# **Table of Contents**

1 8	SELKIRK	1
1.01	Definitions	1
1.02	Communications Centre - Revelstoke	2
1.03	Highway Crossing Infrastructure	4
1.04	Invasive Plants Management	6
1.05	Salt Containment Infrastructure Maintenance	8
1.06	Snow Avalanche Response – 38100 Highway 1 West of Revelstoke	12
1.07	Snow Avalanche Response – 38200 Highway 1 East of Revelstoke	13
1.08	Snow Avalanche Traffic Management	14
1.09	Snow Shed Maintenance	15
1.10	Vehicle Inspection Station Maintenance	16

## 1 SELKIRK

## 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 salt for winter maintenance operations including, but not limited to the salt shed, fabric/steel roofing, pit floor, evapotranspiration liner, containment pad, and skirt.

"Snow Shed" means a Structure, including all of its components that is built over a Highway, designed to deflect snow avalanches.

#### 1.02 Communications Centre - Revelstoke

#### 1.02.1 Outcome

To provide enhanced coordination and communication for Highway 1 from Sicamous to the Alberta border, and all the other Highways in Service Area 12, exceeding the performance measures in General Specification 7.05 of this Schedule 1 ("Specifications"), related to various conditions, including but not limited to:

- · Active avalanche areas, warnings and control;
- Road closures due to avalanche control and incidents;
- Limited detour options;
- High seasonal traffic volumes, and;
- Impacts on affected ferry service providers and adjacent Service Areas.

#### 1.02.2 Routine Maintenance Services

PM1.02.2-1 Operate a communications centre, 24 hours per day, 7 days a week, from November 01 to March 31.

PM1.02.2-2 Monitor, receive and respond to complaints, comments and requests for service at all times, and as directed by the Province.

## Specific Requirements:

a) Locate the communications centre in Revelstoke.

#### 1.02.3 Materials and/or Procedures

- a) The Contractor is the sole point of contact and is responsible for coordinating activities and responding directly to the Province;
- b) Respond to winter event related complaints, or requests for information from the public, and Stakeholders that require direct and responsive action;
- c) Plan, monitor, coordinate and document activities of the Contractor, the Province, Parks Canada and other agencies that may impact traffic;
- d) Notify the ferry service providers on the Shelter Bay to Galena Bay, Needles to Fauquier, and Balfour to Kootenay Bay routes, that extended service is required during prolonged lane closures along any Highway in Service Area 12;
- e) Coordinate detour routes with maintenance contractors beyond Service Area boundaries to ensure minimum disruption to Highway Users;
- f) Issue public notifications and media briefings for Traffic Delays;
- g) Provide road condition updates to the public, Stakeholders and the Province, including updates for the dynamic message signs and road reports; and

h) Stakeholders to be consulted are listed below, and may be amended by the Province from time to time during the Term:

Sta	keholder	Specific Groups	
a)	Province	District Staff (Operations, Snow Avalanche, Radio Communications), Marine Branch, Regional Transportation Management Centre and Province Travellers Information System (Low frequency radio broadcast stations)	
b)	Highways Maintenance Contractors	Road Crews	
c)	Parks Canada	District Staff, Snow Avalanche Staff, Road Crews, Warden Service, and Banff Dispatch	
d)	Canadian Pacific Railway	Train Operations – Rail Traffic Controllers (RTC) Calgary and Division Operations – Revelstoke	
e)	Municipalities	City of Revelstoke and Town of Golden	
f)	Royal Canadian Mounted Police	General Duties Section and Highway Patrol	
g)	Automobile Associations	British Columbia Automobile Association and Alberta Motor Association	
h)	Others	Transportation companies, local individuals and other companies directly involved or impacted by the closure of Highways	

## 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 Infrastructure.

# 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:

Per	rformance 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:

 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 Salt Containment Infrastructure Maintenance

#### 1.05.1 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.

## 1.05.2 Routine Maintenance Services

PM1.05.2-1	Off-load salt onto an evapotranspiration liner or containment pad, if
	available and/or store immediately within the salt shed.

PM1.05.2-2 Retrieve and return to the salt shed immediately, any salt spillage over the top of skirt that lines the inside of the salt shed.

PM1.05.2-3 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.

PM1.05.2-4 Notify the Province immediately of any damage to the containment pond, including but not limited to the liner, berm or fencing.

PM1.05.2-5 Temporarily repair damaged or deteriorated salt shed components immediately, that permits water infiltration.

PM1.05.2-6 Permanently repair within 8 weeks, any temporarily repaired steel/fabric salt shed components that permits water infiltration.

PM1.05.2-7 Permanently repair within 2 weeks, any temporarily repaired wooden salt shed components that permits water infiltration.

PM1.05.2-8 Inspect and document the condition of Salt Containment Infrastructure as follows:

Pei	rformance 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 crossbracing, fabric roof, fabric lashing, winches and vents, lockblocks 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

# PM1.05.2-9 Maintain the superstructure of steel/fabric salt sheds as follows:

Pei	rformance 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

# PM1.05.2-10 Repair or replace Salt Containment Infrastructure as follows:

Per	formance 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 PM1.05.2-8
e)	Damaged or deteriorated steel/fabric salt shed components	within 8 weeks of the bi-annual inspection or as noted in PM 1.05.2-8 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 of this Schedule 1 ("Specifications") for a Class 4 Highway

# PM1.05.2-11

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:

- The Province inspection H-form is to be used for inspections of steel/fabric salt sheds; and
- 2) PM1.05.2-10 (f) includes possible Quantified Maintenance Services
- 3) Salt Shed locations are provided in Appendix A of Schedule 13 ("Gravel Licence").

# 1.05.3 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:
- Maintain an open catchment area adjacent to the salt shed exterior walls to accommodate unobstructed snow shedding off the structure;
- 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;
- I) 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
- Securely lock gates and post signage to prevent unauthorized access to fenced containment ponds.

## 1.05.4 Routine Maintenance Services Cap

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

## 1.06 Snow Avalanche Response – 38100 Highway 1 West of Revelstoke

#### 1.06.1 Outcome

To provide an enhanced snow avalanche response exceeding the performance measures in General Specification 3.04 of this Schedule 1 ("Specifications") to minimize Highway lane closures and facilitate the safe and orderly flow of traffic.

#### 1.06.2 Routine Maintenance Services

PM1.06.2-1

Commence removal of snow avalanche deposits immediately upon being notified by the Province from the Highway, at a minimum removal rate of 1400 cubic metres per hour with uninterrupted service until the deposits are removed.

PM1.06.2-2

Commence the removal of snow deposits within 12 hours upon being notified by the Province from catchment areas, static defence structures and safety structures at a minimum removal rate of 800 cubic metres per hour, with uninterrupted service until the deposits are removed.

PM1.06.2-3

Provide one personnel continuously 24 hours per day, to patrol and provide avalanche occurrence observations to the Province, when the avalanche hazard forecast level is moderate or higher.

#### 1.06.3 Materials and/or Procedures

 a) Comply with the Rocky Mountain District Avalanche and Incident Traffic Management Plan for Trans Canada Highway Corridor.

## 1.07 Snow Avalanche Response – 38200 Highway 1 East of Revelstoke

## 1.07.1 Outcome

To provide an enhanced snow avalanche response exceeding the performance measures in General Specification 3.04 of this Schedule 1 ("Specifications") to minimize Highway lane closures and facilitate the safe and orderly flow of traffic.

#### 1.07.2 Routine Maintenance Services

PM1.07.2-1

Commence removal of snow avalanche deposits immediately upon being notified by the Province from the Highway at a minimum removal rate of 800 cubic metres per hour, with uninterrupted service until the deposits are removed.

PM1.07.2-2

Commence the removal of snow deposits within 12 hours upon being notified by the Province from catchment areas, static defence structures and safety structures at a minimum removal rate of 500 cubic metres per hour, with uninterrupted service until the deposits are removed.

PM1.07.2-3

Provide one personnel continuously 24 hours per day, to patrol and provide avalanche occurrence observations to the Province, when the avalanche hazard forecast level is moderate or higher.

#### 1.07.3 Materials and/or Procedures

b) Comply with the Rocky Mountain District Avalanche and Incident Traffic Management Plan for Trans Canada Highway Corridor.

# 1.08 Snow Avalanche Traffic Management

## 1.08.1 Outcome

To provide enhanced traffic management exceeding the performance measures in the General Specifications of this Schedule 1 ("Specifications") related to Highway lane closures due to extraordinary snow avalanche conditions.

## 1.08.2 Routine Maintenance Services



Commence traffic management immediately upon notification from the Province, in accordance with the Rocky Mountain District Avalanche and Incident Traffic Management Plan for Trans Canada Highway Corridor.

## 1.08.3 Materials and/or Procedures

a) Comply with the Rocky Mountain District Avalanche and Incident Traffic Management Plan for Trans Canada Highway Corridor.

## 1.09 Snow Shed Maintenance

#### 1.09.1 Outcome

To ensure the safe and efficient operation of the Jack MacDonald Snow Shed, Twins Snow Shed and Lanark Snow Shed.

#### 1.09.2 Routine Maintenance Services

PM1.09.2-1 Notify the Province immediately of any electrical system failures.

PM1.09.2-2 Maintain, repair or replace structural components in accordance with the following General Specifications of this Schedule 1 ("Specifications"):

Performance Criteria		General Specifications Schedule 1 ("Specifications")		
rei	Performance Criteria		Specification Reference	
a)	Damaged or deteriorated concrete roof	6.01	Bridge Deck Maintenance	
b)	Damaged or deteriorated ceiling joints	6.04	Bridge Joint Maintenance	

# PM1.09.2-3 Maintain, repair or replace Snow Shed components as follows:

Performance Criteria		Response
a)	Damaged or deteriorated doors and locks	immediately
b)	Clear Debris and Accumulations from the top of the Snow Shed	annually

#### Notes:

- 1) The Contractor is not responsible for electrical maintenance; and
- 2) PM1.09.2-2 includes possible Quantified Maintenance Services.

## 1.09.3 Materials and/or Procedures

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

Additional materials and/or procedures requirements are as follows:

a) The response for permanent repairs to doors or locks begins when the Contractor detected or was made aware of the requirement for the temporary repair.

## 1.10 Vehicle Inspection Station Maintenance

#### **1.10.1 Outcome**

To facilitate the safe and efficient operation of Vehicle Inspection Stations.

#### 1.10.2 Routine Maintenance Services

## PM1.10.2-1

Provide Services at the Vehicle Inspection Station areas in accordance with the response identified in the Vehicle Inspection Station plan in Appendix A.

# **Specific Requirements:**

a) Remove Winter Accumulations from all Travelled Lanes and vehicle accessible portions of the Vehicle Inspection Station in accordance with PM3.01.2-1 (a) of the General Specifications of this Schedule 1 "Specifications").

#### Notes:

 The Contractor is not responsible for the buildings or for the management and maintenance of the weigh scale, electrical components and the water and septic systems.

#### 1.10.3 Quantified Maintenance Services

PM1.10.3-1

Provide Services at the Vehicle Inspection Station areas in accordance with the response identified in the Inspection Station plan in Appendix A.

#### Notes:

 The Contractor is not responsible for the buildings or for the management and maintenance of the weigh scale, electrical components and the water and septic systems.

#### 1.10.4 Materials and/or Procedures

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

## 1.10.5 Warranty

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

# **Appendix A Vehicle Inspection Station Plan**

