

## Table of Contents

1	BULKLEY-NASS	1
1.01	Definitions	1
1.02	Bridge Traveller Maintenance – Hagwilget Bridge	2
1.03	Highway Crossing Infrastructure	3
1.04	Invasive Plants Management	5
1.05	Maintenance Exceptions – Compact	7
1.06	Salt Containment Infrastructure Maintenance	8
1.07	Winter Abrasives	11

## **1 BULKLEY-NASS**

### **1.01 Definitions**

In these Local Area Specifications, capitalized terms will have the corresponding meanings as set out in Article 1 of this Agreement and Section 1 of this Schedule 1 (“Specifications”), and as set forth below:

**“Invasive Plants”** means any invasive alien plant species that has the potential to pose undesirable or detrimental impacts on humans, animals or ecosystems.

**“Salt Containment Infrastructure”** means a storage facility, including all of its components that is used for the storage and loading/unloading of salt for winter maintenance operations including, but not limited to the salt shed, fabric/steel roofing, pit floor, evapotranspiration liner, containment pad, and skirt.

## **1.02 Bridge Traveller Maintenance – Hagwilget Bridge**

### **1.02.1 Outcome**

To provide a safe, efficient and smooth operation of the Bridge Travellers at the Hagwilget Bridge.

### **1.02.2 Routine Maintenance Services**

**PM1.02.2-1** Repair or replace damaged or deteriorated Bridge Traveller components within 30 days.

**PM1.02.2-2** Inspect, test and certify Bridge Travellers annually.

**PM1.02.2-3** Test annually, all Bridge Travellers, to confirm the units function as designed.

### **1.02.3 Materials and/or Procedures**

- a) Replace Bridge Travellers with components of at least equal quality to the existing components and as approved by the Province.

### **1.02.4 Routine Maintenance Services Cap**

\$35,000 - for each occurrence, the cost to repair or replace a Bridge Traveller.

### **1.03 Highway Crossing Infrastructure**

#### **1.03.1 Outcome**

To provide safe passage of pedestrians and animals underneath or beside a Highway.

#### **1.03.2 Routine Maintenance Services**

- PM1.03.2-1** Respond immediately to restrict all access to Highway Crossing Infrastructure, as directed by the Province.
- PM1.03.2-2** Repair or replace immediately, as directed by the Province, any damaged or deteriorated Highway Crossing Infrastructure that has been structurally compromised, as determined by the Province.
- PM1.03.2-3** Repair or replace within 3 months, any damaged or deteriorated Highway Crossing Infrastructure that has not been structurally compromised, as determined by the Province.
- PM1.03.2-4** Remove Debris immediately from the surfaces of floors, pedestrian paths or stairways.
- PM1.03.2-5** Remove Accumulations, surface contaminants and chemicals by June 30 of each calendar year from all surfaces.
- PM1.03.2-6** Remove Debris within 1 month that impedes the passage of animals in animal accessed Highway Crossing Infrastructure.

#### **1.03.3 Quantified Maintenance Services**

- PM1.03.3-1** Repair within 24 hours damaged or deteriorated surfaces on underpass floors, pedestrian paths or stairways.
- PM1.03.3-2** Repair within 6 months other damaged or deteriorated surfaces.

##### **Specific Requirements:**

- a) Maintain Highway Crossing Infrastructure within Rest Areas in accordance with the response of the adjacent Highway Classification.

#### **1.03.4 Materials and/or Procedures**

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional material and/or procedures requirements are as follows:

- a) Use materials in accordance with the same type and quality on the existing Highway Crossing Structure.

**1.03.5 Routine Maintenance Services Cap**

\$50,000 – for each occurrence, the cost to repair or replace Highway Crossing Infrastructure.

**1.03.6 Warranty**

Refer to Section 3 of this Schedule 1 (“Specifications”).

## 1.04 Invasive Plants Management

### 1.04.1 Outcome

To minimize the introduction and spread of Invasive Plants on Highways and Gravel Pits.

### 1.04.2 Routine Maintenance Services

**PM1.04.2-1** Meet annually, with the agency conducting Invasive Plant management for the Province, during development of the Quantified Maintenance Services to coordinate planned activities.

**PM1.04.2-2** Inspect all Gravel Pits and material sources annually to ensure they are free of Invasive Plants.

**PM1.04.2-3** Report Invasive Plant conditions to the agency conducting Invasive Plant management for the Province, as follows:

Performance Criteria	Response
a) Prior to the disturbance of knotweed species that restricts Sight Distance or creates a condition that is unsafe or has the potential to become unsafe	immediately
b) Any Invasive Plant infestations on Highways and Gravel Pits	2 d

**Notes:**

- 1) Only the exposed, active areas of the Gravel Pits are to be considered.

### 1.04.3 Quantified Maintenance Services

**PM1.04.3-1** Seed specific areas of exposed soils exceeding 1 metre up the Shoulder sideslope and the backslope due to ditch maintenance.

**Notes:**

- 1) The Standard Specifications for Highway Construction describes the revegetation requirements including, but not limited to blending, seed analysis and application timing.

### 1.04.4 Materials and/or Procedures

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional materials and/or procedures requirements are as follows:

- a) Comply with the Best Practices for Managing Invasive Plants on Roadsides;

- b) Incorporate Invasive Plant management when planning and performing Quantified Maintenance Services;
- c) Seed side-cast ditch materials;
- d) Seek approval from the Province if disturbance of knotweed species is required;
- e) The Contractor may submit a plan for approval by the Province for the use of herbicides, as a control measure for knotweed or other Invasive Plants;
- f) Herbicides are to be applied by a certified pesticide applicator;
- g) Do not use gravel materials contaminated with Invasive Plants, unless a rectification process is submitted and approved by the Province; and
- h) Report Invasive Plants to the agency conducting Invasive Plant management for the Province online or using the Province's smartphone application or the provincial toll-free service.

#### **1.04.5 Warranty**

Refer to Section 3 of this Schedule 1 ("Specifications").

**1.05 Maintenance Exceptions – Compact****1.05.1 Outcome**

To proactively monitor, anticipate, manage and respond to Winter Accumulations and Compact to facilitate the safe and orderly flow of traffic.

**1.05.2 Routine Maintenance Services**

**PM1.05.2-1** Maintain the section of #37 Cassiar Highway from kilometre point 156.505 to 220.709 in accordance with General Specification 3.01 of this Schedule 1 (“Specifications”), with the exception of PM3.01.2-3.



## 1.06 Salt Containment Infrastructure Maintenance

### 1.06.1 Outcome

To provide for the safe handling and storage of salt and Winter Abrasives on provincial land and monitor, maintain, repair and replace provincially owned Salt Containment Infrastructure.

### 1.06.2 Routine Maintenance Services

- PM1.06.2-1** Off-load salt onto an evapotranspiration liner or containment pad, if available and/or store immediately within the salt shed.
- PM1.06.2-2** Retrieve and return to the salt shed immediately, any salt spillage over the top of skirt that lines the inside of the salt shed.
- PM1.06.2-3** Remove immediately, any salt or salt contaminated material on the pit floor to a depth of 40 centimetres for use with Winter Abrasives when processing.
- PM1.06.2-4** Notify the Province immediately of any damage to the containment pond, including but not limited to the liner, berm or fencing.
- PM1.06.2-5** Temporarily repair damaged or deteriorated salt shed components immediately, that permits water infiltration.
- PM1.06.2-6** Permanently repair within 8 weeks, any temporarily repaired steel/fabric salt shed components that permits water infiltration.
- PM1.06.2-7** Permanently repair within 2 weeks, any temporarily repaired wooden salt shed components that permits water infiltration.
- PM1.06.2-8** Inspect and document the condition of Salt Containment Infrastructure as follows:

Performance Criteria	Response
a) Evapotranspiration water/brine levels	daily or more often when required
b) Water in the containment pond to prevent over-flowing	daily or more often when required
c) Steel/fabric salt sheds including, but not limited to, the steel structural components including base plates, wire cross-bracing, fabric roof, fabric lashing, winches and vents, lock-blocks and protective skirt	bi-annually in the spring and fall or in accordance with the manufacturer's specifications and recommendations, whichever is more frequent
d) Wooden salt shed including but not limited to structural condition and weatherproof exterior	annually
e) Salt shed apron and containment pad surfaces	annually
f) Evapotranspiration liner surface absorption	daily or more often when required

**PM1.06.2-9** Maintain the superstructure of steel/fabric salt sheds as follows:

Performance Criteria	Response
a) Remove grime and encrusted salt off the salt shed's steel interior	annually
b) Lubricate winches	annually
c) Re-tension-web and fabric roof lashing	annually
d) Re-tighten fastening bolts	annually
e) Remove surface rust	annually

**PM1.06.2-10** Repair or replace Salt Containment Infrastructure as follows:

Performance Criteria	Response
a) Damaged or deteriorated containment pond components, including but not limited to the liner, berm or fencing	immediately
b) Loss of absorption for a compact surface where water is ponding on the evapotranspiration liner	immediately
c) Saturation or overflow of evapotranspiration water/brine	when required
d) Damaged or deteriorated wooden salt shed components	within 2 weeks of the bi-annual inspection or as noted in PM1.06.2-8
e) Damaged or deteriorated steel/fabric salt shed components	within 8 weeks of the bi-annual inspection or as noted in PM 1.06.2-8 if salt and/or Winter Abrasive with salt is present or prior to when the salt and/or Winter Abrasive with salt is scheduled to be stored
f) Cracked, chipped edges, pot holes, settling/ponding, or base failure of surfaces	General Specifications 1.01, 1.06 and 1.10 in Schedule 1 ("Specifications") for a Class 4 Highway

**PM1.06.2-11** Replace annually, the top 10 centimetres of salt contaminated material on the evapotranspiration surface with free draining material and use the removed salt contaminated material for Winter Abrasives processing.**Notes:**

- 1) The Province inspection H-form is to be used for inspections of steel/fabric salt sheds;
- 2) PM1.06.2-10 (f) includes possible Quantified Maintenance Services; and
- 3) Salt shed locations are provided in Appendix A of Schedule 13 ("Gravel Licence").

**1.06.3 Materials and/or Procedures**

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional materials and/or procedures requirements are as follows:

- a) Load salt and/or Winter Abrasive containing salt on a containment pad or the evapotranspiration liner surface;
- b) Store salt and/or Winter Abrasive containing salt at a height below the top 30 centimetres of the skirt within a steel/fabric salt shed and ensure the top of the lock block wall remains free of salt accumulation;
- c) Park heavy equipment used for loading salt or Winter Abrasive containing salt, on the containment pad, evapotranspiration liner or within the salt shed;
- d) Prevent spillage onto the pit floor when transporting salt;
- e) Store Winter Abrasive containing salt under cover or on a containment pad or on an evapotranspiration liner, if supplied;
- f) Use a spill proof apron for salt hoppers to contain salt and facilitate retrieval;
- g) Store salt contaminated material for future use with Winter Abrasives on a containment pad or evapotranspiration liner or in a salt shed;
- h) Prevent salt contaminated materials from being tracked from the containment pad or evapotranspiration liner and use a containment pond for disposal, if one exists on site;
- i) Maintain an open catchment area adjacent to the salt shed exterior walls to accommodate unobstructed snow shedding off the structure;
- j) Remove snow from the roof of steel/fabric salt shed and adjust the roof tension after the snow accumulation has been removed in accordance with the manufacturer's specifications and recommendations;
- k) Reseal exposed surfaces following the removal of surface rust with zinc-rich primer/paint;
- l) Maintain and repair damaged or deteriorated salt shed components in accordance with the manufacturer's specifications and recommendations;
- m) Use engineered designs for all repairs, modifications or replacement to steel/fabric salt shed structural components, including but not limited to the fabric roof, prepared by a Professional Engineer, retained by the Contractor; and
- n) Securely lock gates and post signage to prevent unauthorized access to fenced containment ponds.

#### **1.06.4 Routine Maintenance Services Cap**

\$50,000 – for each occurrence, the cost to repair or replace a salt shed.

## 1.07 Winter Abrasives

### 1.07.1 Outcome

To minimize the development of Slippery conditions and restore traction on sections of the #491 Babine Lake Road, #35 Hudson Bay Mountain Road, and #37 Cassiar Highway.

### 1.07.2 Materials and/or Procedures

Additional materials and/or procedures requirements are as follows:

#### **Materials**

- a) Materials in accordance with the maximum allowable particle size for Winter Abrasive and the mean Gradation limits when tested according to ASTM Designations C136 and C117, and as follows:

Particle Size	Winter Abrasive Type
	Type B
a) Maximum particle size	12.5 mm
b) % Passing 12.5 mm	100
c) % Passing 9.5 mm	80 to 100
d) % Passing 4.75 mm	50 to 95
e) % Passing 2.36 mm	30 to 80
f) % Passing 0 to 0.6 mm	10 to 50
g) % Passing 0 to 0.3 mm	0 to 25
h) % Passing 0 to 0.075 mm	0 to 6

#### **Notes:**

- 1) The section of #491 Babine Lake Road extends from kilometre point 16.210 to 64.381; and
- 2) The section of #35 Hudson Bay Mountain Road extends from kilometre point 4.930 to 19.985.
- 3) The section of #37 Cassiar Highway extends from kilometre point 156.505 to 220.709