

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 |
|--|--------------------|------------------------------|-------------|
| 2004 ALLEY RENEWALS COVER SHEET. | | 259-2004 _Drawing_00-R0.pdf | 349 |
| PORTAGE AVENUE SOUTH LANE- BORROWMAN PLACE TO MARYLAND ST. | 01 | 259-2004 _Drawing_01-R0.pdf | 276 |
| KNAPPEN/BROADWAY LANE- MARYLAND ST. TO HONEYMAN AVE. STA 0+62.6 TO STA 2+00 | 02 | 259-2004 _Drawing_02-R0.pdf | 455 |
| KNAPPEN/BROADWAY LANE- MARYLAND ST. TO HONEYMAN AVE. STA 0+93.6 TO STA 1+70.52 | 03 | 259-2004 _Drawing_03 -R0.pdf | 310 |
| BALTIMORE/OAKWOOD LANE- OSBORNE WEST LANE TO HAY ST. STA 1+00 TO STA 2+25 | 04 | 259-2004 _Drawing_04 -R0.pdf | 227 |
| BALTIMORE/OAKWOOD LANE- OSBORNE WEST LANE TO HAY ST. STA 2+25 TO STA 2+89.13 | 05 | 259-2004 _Drawing_05 -R0.pdf | 186 |
| BROADWAY SOUTH LANE- CARLTON ST. TO HARGRAVE ST. | 06 | 259-2004 _Drawing_06 -R0.pdf | 283 |
| CARLTON/HARGRAVE LANE- BROADWAY AVE. SOUTH LANE TO ASSINIBOINE AVE. STA1+00 TO STA 2+50 | 07 | 259-2004 _Drawing_07 -R0.pdf | 263 |

| Drawing Title | Drawing No. | File Name | Size |
|---|--------------------|------------------------------|-------------|
| CARLTON/HARGRAVE LANE- BROADWAY AVE SOUTH LANE TO ASSINIBOINE AVENUE STA 2+50 TO STA 3+55.88 | 08 | 259-2004 _Drawing_08 -R0.pdf | 247 |
| FORT STREET EAST LANE- ST MARYS AVENUE TO 70M SOUTH OF ST. MARY AVENUE | 09 | 259-2004 _Drawing_09 -R0.pdf | 203 |
| MONTROSE/WAVERLEY LANE- CORYDON AVENUE TO GROSVENOR AVENUE STA 94.60 TO STA 2+25 | 10 | 259-2004 _Drawing_10 -R0.pdf | 248 |
| MONTROSE/WAVERLEY LANE- CORYDON AVENUE TO GROSVENOR AVENUE STA 2+25 TO STA3+75 | 11 | 259-2004 _Drawing_11 -R0.pdf | 256 |
| MONTROSE/WAVERLEY LANE- CORYDON AVENUE TO GROSVENOR AVENUE STA 3+75 TO STA 4+71.62 | 12 | 259-2004 _Drawing_12 -R0.pdf | 217 |

E2. PROTECTION OF EXISTING TREES

- E2.1 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.

E2.2 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.

E2.3 No separate measurement or payment will be made for the protection of trees.

E2.4 Elm trees cannot be trimmed between April 1 and July 31, inclusive.

E3. TRAFFIC CONTROL

E3.1 Further to clauses 3.6 and 3.7 of CW 1130-R1:

- (a) 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.

E4. TRAFFIC MANAGEMENT

E4.1 Further to clause 3.7 of CW 1130-R1:

- (a) The alley shall be closed to traffic, according to specified phasing. The Contractor shall sign the alley "Alley Closed" in accordance with the Manual of Temporary Traffic Control.

E4.2 Intersecting street access shall be maintained at all times.

E4.3 The Contractor shall provide a minimum of 48 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access. The Contractor shall provide temporary access ramps, as practicable, to minimize the disruption of traffic to commercial properties affected by the construction activities according to the Alternative Access Plan (see E5).

E4.4 Construction shall be staged such that backfilling with sub-base material immediately follows excavation and underground works. Excavations shall be filled to the design top of sub-base elevations at the end of each working day.

E5. ALTERNATIVE ACCESS PLAN

E5.1 Locations

E5.1.1 Portage Avenue South Alley: Portage Avenue South Alley between Borrowman Place and Maryland Street shall be reconstructed in two phases when Gordon High School is out of session.

- (a) Phase One- Construction will begin at Borrowman Street and continue to station 1+50. Access at Borrowman Street will be maintained adjacent to the construction to serve the northern side of the alley. Slight modification of fencing may be required to provide adequate accessibility.
- (b) Phase Two-Construction will continue from station 1+50 to Maryland Street. Borrowman Place will resume full access; vehicles will be permitted to travel through parking lots to reach eastern access location adjacent to the alley.

E5.1.2 Broadway Avenue South Alley: Carlton Street to Hargrave Street & Carlton/Hargrave Alley and the Broadway Avenue South Alley to Assiniboine Avenue will be constructed in three phases.

- (a) Phase One- Construction of Broadway Avenue South Alley from Carlton Street to Hargrave Street and the first 50 meters of the intersecting Carlton/Hargrave Alley will require alternative access in two locations.
 - (i) South of the alley on Carlton Street access will be created requiring modification of the boulevard, fencing, electrical, and parking stalls to provide access to parking lots south of the alley. The temporary access will be located at the south end of the parking lot.
 - (ii) South of the alley on Hargrave Street access will be created requiring modification of the boulevard and parking stalls to provide access to parking lots south of the alley.
- (b) Phase Two- Construction will continue from phase one south to the parkade entrance divider (located at station 2+88). During this phase alternative access will be created through use of existing access to the alley. Parking stall locations may be modified to assist in reaching necessary locations.
 - (i) The parkade (located at station 2+88) will be modified by demolition of the wall to provide angled entry and exit from the alley during phase two and three. All vehicles entering and exiting the parkade must access it by entering from Assiniboine Avenue. The wall will need to be reconstructed at the completion of the alley.
 - (ii) The contractor may provide a written alternative method for access/egress to the parkade. The alternative method must be approved by the Contract Administrator one week prior to construction.
- (c) Phase Three- Construction will continue from phase two to Assiniboine Avenue. Due to limited width at this portion of the alley some parking may be displaced along the western side. Existing access to Hargrave Street on the east will continue to provide access. All vehicles may enter and exit the parkade using the finished phase two portion of the alley.

E5.1.3 Fort Street East Alley: St. Mary Avenue to 70m South of St. Mary Avenue will be renewed in one phase.

- (a) Alternative access from St. Mary Avenue will provide access to the eastern side of the alley. This will require boulevard alteration and minimal movement of existing concrete parking logs. If access is not granted due to property owners the alley will require two phase construction.

E5.2 Measurement and Payment

E5.2.1 The work required for alternative access to all alleys is incidental.

E5.2.1 The Contractor may provide written alternatives for phasing on any site. The alternative method must be approved by the Contract Administrator one week prior to construction.

E6. PEDESTRIAN SAFETY

E6.1 Any excavation left open or exposed overnight, over a weekend or for any length of time unattended shall have full and adequate safety precautions provided. These precautions shall include but not be limited to covering the excavation with timber planks or steel plates and erecting a barricade completely around the excavation complete with signing in accordance with Manual of Temporary Traffic Control

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. VERIFICATION OF WEIGHTS

E9.1 All Material which is paid for on a weight basis shall be weighed on a scale certified by Consumer & Corporate Affairs, Canada.

E9.1.1 All weight tickets shall have the gross weight and the time and date of weighing printed by an approved electro/mechanical printer coupled to the scale.

E9.1.2 The tare weight and net weight may either be hand written or machine printed. All weights, scales and procedures shall be subject to inspection and verification by the Contract Administrator. Such inspection and verification may include, but shall not be limited to:

- (a) checking Contractor's scales for Consumer & Corporate Affairs certification seals;
- (b) observing weighing procedures;
- (c) random checking of either gross or tare weights by having such trucks or truck/trailer(s) combinations as the Contract Administrator shall select weighed at the nearest available certified scale;
- (d) checking tare weights shown on delivery tickets against a current tare.

E9.2 The Contractor shall ensure that each truck or truck/trailer(s) combination delivering Material which is paid for on a weight basis carries a tare not more than one (1) month old.

E9.2.3 The tare shall be obtained by weighing the truck or truck/trailer(s) combination on a certified scale and shall show:

- (a) upon which scale the truck or truck/trailer(s) combination was weighed;
- (b) the mechanically printed tare weight;
- (c) the license number(s) of the truck and trailer(s);
- (d) the time and date of weighing.

E10. TRUCK WEIGHT LIMITS

E10.1 The City shall not pay for any portion of Material which results in the vehicle exceeding the maximum gross vehicle weight allowed under *The City of Winnipeg Traffic By-Law*, unless such vehicle is operating under special permit.

E11. ADJACENT SURFACE RESTORATIONS

E11.1 Description

- E11.1.1 This Specification shall cover the preparation of, operations relating to the reconstruction of areas adjacent to the alley pavement work. These adjacent areas include, but are not limited to, garage pads, parking lots and buildings.
- E11.1.2 The work to be done by the contractor under this Specification shall include the supply of all materials, and the furnishing of all superintendence, overhead, labour, equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all work as hereinafter described.
- E11.2 Definitions
 - E11.2.1 Definitions for the construction of concrete pavements are included in Section 2 of CW 3310-R8.
 - E11.2.2 Definitions for the construction of asphaltic pavements are included in Section 8 of CW 3410-R5.
- E11.3 Materials
 - E11.3.1 Construction methods for granular surfacing shall follow Section 2 of CW 3150-R3.
 - E11.3.2 Materials for the construction of concrete pavements shall follow Section 5 of CW 3310-R8.
 - E11.3.3 Materials for the construction of asphaltic pavements shall follow Section 5 of CW 3410-R5
- E11.4 Design Requirements
 - E11.4.1 Design requirements for the construction of concrete pavements shall follow Section 6 of CW 3310-R8.
 - E11.4.2 Design Requirements for the asphaltic concrete paving mix shall follow Section 6 of CW 3410-R5.
- E11.5 Supply of Materials
 - E11.5.1 The supply of materials for the construction of concrete pavements shall follow Section 7 of CW 3310-R8.
 - E11.5.2 The supply of asphaltic concrete paving mix for the construction of asphaltic pavements shall follow Section 7 of CW 3410-R5.
- E11.6 Equipment
 - E11.6.1 Equipment for the construction of concrete pavements shall follow Section 8 of CW 3310-R8.
 - E11.6.2 Equipment for the construction of asphaltic pavements shall follow Section 8 of CW 3410-R5.
- E11.7 Construction Methods
 - E11.7.1 Construction methods for granular surfacing shall follow Section 3 of CW 3150-R3.
 - E11.7.2 Construction methods for the construction of concrete pavements shall follow Section 9 of CW 3310-R8.
 - E11.7.3 Construction methods for the construction of asphaltic pavements shall follow Section 9 of CW 3410-R5.
- E11.8 Quality Control

- E11.8.1 Quality control for the construction of concrete pavements shall follow Section 10 of CW 3310-R8.
- E11.8.2 Quality control for the construction of asphaltic pavements shall follow Section 10 of CW 3410-R5.
- E11.9 Method of Measurement
- E11.9.1 Measurement for the construction of concrete pavements shall follow Section 12 of CW 3310-R8.
- E11.9.2 Measurement for the construction of asphaltic pavements shall follow Section 12 of CW 3410-R5.
- E11.10 Basis of Payment
- E11.10.1 Granular surfacing material will be paid for at the Contract Unit Price per cubic meter for "Replacement of Existing Gravel Surface" measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.
- E11.10.2 Construction of concrete pavements will be paid for at the Contract Unit Price per square meter for "Replacement of Existing Concrete Surface" measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.
- E11.10.3 Construction of asphaltic pavements will be paid for at the Contract Unit Price per square meter for "Replacement of Existing Asphalt Surface" measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.

E12. CAST IRON LIFTER RING INSERTS

- E12.1 This Specification shall amend CW 3210-R5.
- E12.2 Add the following to clause 9.4 'Installation of Cast Iron Lifter Ring Inserts':
- "From the ring heights available, the Contractor shall use the minimum number of rings to adjust the catchbasin/manhole to the proposed finished grade elevation."
- E12.3 Rings for MTS and Manitoba Hydro manholes are to be supplied by others. The contractor is to advise the Contract Administrator 72 hours prior to requiring the rings for installation. No cost for installation will be provided and is considered to be incidental to the work

E13. REFUSE AND RECYCLING PICK-UP

- E13.1 Refuse and recycling pick-up must be maintained. The Contractor shall relocate bins as required and coordinate work with collection crews. This work is incidental to the project.

E14. DAMAGE TO EXISTING STRUCTURES AND PROPERTY

- E14.1 Further to Clause 3.13 "Damage to Existing Structures and Property" of CW 1130-R1, take care to avoid damage to existing adjacent structures and properties during the course of the work.