

TABLE OF CONTENTS

	DIVISION 02	
02315	Excavating Trenching and Backfilling for Utilities	2
02511	Water Service and Pipe Fittings	3

EXCAVATING, TRENCHING, AND BACKFILLING FOR UTILITIES

1. GENERAL

1.1 Work Included

- .1 Excavating, trenching and backfilling for utilities.
- .2 Installation of the new 150 mm flushing water service shall be by trenchless installation methods (directional drilling) and shall be conducted in a manner to prevent any impact on vehicular access and movement within the site.

1.2 References

- .1 The following specifications of The City of Winnipeg Standard Construction Specifications are applicable to the Work:
 - .1 Division 3 – Underground Works
 - .1 CW 2030-R7 Excavation, Bedding and Backfill
 - .2 Division 3 Standard Details – Underground Works
 - .1 SD-001 Standard Pipe Bedding
 - .2 SD-002 Standard Trench and Excavation Backfill
 - .3 SD-003 Jetting Nozzle Insertion Locations
 - .3 Division 3 Approved Products for Underground Works within the City of Winnipeg
 - .4 Division 4 – Surface Works
 - .1 CW 3510-R9 Sodding
 - .2 CW 3540-R5 Topsoil and Finish Grading for Establishment of Turf Areas
- .2 Measurement and payment clauses in The City of Winnipeg Standard Construction Specifications are not applicable to the Contract.

2. PRODUCTS

2.1 Materials

- .1 Products shall be as specified in CW 2030-R7.

3. EXECUTION

3.1 General

- .1 Do excavation, trenching and backfill to CW 2030.

EXCAVATING, TRENCHING, AND BACKFILLING FOR UTILITIES

- .2 Except as specifically noted on the construction drawings, backfill requirements are as follows:
 - .1 Beneath, or within 1 m of all existing and proposed pavements, structures or rail sub-grades: Class 2 Backfill.
 - .2 Within grassed areas, except as noted above: Class 4 Backfill.
 - .3 Where trenchless installation is specified, backfill shafts with the class of backfill noted on the construction drawings.
- .3 Stockpile material to be used for backfilling on-site as directed by the Contract Administrator. Excess material is to be disposed of immediately off-site.
- .4 All excavated or disturbed areas are to be restored to a condition better than or equivalent in accordance with B7 to original. Restore grassed areas to CW 3510-R9 and CW 3540-R5 and; Thirty Day Maintenance Period is not required.

END OF SECTION

WATER SERVICE PIPE AND FITTINGS

1. GENERAL

1.1 Work Included

- .1 Construction, flushing and leakage testing of new 150 mm flushing water service to the Soda Ash Silo.
- .2 Disconnection and abandonment of existing water service to the Soda Ash Silo.
- .3 Installation of the new 150 mm flushing water service shall be by trenchless installation methods (directional drilling) and shall be conducted in a manner to prevent any impact on vehicular access and movement within the site.

1.2 References

- .1 AWWA C900, Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution.
- .2 AWWA C907 Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water, Wastewater, and Reclaimed Water Service.
- .3 The following specifications of The City of Winnipeg Standard Construction Specifications are applicable to the Work:
 - .1 Division 3 – Underground Works:
 - .1 CW 2315-R7 Excavation, Trenching and Backfilling.
 - .2 CW 2110-R11 Watermains.
 - .3 CW 2125-R4 Flushing, Hydrostatic Leakage Testing and Disinfection of Watermains and Water Services.
 - .4 CW 2160-R7 Concrete Underground Structures and Works.
 - .2 Division 3 Standard Details – Underground Works:
 - .1 SD-001 Standard Pipe Bedding Classes.
 - .2 SD-002 Standard Trench and Excavation Backfill Classes.
 - .3 SD-003 Jetting Nozzle Insertion Locations.
 - .4 SD-004 Concrete Thrust Blocks for Horizontal Watermain Fittings.
 - .5 SD-005 Concrete Thrust Blocks for Vertical Watermain Fittings.
 - .6 SD-016 Standard Watermain Valve Installation.
 - .7 SD-018 Watermain and Water Service Insulation.

WATER SERVICE PIPE AND FITTINGS

.3 Division 3 Approved Products for Underground Works.

.4 Measurement and payment clauses in the above Specifications are not applicable to the Contract.

2. PRODUCTS

2.1 Materials

.1 Except as hereinafter specified, use only those Products listed as Approved Products for Underground Use in the City of Winnipeg.

2.2 Flushing Water Pipe

.1 150 mm diameter PVC pipe to AWWA C900, DR18.

2.3 Flushing Water Pipe Fittings

.1 150 mm diameter PVC pipe to AWWA C907, Class 150.

3. EXECUTION

3.1 Excavation, Bedding and Backfill

.1 Do excavation, bedding and backfill to Section 02315.

3.2 Installation

.1 Installation to CW 2110.

.2 Install pipes to the lines and grades shown on the Drawings.

.3 Insulate trenches to CW 2110, SD 018 where noted.

.4 Coordinate all shut downs with Contract Administrator and submit schedule for shut downs 14 days prior to Work.

.5 Operation of Valves:

.1 Valves and hydrants on existing watermains and on new flushing mains connected to the existing system are only to be operated by personnel from the Water Services Division of the Water and Waste Department.

.2 Schedule valve operations with Water Service Division a minimum 24 hours prior to the required shut down or turn on.

.3 Submit schedule of all valve operations to the Contract Administrator and maintain a record of all valve operations performed by the Water Services Division.

.6 Connection to the Existing System:

WATER SERVICE PIPE AND FITTINGS

- .1 Locate and confirm size and material of the existing watermain prior to making connection.
- .2 Submit schedule of connection to Contract Administrator 48 hours prior to Work.
- .3 Limit interruption of service during connection to a maximum of six hours.

3.3 Flushing and Testing

- .1 Perform flushing and hydrostatic leakage testing in accordance with CW 2125 but using flushing water. Pipe disinfection is not required.

3.4 Abandonment of Existing Water Service

- .1 Close any and all valves at supplying the existing potable water service to the Soda Ash Silo.
- .2 Disconnect existing potable water service at Soda Ash Silo.
- .3 Dewater entire length of service line and install Class 150 end cap with mechanical restraints.

END OF SECTION