# General

## Summary

* + 1. The Work of this Section includes, but is not limited to the following:
       1. Hazardous substances
       2. Environmental protection

## General requirements

* + 1. Assume responsibility for the protection of the environment and the preservation of public health, in the course of and as affected by the Work of the Contract, in accordance with specified requirements and applicable laws, ordinances, rules, regulations, codes and orders of jurisdictional authorities.
    2. Give required notices and follow procedures set out by Authorities having Jurisdiction when working adjacent to or in waterways.
    3. Give required notices and follow procedures set out by Authorities having Jurisdiction when handling or encountering hazardous, toxic, controlled substances (hereinafter referred to as hazardous substances).

## Definitions

* + 1. The following conditions shall be regarded as a hazard to the environment, requiring appropriate action within the scope of this Section:
       1. Soil contamination (PCB, metals, hydrocarbon, radioactive matter, herbicides, pesticides, other hazardous substances).
       2. Presence of friable asbestos.
       3. Presence of abandoned or disused equipment such as fuel tanks, PCB containing equipment and materials (including in-ground hydraulic hoists), batteries, septic tanks, grease / oil interceptors.
       4. Erosion, sedimentation and general disturbance of ecosystems.
       5. Other conditions identified by environmental jurisdictional authorities.

## Hazardous substances

* + 1. “Substances Posing Significant Hazard” means any biological, chemical or physical agent or combination thereof to which exposure of a worker is prohibited, regulated, restricted, limited or controlled by the occupational health and safety enforcement agency of the province/ territory where the Work is to be performed. Should no such provisions be in place in the province/territory where the Work is to be performed, the following substances shall be considered as “Substances Posing Significant Hazard”: Asbestos, Silica, Mercury, Lead, Arsenic, Acrylonitrile, Benzene, and Isocyanates.”
    2. Submit documentation to Consultant to show that all Subcontractors have been provided with lists of the Substances Posing Significant Hazard on site. This list must include both, the name of the substances indicated by the Owner to be on site, as well as any such substance to be used or produced by the Contractor or Subcontractors on site during the life of the Project.
    3. Procedures:
       1. Known conditions: Follow specified requirements in Contract. In case of conflict inform Consultant in writing prior to proceeding.
       2. Accidental spills: Immediately proceed to contain and clean up in accordance with applicable regulations. Where procedures are not known, immediately notify appropriate jurisdictional authority and request directions. Inform Consultant in writing.
       3. Unknown conditions: Should an environmentally hazardous condition or a contaminated area be discovered, quarantine the area affected and do no work that will disturb the hazardous material or contaminated area. Notify the Consultant immediately of the situation verbally and in writing. Conform to applicable legislation and regulations.
    4. Hazardous substances disposal:
       1. Dispose of hazardous substances in accordance with applicable regulations and as directed by Consultant.
       2. Do not under any circumstances, dispose of hazardous substances by burning or burying on site or by discharging into the soil, waterways or drainage system.

## Environmental protection

* + 1. Disposal:
       1. Fires and burning of rubbish on site not permitted.
       2. Do not bury rubbish and waste materials on site.
       3. Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.
       4. Comply with local requirements for sorting and recycling of waste and debris.

**RoD SPEC NOTE:** Edit the following articles below to reflect Work on this Project. Remove articles that are not required on this Project.

(Example) Interior Work would not require erosion and sediment control measures.

* + 1. Erosion and sediment control:
       1. Minimize amount of bare soil exposed at one time. Stabilize disturbed soils as quickly as practical to minimize erosion. Remove accumulated sediment resulting from construction activity from adjoining surfaces, drainage systems, and watercourses, and repair damage caused by soil erosion and sedimentation.
       2. Provide and maintain appropriate temporary measures such as silt fences, straw bales, ditches, geotextiles, drains, berms, terracing, riprap, temporary drainage piping, sedimentation basins, vegetative cover, dikes, and other measures that may be required to prevent erosion and migration of silt, mud, sediment, and other debris.
       3. Do not disturb existing embankments or embankment protection.
       4. Periodically inspect erosion and sediment control measures to detect evidence of erosion and sedimentation. Promptly take corrective measures when necessary.
       5. If soil and debris from site accumulate in ditches or other low areas, remove accumulation and restore area to original condition.
    2. Site drainage:
       1. Maintain grades to ensure proper site drainage.
       2. Prevent surface water runoff from leaving the site except as otherwise provided by stormwater management plan.
       3. Prevent precipitation from infiltrating or from directly running off stockpiled materials. Cover stockpiled materials with an impermeable liner during periods of work stoppage including at end of each Working Day.
       4. Control surface drainage from cuts and fills, from borrow and waste disposal areas, from stockpiles, staging areas, and other work areas as required to prevent erosion and sedimentation.
       5. Control surface drainage by ensuring that gutters are kept open and water is not directed across or over pavements or sidewalks, except through pipes or properly constructed troughs. Ensure that runoff from unfinished areas is intercepted and diverted to suitable outlets.
    3. Plant protection and site clearing:
       1. Protect all existing trees and landscaping which is to remain at the Place of the Work, using methods and materials recommended by the Canadian Nursery Trades Association and as approved by the Consultant.
       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 2.4 m (8').
       3. Protect roots of designated trees to drip line during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
       4. Minimize stripping of topsoil and vegetation.
       5. Restrict tree removal to area indicated or designated by the Consultant.
    4. Work adjacent to waterways:
       1. Do not operate construction equipment in waterways.
       2. Do not use waterway beds for borrow material.
       3. Do not dump excavated fill, waste material or debris in waterways.
       4. Design and construct temporary crossings to minimize erosion to waterways.
       5. Do not skid logs or construction materials across waterways.
       6. Avoid indicated spawning beds when constructing temporary crossings of waterways.
       7. Do not blast under water or within 100 m (300') of indicated spawning beds.
       8. Contractor shall intercept sediment laden surface water run-off during construction operations and direct to silt traps prior to entry into waterways. No separate or direct payment will be issued for this Work.
    5. Dewatering:
       1. Provide temporary drainage and pumping as necessary to dewater excavations, trenches, foundations, and other parts of the Work. Maintain such areas free of water arising from groundwater or surface run-off, as required to keep them stable, dry, and protected from damage due to flooding.
       2. Maintain standby equipment necessary to ensure continuous operation of dewatering system.
       3. Do not pump water containing suspended materials or other harmful substances into waterways, sewers or surface drainage systems. Treat or dispose of such water in accordance with applicable regulatory requirements.
       4. Protect catch basins, drains, culverts and other points of entry into municipal storm water collection systems.
    6. Pollution control:
       1. Take measures to prevent contamination of soil, water, and atmosphere through uncontrolled discharge of noxious or toxic substances and other pollutants, potentially causing environmental damage.
       2. Be prepared, by maintaining appropriate materials, equipment, and trained personnel on site, to intercept, clean up, and dispose of spills or releases that may occur.
       3. Promptly report spills and releases that may occur to:
          1. Authority having Jurisdiction;
          2. Person causing or having control of pollution source, if known, and;
          3. Owner and Consultant.
       4. Contact manufacturer of pollutant, if known and applicable, to obtain safety data sheets (SDS) and ascertain hazards involved and precautions and measures required in cleanup or mitigating actions.
       5. Take immediate action to contain and mitigate harmful effects of the spill or release.
    7. Dust and particulate control:
       1. Implement and maintain dust and particulate control measures in accordance with applicable regulatory requirements.
       2. Execute Work by methods that minimize dust from construction operations and spreading of dust on site or to adjacent properties.
       3. Provide temporary enclosures to prevent extraneous materials resulting from sandblasting or similar operations from contaminating air beyond immediate work area.
       4. Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
       5. Use appropriate covers on trucks hauling fine, dusty, or loose materials.
    8. Noise control:
       1. Take measures to control noise and vibration generated by the Work.
       2. Comply with the requirements of Authorities having Jurisdiction and Noise Control By-Law, to ensure noise generated by the Work is not excessive and not disturbing to the Public and the Owner’s and User’s of adjacent buildings / properties.
       3. These requirements shall not be construed as cause for elimination or restriction of Contractor's working schedule, claims for delay of work nor additional costs.

## Snow removal

* + 1. Allow no accumulation of ice and snow within the Place of the Work. There shall be no use of salt for de-icing in areas of building work.
    2. Remove snow from access routes to the Work to maintain uninterrupted progress of the Work.

## Maintaining existing sewerage flows

* + 1. Maintain existing sanitary sewerage flows, where applicable, and provide alternative interim service utilizing duplicate portable sewage pumps, tank trucks and other approved means. Prevent interruption to service throughout the construction period and until the new works are placed in service.
    2. Provide and install all temporary sumps, bulkheads and/or other works in existing sewers, maintenance holes and service connections and provide temporary pumps in duplicate and pipelines to dewater and control the sewage.
    3. Discharge sewerage flows only to those sanitary sewers remaining in service or to tank trucks for approved disposal. Under no circumstances shall contaminated water be discharged or permitted to enter any drainage or natural watercourse.
    4. Temporarily drain or pump any leakage to permit work to be performed in the dry. The Contractor’s method shall be subject to the approval of the Consultant.

## Drainage ditches and storm sewers

* + 1. All ditches, drainage channels and/or storm sewer systems, which may be affected by construction shall have their flows maintained at all times during construction, unless permission to the contrary has been obtained from the Consultant. No extra cost shall be incurred by the Owner for this work.
       1. Make allowance in prices for any problems that may be encountered because of ditch flows or storm sewer flows. Drainage shall not be impeded, nor shall blockages or water backups be permitted. Any damage because of water or flooding shall be the responsibility of the Contractor.

**RoD SPEC NOTE:** Include the following article if a Designated Substance Survey has been provided on the Project. Delete when not required.

## Designated substances survey and reporting

* + 1. A Designated Substance Survey or Asbestos Survey is provided with the Contract Documents. Review the report for specific designated substances and locations.
    2. Comply with the governing Ministry of Labour regulations respecting protection of workers, removal, handling and disposition of any Designated Substances encountered in carrying out the Work proposed on this contract.
    3. Prior to commencement of this work, provide written notification to the Ministry of the Environment, Conservation and Parks at their York-Durham District Office, 230 Westney Rd. S., 5th floor, Ajax, Ontario L1S 7J5, of the location(s) proposed for disposal of Designated Substances. Provide a copy of the notification to the Consultant a minimum of two weeks in advance of such work starting.
    4. If the Ministry of the Environment, Conservation and Parks has concerns with any proposed disposal location, provide further notification until the Ministry’s concerns have been addressed.

# Products – not used

# Execution – not used

End of section