WAY BRIDGE SIGNAL MAINTENANCE
- E-180 FIRE SIGNAL MAINTENANCE
- E-190 UNINTERRUPTIBLE POWER SUPPLY (UPS) MAINTENANCE
- E-210 POST MOUNTED FLASHER MAINTENANCE
- E-220 WARNING SIGNS WITH FLASHERS MAINTENANCE
- E-230 AVIATION, NAVIGATIONAL AND PIER LIGHTING MAINTENANCE
- E-310 STREET, ROADWAY, AREA AND SIGN LIGHTING MAINTENANCE
- E-320 HIGHMAST LIGHTING MAINTENANCE
- E-330 TUNNEL AND SNOWSHED LIGHTING MAINTENANCE
- E-340 PEDESTRIAN AND CYCLIST TUNNEL LIGHTING MAINTENANCE
- E-350 ARCHITECTURAL AND ORNAMENTAL LIGHTING MAINTENANCE
- E-410 SHORT DURATION TRAFFIC COUNTER STATION MAINTENANCE
- E-420 PERMANENT TRAFFIC COUNTER STATION MAINTENANCE
- E-510 OPEN / CLOSED SIGN MAINTENANCE
- E-520 ELECTRONIC MESSAGE SIGN MAINTENANCE
- E-530 OVERHEIGHT DETECTION SYSTEM MAINTENANCE
- E-610 WEB CAMERA MAINTENANCE
- E-700 HIGHWAY ELECTRICAL INFRASTRUCTURE INCIDENT AND VANDALISM RESPONSE
- E-710 TRAFFIC CONTROLLER EQUIPMENT DISPOSAL
- E-800 ELECTRICAL PATROL
- E-900 WEIGH SCALES