

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:

Drawing Title	Drawing No.	File Name	Size
Cover Sheet and Location Plan	00	17-2004_Drawing_00-RO.pdf	A1
Riverwood Avenue - Woodgrove Street to Sta. 0+240	01	17-2004_Drawing_01-RO.pdf	A1
Riverwood Avenue - Sta. 0+240 to Wicklow Street	02	17-2004_Drawing_02-RO.pdf	A1
Combined Sewer Repairs-Brandon Avenue-60 m E. of Nassau Street to 70 m W. of Osborne Street	03	17-2004_Drawing_03-RO.pdf	11 x 17
Combined Sewer Repairs-Brandon Avenue-155 m E. of Nassau Street South to Osborne Street	04	17-2004_Drawing_04-RO.pdf	11 x 17
Wastewater Sewer Repairs-Riverside Drive-Sommerville Avenue to Windermere Avenue	05	17-2004_Drawing_05-RO.pdf	11 x 17
Wastewater Sewer Repairs-Riverwood Avenue-Woodgrove Street to 86 m W. of Wicklow Street	06	17-2004_Drawing_06-RO.pdf	11 x 17
Brandon Avenue	01-CTF002	17-2004_Drawing_07-RO.pdf	11"x17"
Dalhousie Drive	01-CTF003	17-2004_Drawing_08-RO.pdf	11"x17"
Riverside Drive	01-CTF004	17-2004_Drawing_09-RO.pdf	11"x17"
Silverstone Avenue	01-CTF005	17-2004_Drawing_10-RO.pdf	11"x17"

E2. SOILS INVESTIGATION REPORT

- E2.1 Test hole logs are provided for Riverwood Avenue and Riverside Drive to aid in the Contractor's evaluation of the existing pavement structure. The test hole logs are tabulated and can be found in Appendix A.

E3. OFFICE FACILITIES

- E3.1 The Contractor shall supply office facilities meeting the following requirements:
- The field office shall be for the exclusive use of the Contract Administrator.
 - The building shall be conveniently located near the site of the Work.

- (c) The building shall have a minimum floor area of 25 square metres, with two windows for cross ventilation and a door entrance with a suitable lock.
 - (d) The building shall be suitable for all weather use. It shall be equipped with a heater and air conditioner so that the room temperature can be maintained between 16-18°C and 24-25 °C.
 - (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
 - (f) The building shall be furnished with one desk, one drafting table, 3 m x 1.2 m table, one stool, one four-drawer legal size filing cabinet, and a minimum of 12 chairs.
 - (g) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.
 - (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when he deems it necessary.
- E3.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
- E3.3 The office facilities will be provided from the date of the commencement of the Work to the date the Contract is completed.
- E3.4 On a one time basis, where directed by the Contract Administrator, the Contractor shall relocate the office facilities to a location more convenient for the remaining Work.

E4. PROTECTION OF EXISTING TREES

- E4.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:
- a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
 - b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
 - c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
 - d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
 - e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E4.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his designate.

E4.3 No separate measurement or payment will be made for the protection of trees.

E4.4 Elm trees cannot be trimmed between April 1 and July 31, inclusive.

E5. TRAFFIC CONTROL

E5.1 Further to clauses 3.6 and 3.7 of CW 1130-R1:

- (a) Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. No measurement for payment will be made for this work.
- (b) In accordance with the Manual of Temporary Traffic Control, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Section of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Section of the City of Winnipeg in connection with the works undertaken by the Contractor.

E6. TRAFFIC MANAGEMENT

E6.1 Further to Clause 15 of the Standard Provisions, the Contractor shall be responsible for maintaining the following:

- (a) Riverwood Avenue and Brandon Avenue will be closed to all traffic during construction activities. The Contractor shall sign the street "Road Closed" in accordance with the Manual of Temporary Traffic Control. Brandon Avenue must be re-opened to local traffic by August 31, 2004.
- (b) Riverside Drive shall have at least one lane for local access traffic maintained during all stages of construction. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control.
- (c) Dalhousie Drive and Silverstone Avenue shall have at least 2 lanes open (one lane in each direction) for traffic maintained during all stages of construction. This includes current bus traffic.

E6.2 Should the Contractor be unable to maintain pedestrian or vehicular access to a residence or business, he shall review the planned disruption with the business or residence and the Contract Administrator, and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E6.3 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

E7. WATER USED BY CONTRACTOR

E7.1 Further to clause 3.7 of CW 1120-R1, the Contractor shall pay for all costs associated with obtaining water in accordance with the Waterworks By-law. Sewer charges will not be assessed for water obtained from a hydrant.

E8. SURFACE RESTORATIONS

E8.1 Further to clause 3.3 of CW 1130-R1, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not

completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E9. PROVINCE OF MANITOBA/CITY OF WINNIPEG INFRASTRUCTURE SIGNS

E9.1 The Canada/Manitoba Infrastructure Signs are available for pickup by the Contractor at the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount each sign securely onto a 1.2 metre x 2.4 metre sheet of 19 mm plywood and shall put up one sign at each street, using 100 mm x 100 mm posts, to the satisfaction of the Contract Administrator. At completion of the project, the Contractor shall remove and return the signs to the above address. There will be no measurement or payment for the above described works.

E10. GARBAGE/BLUE BOX PICK-UP

E10.1 The Contractor shall be responsible for ensuring that garbage and blue box pick-up is maintained during construction activities. The Contractor shall be responsible for determining garbage and blue box pick-up schedules for the various streets in order to coordinate his activities. Should construction activities not permit pick-up, the Contractor shall pick up individual house items and set up a "group" pick-up location that the garbage and blue box trucks can access. The Contractor is also responsible for returning individual garbage cans and blue boxes to their proper owners. There will be no measurement or payment for the above described works.

E11. INSTALLATION/ADJUSTMENT OF DRAINAGE APPURTENANCES

E11.1 Description

This Specification shall amend and supplement Specification CW 2130-R7 and CW 3210-R5.

- (a) Replace the reference to "shall conform with Specification CW 2410" in CW 3210-R5 clauses 5.3, 5.5 and 5.7.1 with "shall conform with those products listed as Approved Products for Underground Use in the City of Winnipeg found on the City of Winnipeg, Materials Management web site at: <http://www.city.winnipeg.mb.ca/matmgt/info.stm>"
- (b) Replace "SD-107" with "AP-007", "SD-104" with "AP-004", "SD-106" with "AP-005", "SD-108" with "AP-008/009", and "SD-109" with "AP-011", as they appear in CW 3210-R5 clauses 5.3, 5.5 and 5.6. In CW 3210-R5 clause 5.6 delete "and SD-111".

E11.2 Construction Methods

E11.2.1 Removal of Existing Pipes

Removal of existing pipes shall consist of existing catchbasin or curb inlet leads which are to be removed in order to facilitate the installation of new catchbasin or catch pits.

E11.3 Method of Measurement

E11.3.1 Removal of Existing Pipes

The removal of existing pipes by excavating, removing and disposing of existing pipe will be measured on a length basis. The length to be paid for shall be the total number of linear metres of pipe removed from the specified area measured horizontally at grade.

E11.4 Basis of Payment

E11.4.1 Removal of Existing Pipes

Removal of existing pipes will be paid for at the Contract Unit Price per linear metre for "Removal of Existing Pipes", which price shall be payment in full for the supply of all materials and for performing all operations required to complete the work as specified.

E12. RENEWAL OF EXISTING MISCELLANEOUS CONCRETE SLABS

E12.1 Description

This Specification shall amend and supplement Specification CW 3235-R3.

E12.2 Method of Measurement

E12.2.1 Removal of Precast Sidewalk Blocks

Removal of existing precast sidewalk blocks in boulevard including stockpiling (Note: Winnipeg Transit may decide to keep patio blocks) or disposal will be measured on a unit basis. The number to be paid for shall be the total number of precast sidewalk blocks removed in accordance with this Specification and accepted by the Contract Administrator.

E12.3 Basis of Payment

E12.3.1 Removal of Precast Sidewalk Blocks

Removal of existing precast sidewalk blocks will be paid for at the Contract Unit Price per unit for the "Removal of Precast Sidewalk Blocks" measured as specified herein, which price shall be payment in full for performing all operations herein described and all other items incidental to the work included in this Specification.

E13. ADJUSTMENT OF EXISTING MTS MANHOLES

E13.1 Description

E13.1.1 This Specification shall amend and supplement Specification CW 3210-R5. "Owner" shall refer to Manitoba Telecom Services (MTS), who is responsible for the manhole to be adjusted.

E13.2 Materials

E13.2.1 Manhole Frames and Covers

All frames and covers shall be supplied by the Owner.

E13.2.2 Cast Iron Lifter Ring Inserts

All cast iron lifter rings shall be supplied by the Owner.

E13.2.3 Concrete for Underground Works

As per CW 3210-R5, Clause 5.7

E13.2.4 Concrete Brick

As per CW 3210-R5, Clause 5.8

E13.2.5 Unshrinkable Fill

As per CW 3210-R5, Clause 5.9

E13.2.6 Miscellaneous Materials
 As per CW 3210-R5, Clause 5.10

E13.3 Construction Methods

E13.3.1 Responsibility of Contractor

Upon commencement of construction activities, it shall be the responsibility of the Contractor to ensure that no materials are damaged as a result of his construction activities. Materials found damaged, missing or lost after the commencement of construction activities shall be repaired or replaced by the Contractor at his own expense to the Satisfaction of the Contract Administrator.

E13.3.2 Adjustment of Existing Manhole

As per CW 3210-R5, Clause 9.2 except that paragraph 4 is deleted.

E13.3.3 Installation of Cast Iron Lifter Ring Inserts

Cast iron lifter ring inserts of variable heights shall be supplied by the Owner and installed by the Contractor where specified on the Drawings or where otherwise directed by the Contract Administrator.

The installation of the lifter ring(s) shall be considered to include all work incidental to the removal of the existing cover, the cleaning of the frame, the installation of the required number of lifter ring inserts into the cover opening, and the reinstallation of the cover on top of the lifter ring insert.

E13.3.4 Disposal of Material

As per CW 3210-R5, Clause 9.12

E13.4 Method of Measurement

E13.4.1 Manhole Frames and Covers

No measurement will be made.

E13.4.2 Cast Iron Lifter Ring Inserts

No measurement will be made.

E13.4.3 Adjustment of Existing MTS Manhole Frames

The adjustment of existing MTS manhole frames will be measured on a unit basis. The number to be paid for shall be the total number of manholes adjusted in accordance with this Specification and accepted by the Contract Administrator.

E13.5 Basis of Payment

E13.5.1 Manhole Frames and Covers

No payment will be made for manhole frames and covers. They will be supplied by the Owner at no cost to the Contractor.

E13.5.2 Cast Iron Lifter Ring Inserts

No payment will be made for cast iron lifter ring inserts. They will be supplied by the Owner at no cost to the Contractor.

E13.5.3 Adjustment of Existing MTS Manhole Frames

The adjustment of existing MTS manhole frames will be paid for at the Contract Unit Price for "Adjustment of Existing MTS Manhole Frames", measured as specified herein, which

price shall be payment in full for performing all operations herein described and all other items incidental to the work included in this Specification.