

Part 1 - General

1.01 Description

- .1 This Section is supplemental to OPSS.MUNI 517 and shall supersede conflicting specifications within OPSS.MUNI 517.

1.02 Related Specification

- .1 Construction Specification Section 01330 - Submittal Procedures
- .2 Construction Specification Section 01570 - Environmental Protection
- .3 Construction Specification Section 02314 - Tunnelling
- .4 Construction Specification Section 02315 - Trenching, Backfilling and Compacting
- .5 Construction Specification Section 02318 - Excavation, Backfilling and Compacting for Structures
- .6 Construction Specification Section 02319 - Pipe Boring and Jacking
- .7 OPSS.MUNI 517 - Construction Specification for Dewatering for Excavation
- .8 OPSS.MUNI 518 – Construction Specification for Control of Water from Dewatering Operations
- .9 OPSS.MUNI 902 – Excavation and Backfilling

1.03 Permits

- .1 Obtain permit from Ministry of the Environment, Conservation and Parks (MECP) Regional Office for taking water in excess of 50,000 litres per day from any ground water source.

1.04 Submittals

- .1 Name of Sub-Contractor proposed to complete the dewatering/ depressurization shall to be included in Form of Tender. Should Contractor name "By Own Forces", the Contractor shall indicate the proposed dewatering method and provide evidence as to being qualified to do dewatering.

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- .2 Submit general plan of proposed dewatering scheme and MECP Permit at least one month in advance of dewatering activities. The plan shall include but is not limited to showing the following:
 - .1 Location of generators or other noise producing equipment, including anticipated decibel levels.
 - .2 Distance between dewatering equipment and new/existing structures.
 - .3 Location of dewatering equipment in relation to the excavation.
 - .3 Review of the dewatering system by the Contract Administrator shall not relieve the Contractor of responsibility for the adequacy of the plan for supplying all labour, equipment and materials necessary for satisfactory dewatering of excavations.
 - .4 All drilled wells, drive points, boreholes and dewatering wells shall be constructed in accordance with Ont. Reg. 128/03.

1.05 Protection

- .1 Employ a Professional Engineer (P.Eng.) licensed to practice in the Province of Ontario to evaluate the possibility of uplift or settlement of any structure, pipeline or utilities. Inform the Contract Administrator of the possibility of uplift or settlement and take all necessary precautions to prevent uplift or settlement.
- .2 Protect all excavations against flooding and damage due to surface run off.
- .3 Obtain all required approvals from the MECP's Surface Water Branch and the local Conservation Authority for the discharge of pumped groundwater to nearby watercourses.
- .4 Follow all Ministry of Labour (MOL) regulations regarding work near hydro lines and gas utilities.
- .5 Employ services of a Professional Engineer (P.Eng.) or Professional Geoscientist (P.Geo.) licensed to practice in the Province of Ontario to identify all private domestic or other wells in close proximity to the construction dewatering/depressurization and to assess potential for impact on the quality or quantity of well water. Provide contingency plans for disruption of water supply to all neighbouring private or other wells.

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- .6 Protect structure excavations such that all excavations and removals for structural work are performed in the dry and all concrete and granular materials for the structure are placed in the dry.

1.06 Dewatering Specialist

- .1 Employ a professional dewatering specialist (Professional Engineer or Professional Geoscientist licensed to practice in the Province of Ontario) to design, construct and maintain all dewatering measures including treatment except trench sump operations to ensure all structures and pipes are constructed in the dry. If the Contractor chooses to use his own forces to perform dewatering, he shall provide evidence as to being qualified.
- .2 Dewatering Specialist shall be licensed by the MECP according to Ontario Regulation 128/03 if wells are to be drilled.

1.07 Basis of Payment

- .1 Payment for dewatering shall be included in price bid in the Form of Tender for construction of structure or pipeline, unless otherwise specified.
- .2 Include in price bid cost of all labour, plant and materials necessary for supply, installation, maintenance, operation and removal of dewatering scheme including piezometers, traffic control and construction of detour widening where required.

Part 2 - Products - Not Applicable.

Part 3 - Execution

3.01 Dewatering

- .1 Provide all labour, plant and materials necessary to keep excavations stable and free of water to a minimal of 1.0 m below invert of pipe while work is in progress. Use of stone below pipe bedding shall not replace proper dewatering procedures.
- .2 Provide stand-by equipment as necessary to ensure continued operation of dewatering system including treatment in case of breakdown of primary system.

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- .3 Insulate piping and fittings and provide shelter and heating as necessary to maintain dewatering system in operation.
 - .4 Where dewatering is recommended in the Geotechnical Report or ordered by the Contract Administrator, the Contractor, shall install piezometer well points/standpipes at regular intervals and establish that the groundwater table has been lowered to a minimum of 1.0 m below the adjacent pipe invert. Maintain piezometers in good working order throughout dewatering period. Failure to comply shall result in Contractor not being permitted to commence his operations.
 - .5 Discontinue ground water control in a manner so that disturbance of structure or pipeline is avoided.
 - .6 Continue groundwater monitoring program until the groundwater has returned to its original levels.
 - .7 Strictly adhere to all conditions identified in the MECP Permit. Prepare monitoring report and provide copy to the MECP and the Contract Administrator.
 - .8 Provide treatment as required and adhere to sewer use by-laws.

END OF SECTION