

ENVIRONMENTAL PROTECTION

PART 1 GENERAL**1.1 Description of Work**

1. Keeping site environmentally protected at all times.
2. Ensure all measures are in accordance with the specifications, drawings, and requirements of other authorities having jurisdiction.

1.2 Related Work

- .1 Section [01450](#) Quality Control & Inspection
- .2 Section [02231](#) Clearing & Grubbing
- .3 Section [02232](#) Tree Pruning
- .4 Section [02311](#) Site Grading
- .5 Section [02315](#) Excavation, Trenching & Backfilling
- .6 Section [02901](#) Tree & Shrub Preservation
- .7 Section [02911](#) Site Topsoil & Finish Grading

1.3 Fires

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

1.4 Protection

- .1 Prevent damage to fencing, trees, landscape, natural features, bench marks, existing buildings, existing pavement, surface or underground utility lines which are to remain, and to adjacent properties.
- .1 Erect siltation and sediment controls where indicated on the Contract Document drawings or as directed by the Consultant or other authorities having jurisdiction prior to construction. Maintain the controls during construction until the sodding or seeding phase is complete or as directed by the Consultant or other authorities having jurisdiction.

1.5 Disposal of Wastes

- .1 The Contractor agrees to assume full responsibility and cost to procure and obtain all permits and documentation necessary to effect the proper disposal of materials.
- .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.

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1.6 Drainage

- .1 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.
- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.7 Conservation

- .1 The Contractor shall take the necessary precautions to ensure construction activities are carried out with consideration given to the conservation of energy, water, and materials.

1.8 Plant Protection

- .1 Protect trees and plants on site and adjacent properties where indicated.
- .2 Wrap with tree protection fencing as per the City of Brampton Standard Detail (Wrap in burlap, trees and shrubs adjacent to construction Work, storage areas and access areas, and encase with protective wood framework from grade level to height to 2m).
- .3 Protect roots of designated trees beyond the 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 areas indicated or designated by the Consultant as indicated on Contract Document drawings.
- .6 Do not place surplus material over root systems within any protective fencing.
- .7 No contaminants will be dumped or flushed where feeder roots of trees exist, that is within 1.5 times the diameter of the tree's canopy.
- .8 Do not drive over any roots of trees or other vegetation. Any damage caused will be made good at the expense of the Contractor.

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1.9 Temporary Tree Protection Fencing

- .1 Existing trees shall be properly protected with temporary fencing as per the approved landscape plan and details until Substantial Performance of the work.
- .2 Maintain existing grade with fencing line of all trees to be preserved.
- .3 The area within the protected fencing shall remain undisturbed and free of debris, building materials and equipment.
- .4 Prune dead wood unless directed otherwise by the Consultant, do not prune leaders.
- .5 Trees, as determined by the Consultant, shall be borne by the Contractor. The species and size(s) must be as per the City of Brampton Standard.
- .6 38x38 mm T-bar posts shall be spaced at 1200mm o.c maximum with 1200mm high paige wire fence secured with wire ties, 300mm o.c.
- .7 100x100 mm square or 76 mm dia. round wood post every third post, wood to be pressure treated jack pine or cedar.

1.10 Fertilizing Existing Trees

- .1 The Work shall be carried out between April 15th and September 15th of the fiscal year.
- .2 The Contractor shall provide fertilizer as recommended by soil testing results and analysis, and as directed by the Consultant.
- .3 The Contractor shall use the product packaged in its original containers and prepare each tank in the presence of the Consultant.
- .4 The equipment to be used will have to be inspected and approved by the Consultant.
- .5 The Owner reserves the right to take samples of the mixture used, for analysis.

1.11 Work Adjacent to Waterways

- .1 Do not operate construction equipment in waterways unless otherwise approved by the appropriate Conservation Authority.

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- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Do not use skid logs or other sediment control structures as determined by appropriate Conservation Authority,
- .5 Avoid indicated spawning beds or other designated Environmentally Sensitive Areas as identified by the Ministry of Natural Resources and Forestry (MNRF) & Conservation Authorities when constructing temporary crossings of waterways.
- .6 Install silt-traps or other sediment control structures as determined by appropriate agencies.

1.12 Pollution Control

- .1 Maintain temporary erosion and pollution control features installed under this Contract.
- .2 Control emissions from equipment and plant to local authorities emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

END OF SECTION - 01561