

B.C. MINISTRY OF TRANSPORTATION

Maintenance Specification Chapter 4-350

ROADSIDE VEGETATION CONTROL

1. OBJECTIVE

To ensure visibility for Highway Users; to control noxious weeds; to facilitate effective drainage; and to reduce possible fire hazards.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

Not applicable to this Maintenance Specification.

2.2 Quantified Maintenance Services

All services for this Maintenance Specification are Quantified.

3. DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

Not applicable to this Maintenance Specification.

3.1.1 Performance Time Frames

Not applicable to this Maintenance Specification.

3.2 Quantified Maintenance Services

The Contractor must:

- a) remove vegetation beyond the Shoulder edge that:
 - i) causes Sight Distance obstructions on curves or at intersections of Highways and at accesses;
 - ii) causes Sight Distance obstructions at Railway Crossings or Railway Crossing Approaches;

- iii) obscures the visibility of Signs, delineators, animal reflectors, other Roadside features or for Highway Users;
 - iv) constitutes noxious weeds; and
 - v) impedes drainage.
- b) perform Shoulder mowing along Class 1-5 Highways to a width of 1.8 metres beyond the Shoulder edge;
 - c) perform area mowing at locations and to a width as determined by the District Manager, Transportation;
 - d) perform Rest Area mowing within 1.8 m of pathways, picnic table areas, buildings and other Rest Area facilities, Highways and parking areas;

Note: All mowing (Shoulder, area and Rest Area mowing, must be reported in Shoulder swath kilometres (ssk); 1 ssk is equal to one swath 1.8 m wide by 1,000 m long; and, 1 hectare equals 5.5 ssk.

- e) mow to the lowest possible height given the terrain, using an industry standard mower.
- f) remove Danger Trees that are unsafe or have the potential to become unsafe to Highway Users and/or adjacent lands;

Note: The Contractor is not responsible for remedying large volumes of Danger Trees at any particular structurally damaged stand adjacent to the Highway;

- g) remove overhanging limbs within any Right-of-way that are at an elevation of between 0 and 8 meters above the Travelled Lanes as follows:
 - i) within 3 meters of the Shoulder edge on Class 1 to 3 Highways; and
 - ii) within 2 meters of the Shoulder edge on Class 4 to 7 Highways;

- h) remove trees and brush when maximum height above the Travelled Lane is reached and is as specified in the table below:

Summer Highway Classification	VEGETATION ZONE Distance from the Shoulder edge where vegetation control is required	Vegetation control is required when trees and brush exceed this height within vegetation zone
Medians and interchanges	1.5 to 15 metres	2 metres
Class 1 - 6 Highways	0 to 1.8 metres	.5 metres
Class 1-3 Highways	1.8-7 metres	3 metres
Class 4-6 Highways	1.8 to 5 metres	4 metres
Class 7 Highways	0-1.8 metres	4 metres

- i) dispose of vegetation control cuttings that represent a hazard, obstruct drainage or create a nuisance;
- j) remove vegetation as necessary to reduce winter icing problems;
- k) remove vegetation within a 5 meter perimeter of Bridges and other structures to facilitate inspections and maintenance;
- l) not remove vegetation, except for Danger Trees, where ground elevation where the vegetation is located is more than 3 metres above or below the Travelled Lane elevation;
- m) on public Highways under section 4 of the Highway Act, brush to the fence line where fences have been erected by the landowner through private property or to the brush line from previous brushing;

Note: Where fences or previous brushing lines do not exist, the Contractor must obtain permission of the landowners to proceed with the maintenance work. Where permission is denied, the Contractor must advise the Province.

Only where section 4 Highways pass through properties where the status of the Highway is the subject of litigation, where the Province determines that the status is questionable, or where it runs through Federal lands, is the Right-of-way considered to be limited to the working surface. In disputed cases, the Contractor must take adequate steps to ensure public safety in regard to travel on the Highway before leaving the location.

- n) remove Danger Trees and vegetation on private land that restrict Sight Distance and are unsafe or have the potential to become unsafe for Highway Users, after securing permission from the landowner, or if unable to secure permission in a timely manner, notify the Province immediately and perform vegetation control as directed by the Province;
- o) remove vegetation that obstructs drainage in accordance with the Maintenance Specification for *Ditch and Watercourse Maintenance*, with credit for the work under the Maintenance Specification for *Ditch and Watercourse Maintenance*, only if it is completed with earth moving equipment; and
- p) control vegetation from the Shoulder edge to the edge of the pavement in accordance with the Maintenance Specification for *Highway Shoulder Maintenance*.

Note: The Contractor will not be required to:

- 1. control vegetation beyond the ditch Backslope in provincial parks unless such vegetation is unsafe or has potential to become unsafe for Highway Users or as otherwise directed by the Province.
- 2. remove standing timber except where it is unsafe or has the potential to become unsafe for Highway Users.

3.2.1 Performance Time Frames

The Contractor must:

- a) remove vegetation as described in 3.2.a) i) ii), iii) and v) immediately, from the time the deficiency was detected by or reported to the Contractor;
- b) cut noxious weeds prior to the development of seed;

- c) perform Shoulder mowing, area mowing and Rest Area mowing when the grass reaches 25 cm; up to a maximum of 2 cuts per year;
- d) remove Danger Trees within 7 days from the time the deficiency was detected by or reported to the Contractor;
- e) identify and flag any Danger Tree site immediately from the time the deficiency was detected by or reported to the Contractor;
- f) plan to perform all identified vegetation control within the Contract Year to the limit of the identified quantities. Where identified work exceeds the available quantities in any Contract Year, the Contractor must ensure identified repairs are carried out in order of priority to ensure safety and to protect the infrastructure.

3.3 Materials

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

4. WARRANTY

Not applicable to this Maintenance Specification.

B.C. MINISTRY OF TRANSPORTATION

Maintenance Specification Chapter 4-370

LITTER COLLECTION AND GRAFFITI REMOVAL

1. OBJECTIVE

To keep Highways clean and tidy.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

The Contractor must:

- a) remove litter and graffiti from Highways that is visible from the Travelled Lanes;
- b) locate and empty litter receptacles at Rest Areas, Pull-outs and at Weigh Scale Areas;
- c) remove graffiti from the Right-of-way to return the marked surface to the original condition if possible. If the graffiti material cannot be removed, apply covering paint of an appropriate colour in a manner to minimize the aesthetic impacts of the repair and in accordance with the paint manufacturer's specifications; and
- d) report vehicles or equipment abandoned on the Right-of-way to the RCMP or the local police.

2.2 Quantified Maintenance Services

Not applicable to this Maintenance Specification.

3. DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

3.1.1 Performance Time Frames

The Contractor must:

- a) collect litter in compliance with the minimum litter collection frequencies specified in the following table:

Summer Highway Classification	Minimum Frequency of Debris and Litter Collection
Highways with traffic volumes over 50,000 vehicles per day	every 7 d
Highway 1 and other Lower Mainland multi-lane Highways, 4-lane Highways on Vancouver Island and other Urban Freeways	every 14 d
other Urban Highways	every 21 d
other Class 1 Highways	every 30 d
other Class 2 Highways and designated routes to garbage disposal sites	every 60 d
other Class 3 Highways	every 90 d
all other Highways	every 6 m

Legend

d – days

m – months

- b) remove or cover graffiti on natural features and Highway inventory within the times listed in the following table:

Summer Highway Classification				
1&2	3	4	5	6&7
3 d	6 d	9 d	15 d	30 d

Legend

d - days

- c) empty litter receptacles every three days or when they become full, whichever occurs first; and
- d) pick up and remove all litter in and around Rest Areas, Pull-outs and at Weigh Scale Areas at the same time as litter receptacles are emptied.

3.2 Quantified Maintenance Services

Not applicable to this Maintenance Specification.

3.1.2 Performance Time Frames

Not applicable to this Maintenance Specification.

3.2 Materials

Not applicable to this Maintenance Specification.

4. WARRANTY

Not applicable to this Maintenance Specification.

B.C. MINISTRY OF TRANSPORTATION

Maintenance Specification Chapter 4-380

REST AREA AND ROADSIDE FACILITY MAINTENANCE

1. OBJECTIVE

To provide safe, clean and sanitary toilet and picnic facilities for Highway Users.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

The Contractor must maintain all structures, fixtures and appliances at Rest Area sites and Roadside facilities.

2.2 Quantified Maintenance Services

Not applicable to this Maintenance Specification.

3. DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

The Contractor must:

- a) clean and disinfect all plumbing fixtures and mirrors;
- b) clean and disinfect all sanitary and waste receptacles, floors, wall bases and dispensers of supplies;
- c) maintain and stock all dispensers with supplies;
- d) ensure that floor drains and traps are operational;
- e) ensure buildings and structures are free of all cobwebs;
- f) clean, refinish or re-paint all building surfaces damaged by graffiti;
- g) remove snow and ice from the outer entrance doors, floor areas and walkways;

- h) install interior winter vent covers before first snowfall (or before October 15 of each year at the latest) and remove the covers April 1 of each year at the latest;
- i) clean, varnish and seal as required picnic table tops and seats, wood seats and base ends;
- j) remove all Debris from areas surrounding the building and clean concrete, asphalt and gravel walkways;
- k) clean light fixtures and ensure they are functional and properly assembled;
- l) ensure that septic and holding tanks, septic fields and sewage lagoons are operating properly at all times;
- m) maintain composting toilets in accordance with the operating manual for that particular composting toilet;
- n) maintain, repair and/or replace as required all structures, heating systems, water systems, walkways, fixtures and appliances;
- o) provide vegetation control in accordance with the Maintenance Specification for *Roadside Vegetation Control*, with credit for such work under the Maintenance Specification for *Roadside Vegetation Control*;
- p) report acts of vandalism and misuse of a Rest Area or Roadside facility to the police and the Province;
- q) remove or cover Rest Area and Roadside facility advance and directional signing and board over or lock entrance doors for those facilities that are closed during the winter in accordance with the requirements for each particular facility;
- r) maintain Rest Area access roads and parking lots in accordance with all specifications for roads of one Classification lower than the adjacent Highway; and

Note: If it is estimated by the Contractor and confirmed by the Province, that at any particular time for a Rest Area or Roadside facility, the costs to repair or replace a structure, heating system, water system, sewer system, fixture or appliance, exceeds \$10,000, refer to Section G of the Introduction to these Maintenance Specifications.

3.1.1 Performance Time Frames

The Contractor must:

- a) repair any failure of heating, water supply or sewer system at a Rest Area or Roadside facilities within two hours from the time the deficiency was detected by or reported to the Contractor;
- b) repair any structural components such as broken doors, broken or missing roof vents or roof leaks within 2 hours from the time the deficiency was detected by or reported to the Contractor; and, immediately respond to any major repairs, as determined by the Contractor and approved in writing by the Province, completing those agreed to major repairs within 14 days of receiving approval;
- c) perform maintenance on the facilities within the minimum frequencies indicated on the following table:

Facilities Maintenance	Class A Rest Areas	
	Oct. 15 to March 31 each year (inclusive)	April 1 to Oct. 14 of each year (inclusive)
i) clean plumbing fixtures including exterior surfaces of structures	daily	daily
ii) check or inspect structures for damaged, missing or faulty components and complete repairs or replacement	daily	daily
iii) ensure that all heating apparatuses are in working order and that thermostats are set properly	daily	daily or more often if required
iv) clean and restock toiletry receptacles	as required	as required
v) clean and disinfect floors including wall bases, drains and traps	3 times per week	daily
vi) clean interior surfaces of partitions, seats, walls including the enamel surfaces, piping and toilet seat hinges	3 times per week	3 times per week

Facilities Maintenance	Class A Rest Areas	
	Oct. 15 to March 31 each year (inclusive)	April 1 to Oct. 14 of each year (inclusive)
vii) clear all cobwebs from inside and outside of buildings	daily	daily or more often if required
viii) remove marks and graffiti from walls	daily	daily or more often if required
ix) remove litter in the area surrounding the building and sweep walkways and remove weeds	daily	daily or more often if required
x) empty and recharge chemical toilets, pump out pit toilets, and maintain a clean, sanitary and odour-free facility	daily	daily or more often if required
xi) remove snow from the outer entrance doors; remove drifting or tracked-in snow in the vestibule areas and clear snow and ice off abutting concrete pads under the drip line of the building roofs; apply salt or other chemicals to ensure paths are kept in a safe condition free from ice and snow	daily	daily or more often if required
xii) clean and/or wash interior walls, ceilings and light fixtures to maintain sanitary conditions	weekly	weekly or more often if required
xiii) charge pit toilets with a commercial enzyme	monthly	weekly
xiv) monitor sewage level of disposal systems and ensure proper functioning	bi-monthly	monthly
xv) clean concrete terrazzo picnic table tops	bi-monthly	weekly
xvi) prepare concrete terrazzo table tops and apply a minimum of one coat of terrazzo sealer; sand down to base wood and varnish picnic table seats	yearly	yearly

Note: For Class B and C Rest Areas, the Contractor must perform maintenance described in Section 3.1.1. i), iii), iv), xi) and xii) twice weekly during October 15 through March 31 of each year, three times per week during April 1 through October 14 of each year, and all other maintenance in accordance with the frequencies specified for Class A Rest Areas. The Contractor must maintain appliances located at other Roadside facilities at the same frequencies as indicated for a Class C Rest Area. Some Rest Areas, as determined by the Province, may be closed over the winter months or during other specified periods in which case these maintenance requirements are suspended during the closure.

3.2 Quantified Maintenance Services

Not applicable to this Maintenance Specification.

3.2.1 Performance Time Frames

Not applicable to this Maintenance Specification.

3.3 Materials

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

4. WARRANTY

Not applicable to this Maintenance Specification.

B.C. MINISTRY OF TRANSPORTATION

Maintenance Specification Chapter 4-400

ROADSIDE FENCE MAINTENANCE

1. OBJECTIVE

To prevent game, Wildlife, Livestock and pedestrians from entering onto the Highway, restore the functionality of Specialty Fences.

2. GENERAL PERFORMANCE SPECIFICATIONS

2.1 Routine Maintenance Services

The Contractor must:

- a) repair fences along Schedule 1 and Schedule 2 Highways; and
- b) provide initial traffic control until police authorities or Livestock owners arrive at the scene.

2.2 Quantified Maintenance Services

The Contractor must perform permanent repairs on fences.

3. DETAILED PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services

The Contractor must:

- a) make temporary repairs to fences along Schedule 1 and Schedule 2 Highways to restore the functionality of any section of fence that has been damaged as a result of the following:
 - i) motor vehicle accidents;
 - ii) acts of vandalism;
 - iii) fallen trees from the Right-of-way;
 - iv) slides, fire, flood; or
 - v) other natural occurrences; and

- b) provide initial traffic control in accordance with the Maintenance Specification for *Highway Traffic Control* until the police or livestock owners are on site to remove the livestock.

3.1.1 Performance Time Frames

The Contractor must:

- a) start temporary repairs within 1 hour, from the time the deficiency was detected by or reported to the Contractor, to fences along Schedule 1 and Schedule 2 Highways when the damage is the result of one of the conditions described in 3.1 a); and where livestock is loose, or has the potential to get loose;
- b) start temporary repairs within 24 hours, from the time the deficiency was detected by or reported to the Contractor, to fences along Schedule 1 and Schedule 2 Highways when the damage is the result of one of the conditions described in 3.1 a); and where no livestock is loose, or has the potential to get loose.

3.2 Quantified Maintenance Services

The Contractor must:

- a) make permanent repairs to or construct new Specialty Fences;
- b) make permanent repairs to fences along Schedule 1 and Schedule 2 Highways when the damage is the result of one of the conditions described in section 3.1 a);
- c) repair all fences consistent with the existing type of fence or as approved in writing by the Province.

3.2.1 Performance Time Frames

The Contractor must:

- a) commence temporary repairs to Specialty Fences, when the repair is of a safety-related nature, within 1 hour from the time the deficiency was detected by or reported to the Contractor;
- b) complete permanent repairs to Specialty Fences within 7 days from the time the deficiency was detected by or reported to the Contractor;

- c) complete permanent repairs to fences along Schedule 1 and Schedule 2 Highways within 7 days from the time the deficiency was detected by or reported to the Contractor; and
- d) plan to perform all identified fence repairs and installations within the Contract Year to the limit of the identified quantities. Where identified work exceeds the available quantities in any Contract Year, the Contractor must ensure identified repairs are carried out in order of priority to ensure safety and to protect the infrastructure;
- e) for permanent repairs to, or construction of Specialty Fences, the Contractor and the Province will negotiate a price for the work to the limit of the Quantified Provisional Sum identified for such work within the Contract Year and the Contractor must complete such work in accordance with this Maintenance Specification.

3.3 Materials

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

4. WARRANTY

Not applicable to this Maintenance Specification.