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PART 1 - GENERAL

1.1 Description of Work

This Section includes but is not limited to the following:

- .1 All normal removals as required to complete the work.
- .2 All items to be verified by a site visit prior to submission of a tender. All available plans of the existing structure are available for viewing at the Project Manager's office, 2nd floor, 1713 Bedford Row, Halifax, N.S.
- .3 Any derricks, gas lines or buildings to be removed by others unless otherwise indicated.

1.2 Site Information

- .1 Results of prior soundings, soil borings and soil investigations may be available for inspection at offices of Public Works and Government Services Canada, P.O. Box 2247, 1713 Bedford Row 2nd Floor, Halifax, N.S. B3J 3C9
- .2 The Contractor will be responsible for making his own interpretation of soil conditions at any location, other than borehole locations. Borehole descriptions shown on the logs are only descriptive of conditions at locations described by boreholes themselves.

1.3 Related Work

- .1 Refer to other specification sections for related information.
- .2 Refer to **Section 01 33 00** for Shop Drawing/Submission requirements.

1.4 Submissions

- .1 Methodology:  
**Provide methodology for carrying out the work.**
- .2 **Provide submission in accordance with Section 01 33 00.**

1.5 Protection

- .1 Prevent movement, settlement or damage of adjacent structures. Provided bracing and shoring as required. In event of damage, immediately replace such items or make repairs to approval of *Departmental representative* and at no additional cost to *Departmental representative*.
- .3 All damage to existing structures, roadways, pipelines, electrical systems not specified for removal to be repaired at the Contractor's cost to the satisfaction of the *Departmental representative*.

1.5 Measurement for  
Payment

- .1 Sitework, demolition and removals will be measured in accordance with **Section 01 29 00.**

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

3.1 Preparation

- .1 Inspect site and verify with *Departmental representative* items designated for removal and items to be preserved.
- .2 Locate and protect utility lines. Preserve in operating condition active utilities traversing site.
- .3 Provide temporary power and lighting as shown on the plan or as required by the *Departmental representative*.
- .4 Existing fill and vent pipes, oil waste tanks and underground storage tanks to be protected from any damages. All repairs to damages as a result of Contractor's operations to be at his cost and to the satisfaction of the *Departmental representative*.

3.2 Removal

- .1 Remove items indicated.

.2 Do not disturb adjacent structures designated to remain in place.

.3 At end of each day's work, leave work in safe condition so no part is in danger of toppling or falling.

3.3 Restoration

.1 Upon completion of work, remove debris, trim surfaces and leave work site clean.

.2 Reinstate areas and existing works outside areas of sitework and removals, to conditions that existed prior to commencement of work.

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PART 1 - GENERAL

- 1.1 Description .1 This section specifies requirements for excavating and backfilling for electrical service installation.
- 1.2 Reference Standards .1 ASTM D698-91 (or latest edition) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft) - Method C.
- .2 AASHTO T99-94 (or latest edition) Moisture-Density Relations of Soils Using a 5.5-lb. Rammer
- 1.3 Related Work .1 Refer to other Specification Sections for related information.
- 1.4 Definitions .1 Rock excavation: excavation of material from solid masses of igneous, sedimentary or metamorphic rock which, prior to its removal, was integral with its parent mass, and boulders or rock fragments having individual volume in excess of 1.5 m<sup>3</sup>.
- .2 Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation including dense tills, hardpan, frozen materials and partially cemented materials such as asphalt which can be ripped and excavated with heavy construction equipment.
- 1.5 Protection of Existing Features .1 Existing buried utilities and structures:
- .1 Prior to commencing any excavation work, notify applicable owner or authorities, establish location and state of use of buried utilities and structures. Clearly mark such locations to prevent disturbance during work.
- .2 Existing buildings and surface features:

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|                                    | .1 | Protect existing buildings and surface features which may be affected by work from damage while work is in progress and repair damage resulting from work. |
| 1.6 <u>Shoring and Bracing</u>     | .1 | Comply with applicable local regulations to protect existing features.   |
| 1.7 <u>Samples</u>                 | .1 | At least 2 weeks prior to commencing work, inform <i>Departmental Representative</i> of proposed source of fill materials and provide access for sampling. |
| 1.8 <u>Measurement for Payment</u> | .1 | Work performed under this Section will be incidental to work involved in other sections of this specification.   |

PART 2 - PRODUCTS

PART 3 - EXECUTION

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| 3.1 <u>Site Preparation</u> | .1 | Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.   |
| 3.2 <u>Stockpiling</u>      | .1 | Stockpile fill materials in areas approved by <i>Departmental Representative</i> . Stockpile granular materials in manner to prevent segregation. |
| 3.3 <u>Dewatering</u>       | .1 | Keep excavations free of water while work is in progress.   |
|                             | .2 | Protect open excavations against flooding and damage due to surface run-off and tidal infiltration.   |
|                             | .3 | Dispose of water in a manner not detrimental to public and private property, or any portion of work completed or under construction.              |

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| 3.4 <u>Excavation</u>                  | .1    Excavate to lines, grades, elevations and dimensions indicted or as directed by <i>Departmental Representative</i> .<br>.2    Dispose of surplus and unsuitable excavated material in approved location off site.<br>.3    Do not obstruct flow of surface drainage or natural watercourses.<br>.4    Stockpile suitable excavated materials required for backfill in approved location.<br>.5    Dispose of surplus and unsuitable excavated material off site.  |
| 3.5 <u>Trench Bottom Preparation</u>   | .1    Where required due to removal of unsuitable material or unauthorized over-excavation bring bottom of excavation to design grade with approved material.<br>.2    Compact trench bottom to density at least equal to density of adjacent surrounding soil.   |
| 3.6 <u>Pre-Installation Inspection</u> | .1    Excavations require inspection and approval prior to commencement of installation operations.   |
| 3.7 <u>Backfilling</u>                 | .1    Do not proceed with backfilling operations until <i>Departmental Representative</i> has inspected and approved installations.<br>.2    Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.<br>.3    Do not use backfill material which is frozen or contains ice, snow or debris.<br>.4    Backfilling around installations:<br>.1    Place bedding and surround material as specified elsewhere.<br>.2    Place material by hand under, around, and over installations until 300 mm of cover is provided. Dumping material directly on installations will not be permitted. |
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- .5 Place backfill material in uniform layers not exceeding 150 mm in thickness up to subgrade elevation or top of trench. Compact each layer before placing succeeding layer.
  - .6 Compact common backfill materials:
    - .1 In non-pavement areas, to a density at least equal to density of adjacent, undisturbed soil.
    - .2 In pavement areas, compact to a minimum of 90% for cohesive soils and 95% for cohesionless soils of corrected maximum dry density, maximum density ASTM D698, AASHTO T99, Method C.
  - .7 Compact granular backfill material to a minimum 95% of corrected maximum dry density, maximum density AASHTO T99-74 (or latest edition), Method C.
  - .8 Compact using approved mechanical tamping devices, or by hand tamping to achieve specified compaction.
- 3.8 Restoration
- .1 Upon completion of work, remove surplus materials and debris and correct defects noted by *Departmental Representative*.
  - .2 Clean and reinstate areas affected by work as directed by *Departmental Representative*.