

**Part 1            General**

**1.1               RELATED SECTIONS**

- .1        Section 31 23 15 – Rock Scaling.
- .2        Section 31 23 16.16 – Rock Disposal.

**1.2               REFERENCES**

- .1        Definitions:
  - .1        Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
  - .2        Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

**1.3               ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2        Review the instructions regarding trees and brush as may be made available by the Departmental Representative prior to commencement of work. Include document with the Contractor's Environmental Protection Plan.
- .3        Prior to commencing construction activities or delivery of materials to site, provide Environmental Protection Plan for review and approval by Departmental Representative.
- .4        Ensure Environmental Protection Plan includes comprehensive overview of known or potential environmental issues to be addressed during construction including the protection of all vegetation and existing structures.
- .5        Address topics at level of detail commensurate with environmental issue and required construction tasks.
- .6        Include Departmental Representative's biologist instructions in the Environmental Protection Plan and the following:
  - .1        Names of persons responsible for ensuring adherence to Environmental Protection Plan.
  - .2        Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site, if any.
  - .3        Names and qualifications of persons responsible for training site personnel.
  - .4        Description of environmental protection personnel training program.
  - .5        Erosion and sediment control plan identifying type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.

- .6 Drawings showing locations of proposed material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.
- .7 Traffic Control Plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Ensure plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.
- .8 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Ensure plan includes measures for marking limits of use areas and methods for protection of features to be preserved within authorized work areas.
- .9 Spill Control Plan including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
- .10 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
- .11 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.
- .12 Contaminant Prevention Plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
- .13 Waste Water Management Plan identifying methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, hydrostatic test water, and water used in flushing of lines.

#### **1.4 EXPLOSIVES**

- .1 Blasting or other use of explosives is not permitted on this project.

#### **1.5 FIRES**

- .1 Fires and burning of rubbish on site are not permitted.

#### **1.6 SITE CLEARING AND PLANT PROTECTION**

- .1 Protect trees and plants on site and adjacent properties as directed.
- .2 Wrap in burlap, trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m minimum.
- .3 Protect roots of designated trees to drip line to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .4 Minimize stripping of topsoil and vegetation.
- .5 No trees other than dead or diseased trees shall be cut or removed, except those absolutely necessary for the scaling of the cliff face, and removal of accumulated rock debris. All tree removal and/or pruning must have prior written approval of the Departmental Representative.

- .6 Site works that results in damage to trees which have been designated as requiring special protection shall be replaced by Contractor.
- .7 If requested by Departmental Representative, remove any trees affected by the Dutch Elm disease or by the Emerald Ash Borer in accordance with the Canadian Food Inspection Agency (CFIA) standards for the management of controlled materials.

## **1.7 WORK ADJACENT TO WATERWAYS**

- .1 Construction equipment to be operated on land only and above high water mark.
- .2 Do not use waterway beds for borrow material.
- .3 Waterways to be free of excavated fill, waste material and debris.
- .4 Prevent any silt or rocks from entering river by erecting silt fence and rock catchment fence along shoreline as shown in Drawings C3 and C4.

## **1.8 NOTIFICATION**

- .1 Departmental Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative. Do not take action until after receipt of written approval by Departmental Representative.
- .3 Departmental Representative will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.
- .5 Report all spills immediately to the Departmental Representative and to the Ontario Spills Action Centre (Telephone No. 1-800-268-6060).

## **1.9 GENERAL**

- .1 Comply with all Federal, Provincial, Municipal statutes, regulations, by-laws, industry codes and site specific standards and procedures.

## **1.10 DISPOSAL OF WASTES**

- .1 Maintain the site area and equipment in a clean and orderly manner and remove any rubbish and waste materials from site on a daily basis. Littering on site is prohibited.
- .2 Dispose of waste material (rock, wood, etc.) off site at an appropriate facility or location.
- .3 Remove and dispose of containers and waste fluids associated with equipment and vehicle maintenance at an approved waste disposal site.
- .4 Disposal of waste or volatile materials, such as mineral spirits, oil, or paint thinner into waterways, storm or sanitary sewers is prohibited. All waste materials are to be disposed of at an approved waste disposal site. The Departmental Representative will be advised in advance of any waste transfer.

**1.11 FUEL AND OIL MANAGEMENT**

- .1 Exercise care in handling of fuels to minimize potential for fuel spills. Report immediately any fuel spills to Departmental Representative. Contractor is responsible for any clean up or repair resulting from any spills.
- .2 No refuelling permitted within 60 m of any watercourse including but not limited to the Ottawa River, the Rideau Canal and any storm sewer outfall.
- .3 Prepare a spill contingency plan to address potential spill material, response actions and a spill response contact list.
- .4 Provide spill kits and containment for any stationary equipment, e.g. drip pans.

**Part 2 Products**

**2.1 NOT APPLICABLE**

- .1 Not used.

**Part 3 Execution**

- .1 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.
- .2 Install silt and rock catchment fences as per drawings C3 and C4.
- .3 Provide extra protection of all designated trees against damage from rock fall and equipment.
- .4 Prune only shrubs and branches required to perform the required rock scaling after approval obtained from Departmental Representative.
- .5 Dispose of cut branches and wood off-site at an approved facility.

**END OF SECTION**