

Best Management Practices – Asphalt applications –

Mt Revelstoke & Glacier National parks

- 1) The project manager shall ensure that all work is performed in accordance with the ordinances, laws, rules and regulations set out in the Canada National Parks Act and Regulations.
- 2) Execution of the work is subject to the provisions within the *Canadian Environmental Assessment Act* (CEAA). Failure to comply with or observe environmental protection measures as identified in these specifications may result in the work being suspended pending rectification of the problems.

General

- 1) All staff employed at the construction site will be subject to an environmental briefing regarding their individual and collective responsibilities to ensure avoidable adverse environmental impact does not arise from their activities and personal choices. In addition, this document will be available on site and provided to any new workers and/or sub-contractors.
- 2) The project manager shall ensure that the environment beyond the work limits is not negatively impacted or damaged by workers' vehicles or construction machinery and shall instruct workers so that the "footprint" of the project is kept within defined boundaries. The work limits shall be identified by stake and ribbon or other methods approved by the project manager. Unless authorized by the project manager, activities beyond the work limits are not permitted. No machinery will enter, work in or cross over streams, rivers, wetlands, water bodies or watercourses, nor damage aquatic and riparian habitat or trees and plant communities.
- 3) Personal vehicles shall be parked at least 10 metres distance from any watercourse and are to remain within the construction footprint.

- 4) The project manager shall ensure that all soil, seeds and any debris attached to construction equipment to be used on the project site shall be removed (e.g. power washing) outside the National Parks before delivery to the work site to prevent the spread of invasive weeds.
- 5) A fire extinguisher shall be carried and available for use on each. Any fires should be reported to Jasper Dispatch **780-852-3100**. Fires or burning of waste materials is not permitted.
- 6) All historical or archaeological objects found in National Parks are protected under the National Parks Act and Regulations and are the property of Parks Canada. The project manager and workers shall protect any articles found and request direction from the Cultural Resource Office – **250 837 7500**.
- 7) Trucks for hauling asphalt mixture shall have tight, clean, smooth metal beds that have been sprayed with a minimum amount of thin fuel oil to prevent the mixture from adhering and causing waste asphalt. The vehicle covers shall be securely fastened. Excess truck box lubricants such as light oil, detergent or lime solutions shall not be allowed to contaminate the mix, and shall be disposed of in an environmentally acceptable manner. Truck box lubricant application shall be carried out in a containment berm.
- 8) Asphalt plant operation must comply with all environmental pollution control regulations applicable in the plant area (i.e. controlled spraying of sealant within 20-metres of any watercourse) The application of the emulsion will be restricted to the road surface only. The sprayer boom will be operated as close to the road surface as possible, and not over the edge of the shoulder, in order to prevent contamination of road side vegetation, and negative aesthetic impacts.
- 9) Grade construction conducted close to any watercourse, water body or wetland will employ methods to ensure materials are not pushed, fall and/or are eroded into the water or wetlands. Generally, work within a 30 metre buffer of waterways or wetlands will require monitoring by the Resource Conservation department.

- 10) No grade building shall occur outside of the designated area or within 1 metre of the drip line of existing forest. Any material inadvertently falling outside the work limits is to be removed promptly in a manner that does not damage trees or vegetation at that location. Materials shall be placed at storage sites or on the grade without spillage outside the working limits. Any material inadvertently falling outside the work limits is to be removed promptly in a manner that does not damage trees or vegetation at that location
- 11) Pavement marking shall be undertaken pursuant to standard methods applied in National Parks for control of paint products, both in transport and handling. The project manager or designate of the prime contractor shall present a description of methods to be employed for transporting and controlling paint and hazardous products, application of paint, cleaning of equipment, containment and disposal of waste paint and cleaning products, etc.

Water

- 1) Erosion control measures that prevent sediment from entering any waterway, water body or wetland in the vicinity of the construction site are a critical element of the project and shall be implemented by the project manager. If necessary, on-site sediment control measures shall be constructed and functional prior to initiating activities associated with the asphalt plant and the paving.
- 2) Equipment refueling and lubrication must not occur within thirty meters (30) of an aquatic habitat. All refueling operations must have appropriate spill protection measures in place.
- 3) The prime contractor shall prepare an Erosion and Sedimentation Management Plan for the components of this contract that are undertaken within 100 metres of any watercourses, wetlands or riparian environments. This plan will be reviewed by the Resource Conservation department representative. If sediment ponds are required, they shall be designed to settle all sediment particles 0.02 mm or larger. The ponds shall also be designed to handle 1:5 year storm events, with overflow spill capacity for 1:10 year storm events and emergency spillway capacity for 1:100 year storm events.
- 4) The desired end result of an Erosion and Sedimentation Management Plan is to allow no release into watercourses of sediments in levels that are deleterious to fish or that would

harmfully alter, disrupt, or destroy fish habitat. Similarly there is to be no sediment release into areas of vegetation growth or sensitive areas of sediments in levels that would adversely alter growing or hydraulic conditions. The target is 0 mg/L of TSS over background levels. The threshold is a maximum instantaneous increase of 25 mg/L over background levels when background levels are <250 mg/L, or a maximum instantaneous increase of 10% over background levels when background levels are >250 mg/L. This threshold shall not be exceeded.

- 5) The regular monitoring and maintenance of all erosion control measures shall be the responsibility of the prime contractor.
- 6) The site will be secured against erosion during any periods of construction inactivity or shutdown.
- 7) The project manager shall prevent any deleterious and objectionable materials from entering streams, rivers, wetlands, water bodies or watercourses that would result in damage to aquatic and riparian habitat. Generally, hazardous or toxic products shall be stored no closer than 100 metres from water.
- 8) The project manager shall instruct workers to prevent pushing, placement, ravelling, storage or stockpiling of any materials (e.g. slash, rock, fill or topsoil) in the trees bordering the right-of-way or into watercourses or water bodies.
- 9) Water can be obtained Glacier compound in Glacier National park – no water shall be taken from an unlicensed water source.

Spills

- 1) A Spill Response Plan will be prepared by the prime contractor and shall detail the containment and storage, security, handling, use and disposal of empty containers, surplus product or waste generated in the application of these products. This plan should include proper containment for on-site fuels.

- 2) The project manager shall ensure the site is equipped with spill kits at re-fuelling and lubrication stations, and repair locations. The kits will be capable of dealing with 110% of the largest potential spill and shall be maintained in good working order on the construction site.
- 3) In the event of any spill of solvents, fuels, or other fluids to the ground or to a body of water, immediately contact the Parks Canada Resource Conservation department - **250 837 7500**. Contaminated soils need to be cleaned up and disposed of properly.
- 4) Large spills or spills to bodies of water must be reported to the Provincial Emergency Program – **1-800-663-3456**.
- 5) The costs involved in a spill incident (the control, clean up, disposal of contaminants and site remediation to pre-spill conditions), shall be the responsibility of the prime contractor. The site will be inspected to ensure completion to the expected standard and to the satisfaction of the Resource Conservation Departmental Representative.
- 6) Fuel containers and lubricant products shall be stored only in secure locations specified by the project manager. Fuel tanks or other potentially deleterious substance containers shall be secured to ensure they are tamperproof and cannot be drained by vandals when left overnight in National Parks.

Waste

- 1) Avoid or terminate activities on site that attract or disturb wildlife and vacate the area and stay away from the immediate location if bears, cougars, wolves, elk or moose display aggressive behaviour or persistent intrusion. Extra care to control materials that might attract wildlife (e.g. lunches and food scraps) must be exercised at all times.
- 2) All efforts to prevent wildlife from obtaining food, garbage or other domestic wastes shall be made by the project manager, prime contractor and contract staff while undertaking their work in National Parks. Such wildlife attractants shall not be stored at the work site overnight. Lunches, coolers and food products, including waste food products, shall be securely stored away from access by animals. Daily removal of food scraps, food wrappers, pop cans or other attractive products to bear proof containers is mandatory.

- 3) The project manager and workers shall dispose of hazardous wastes in conformance with the Canadian Environmental Protection Act and applicable provincial regulations while observing the Code of Good Practice for Management of Hazardous and Toxic Wastes at Federal Establishments.
- 4) All wastes originating from construction, trade, hazardous and domestic sources, shall not be mixed, but will be kept separate.
- 5) Construction, trade, hazardous waste and domestic waste materials shall not be burned, buried or discarded at the construction site or elsewhere in National Parks. These wastes shall be contained and removed in a timely and approved manner by the project manager and disposed of at an appropriate waste landfill site located outside the park.

Equipment Cleaning and Good Housekeeping

- 1) At the end of the work shift, remove all the excess asphalt from the paver that you can, using pry bars and other hand tools.
- 2) The asphalt removed from the paver should be incorporated into the project, scarified and blended into the stabilized shoulder if practical, or picked up and hauled back to the plant.
- 3) Asphalt should never be disposed of over a hill, in a body of water, or other non-permitted disposal area.
- 4) Park the paver in an area that is **not** near a stream or a wetland or a ditch that flows directly into a nearby stream or wetland.
- 5) If you cannot park the paver away from these areas, use absorbent pads under the paver to catch drips of solvent.
- 6) Use as little solvent as possible to lubricate, not clean, the surfaces and moving parts of the paver.
- 7) The solvent should be sprayed on the equipment, not poured.
- 8) Do not pour solvent down the bed of the truck to lubricate the bed.

- 9) The solvent should not form puddles under the equipment.
- 10) If you need to use enough solvent that it makes puddles on the ground that could be washed to a stream during a rainfall, use absorbent pads to catch it while you apply the solvent.
- 11) If you use absorbent pads, do not leave them on the ground beneath the paver. Allow the solvent to drip off, then pick up the pads and store them for future re-use and disposal.
- 12) The absorbent pads can be used several times, but they must be thrown away before they are wet and soggy. As long as the solvent cannot be squeezed from the pads, they can be disposed of like other garbage. They should be removed from site for proper disposal.
- 13) If the soaked pad is contaminated with a “listed hazardous waste solvent,” proper disposal as a hazardous waste is required.
- 14) When cleaning tools, servicing equipment or doing routine maintenance, use care to avoid spills, leaks and drips of equipment and cleaning fluids.
- 15) Use absorbent pads during these activities, if needed, and clean up any spills.
- 16) Equipment should be maintained so as to prevent leaks of petroleum products.
- 17) When cleaning up spills, do not leave the material used to absorb the spilled material on the ground. Collect it and return it to the plant for proper disposal.
- 18) During construction, tack over-spray should be covered or cleaned up.
- 19) Use general good housekeeping practices and do not leave waste behind you on the job.