

**PART E**  
**SPECIFICATIONS**

## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available in Adobe Acrobat (.pdf) format on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- E1.1.2 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
D-8473	Archibald Street – 7.5 m S of S PL Messier Street to 101.9 m N of N PL Messier Street
D-8474	Archibald Street – 101.9 m N of N PL of Messier Street to 227 m N of N PL Messier Street
D-8475	Archibald Street – 31 m N of S PL Plinguet Street to 132.65 m S of S PL Plinguet Street
D-8476	Beaverhill Boulevard – Burntwood Crescent to 16 m E of Park Grove Drive
D-8477	Hamel Avenue – Rue Aulneau to Rue Langevin
D-8478	Provencher Boulevard – Rue St. Jean Baptiste to 100 m E of Rue St. Jean Baptiste
D-8479	Provencher Boulevard – 100 m E of Rue St. Jean Baptiste to 154 m E of Rue St. Jean Baptiste
D-8480	Consol Avenue – Besant Street to 125 m E of W PL Besant Street
D-8481	Consol Avenue – 125 m E of W PL Besant Street to 70 m W of W PL Louelda Street
D-8482	Consol Avenue – 70 m W of W PL Louelda Street to Louelda Street

#### E2. PROVISIONAL ITEMS

- E2.1 The Provisional Items listed in the Schedule of Prices are a part of the Contract.
- E2.2 The Contractor shall not perform Work included in the Provisional Items without prior authorization from the Contract Administrator. All Work included in the Provisional Items will be carried out within the construction areas shown on the Drawings.
- E2.3 Notwithstanding GC:7, the City reserves the right to diminish all or any portion of the Items of Work listed in the Provisional Items and no claim shall be made for damages on grounds of loss of anticipated profit or for any other reason.

#### E3. CHANGE IN BACKFILL MATERIAL

- E3.1 Where directed by the Contract Administrator, the Contractor will be required to change the proposed class of backfill for the trenchless installation to either Class 3 or Class 1.
- E3.2 Change in backfill material will be measured and paid for in accordance with Clause 4.8 of CW 2030 and will include the disposal of excavated material.

#### **E4. ABANDONMENT OF EXISTING VALVE PITS**

##### **E4.1 Description**

E4.1.1 This Specification shall cover the abandonment of existing cast-in-place, reinforced concrete valve pits.

##### **E4.2 Construction Methods**

E4.2.1 Manhole frames and covers, valve box casings and risers shall be removed and set aside to determine if they are salvageable. The watermain pipe inside the pit shall be cut approximately 300 millimetres on either side of valves and valves removed. Both ends of the watermain pipe inside the pit shall be plugged with concrete to the satisfaction of the Contract Administrator. The pit walls and floor shall then be demolished to a minimum of 1500 millimetres below grade or as required for the new watermain installation and the remaining pit and excavation filled with Class 3 Backfill in accordance with CW 2030.

E4.2.2 Abandonment of the valve pit on Archibald shall include removal of the adjacent 400x400x300 tee and removal and replacement of up to 1.0 metre of pipe on either side of the tee.

E4.2.3 The Contractor shall load and deliver all valves and other material determined to be salvageable by the Contract Administrator, to the Water Services Division Yard located at 552 Plinguet Street and unload the valves and other material at the yard as directed by City personnel.

##### **E4.3 Measurement and Payment**

E4.3.1 Abandonment of existing valve pits shall be measured on a unit basis and paid for at the Contract Unit Price for "Abandonment of Existing Valve Pits". The number units to be paid for will be the total number of valve pits abandoned and backfilled in accordance with this specification, accepted and measured by the Contract Administrator.

E4.3.2 Further to E4.2.2, removal and replacement of up to 1.0 metre of pipe on either side of the tee including couplings is included in the Contract Unit Price for "Abandonment of Existing Valve Pits" and will not be measured for separate payment.

E4.3.3 Removal and replacement of pipe longer than 1.0 metre on either side of the original location of the removed tee will be measured and paid for in accordance with Clause 4.1 of CW 2110.

#### **E5. FIRE PROTECTION**

E5.1 Further to Clause 3.6 of CW 1120, arrange construction of the Work in such a way that fire protection service to 350 Archibald Street shall be maintained continuously until such time it is connected to the new watermain.

#### **E6. STREET LIGHT CABLE**

##### **E6.1 Construction Methods**

E6.1.1 At locations where street lighting cable is to be replaced as directed by the Contract Administrator, the Contractor shall, after completion of backfilling and grading of watermain trenches, construct a trench suitable for the placement of street lighting cable or install a 50 mm HDPE conduit by coring methods. The HDPE conduit will be supplied by the street lighting utility at no cost to the Contractor.

E6.1.2 The trench or cored pipe shall be constructed on the same alignment as the street light bases or as directed by the Contract Administrator. The bottom of the trench shall be

between 600 mm and 750 mm below the top of curb and shall be no more than 150 mm in width. The invert of cored pipe shall be 600 mm and 750 mm below the top of curb.

E6.1.3 The Contractor shall provide 48 hours notice to the Contract Administrator prior to the commencement of trenching or coring operations in order to allow coordination of the cable installation by the street lighting utility.

E6.1.4 Upon completion of cable installation by the street lighting utility the Contractor shall backfill, compact and grade the boulevard sections disturbed. Backfill shall be Class 4 Backfill in accordance with CW 2030-R5.

## E6.2 Method of Measurement and Payment

### E6.2.1 Street Light Cable Trenching

(a) Trenching for the installation of street lighting cable shall be measured on a linear metre basis based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable - Trenching", measured as specified herein which price shall be payment in full for performing all operations and supply all materials and all other items incidental to the work included in this specification.

### E6.2.2 Coring of HDPE Conduit

(a) The coring and installation of HDPE conduit shall be measured on a linear metre basis from shaft face to shaft face based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable - Coring of HDPE Conduit", measured as specified herein which price shall be payment in full for performing all operations and supplying all materials and all other items incidental to the work included in this specification.

## E7. SURFACE RESTORATIONS

E7.1 Further to Section 3.3 of CW 1130 of the General Requirements, permanent surface restorations including all sodding and pavement works for each renewal shall be completed within ten (10) working days from the date that the renewal is completed.

E7.2 Where excavations are to be restored with 24-hour early opening concrete. The Contractor shall make it his first priority to; backfill the excavation; pour the 24-hour concrete; where required, lay asphalt as soon as the 24 hour curing period is up and open the closed lane to traffic.

E7.3 Further to section 3.26 of CW 2110, excavations within pavements and sidewalks on Consol Street shall be left in a temporarily restored condition as follows.

E7.3.1 Pavement and Sidewalk – 50 millimetre thick asphalt patch in accordance with CW 3410.

E7.4 Maintain temporarily restored asphalt patches until the contractor for the pavement works commences work at the Site.

## E8. HYDRANT PROTECTION BOLLARDS

E8.1 Install bollards as shown on Drawing D-8475.

E8.2 Installation of bollards will be included with the hydrant assembly and will not be measured for separate payment.

## **E9. PROTECTION OF EXISTING TREES**

- E9.1 The Contractor shall take the following precautionary steps to avoid damage from his construction activities to existing boulevard trees within the limits of the construction area.
- E9.1.1 Do not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
- E9.1.2 Strap mature tree trunks with 25 x 150 x 2400 wood planks. Smaller trees shall be similarly protected using appropriately sized wood planks.
- E9.1.3 Excavations shall be carried out in a manner to minimize damage to existing root systems. Where roots must be cut to facilitate an excavation they shall be neatly pruned at the face of the excavation.
- E9.1.4 Work on site shall be carried out in a manner to minimize damage to existing tree branches. Where damage to tree branches does occur, the Contractor shall neatly prune the damaged branch.
- E9.1.5 American elm trees shall not be pruned between April 1<sup>st</sup> and August 1<sup>st</sup> and Siberian elm trees between April 1<sup>st</sup> and July 1<sup>st</sup> of any year under provisions of The Dutch Elm Disease Act.
- E9.2 All damage to existing trees due to the Contractor's construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Parks and Recreation Department, Forestry Branch.
- E9.3 No separate measurement or payment will be made for protection of trees.