

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 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.3 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>
B-01	Typical Bollards

E2. GENERAL WORK REQUIREMENT

- E2.1 The Contractor shall provide concrete repairs and paving in accordance with the requirements hereinafter specified.
- E2.2 A number of City Departments or Branches, mainly Planning, Property and Development, Public Works, Water and Waste, and Fire Paramedic Departments require concrete pavement on such items as parking lots, driveways, wading pools, side walks, and drainage channels. The intent of this specification is to hire a concrete contractor for the 2004/2005 season to carry out all concrete repairs in accordance to the Standard Construction Specifications of the City of Winnipeg (Works and Operations Division).
- E2.3 Because many of these projects are small, a mobilization cost shall be provided for each Site in addition to unit costs. In the case of employee parking lots, it may be more convenient for the contractor to complete this Work after 5:00 p.m. It is anticipated that each department will contact the successful contractor individually with a list of repair projects and visit each work Site with the foreman to mark out area of Work. It will also be the responsibility of each department to confirm quantities, provide inspection and process payment. After the initial repair lists are completed this summer, additional Work may be authorized in the fall.
- E2.4 It is anticipated that some Work orders may be issued by May 2004 and Work is to start immediately or when weather permits.

- E2.5 The Contractor should be familiar with the City of Winnipeg Standard Construction Specifications and shall have a proven track record in concrete paving along with equipment and men at their disposal.
- E2.6 The City of Winnipeg Standard Construction Specifications are to be strictly adhered to at all times, however method of payment will be as stated on Form B Prices. Contractor shall provide weight tickets from authorized scales for items paid for by weight methods (see E18 and E19).
- E2.7 Note: Contractor's invoice must include breakdown of prices as per Form B: Prices showing the various units along with associated scale tickets used for each Site. Lump sum invoicing will not be honoured for payment. Contractor must submit a copy of breakdown of prices to the Contract Administrator. (Note Invoice should be submitted to requesting Department.)
- E2.8 These specifications are intended for patching and paving of small areas.
- E2.9 All concrete on this contract shall be 30MPa normal redi-mix Portland cement concrete, 5% to 7% air, 100mm slump and reinforced with #10 reinforcing at 400mm on center both ways.

E3. MOBILIZATION

- E3.1 This cost is to be paid to the contractor on a per Site repair. This cost covers initial visit to the Site and for bringing the necessary equipment and men to the Site. There will only be one payment per Site regardless if contractor has to return to the Site to complete Work remaining from a previous day or to clean up deficiencies.

E4. REMOVAL OF CONCRETE PAYMENT

- E4.1 In areas as designated by the City the Contractor shall saw cut the deteriorated concrete to one half the slab depth and remove the concrete and 150mm of the subgrade. The broken concrete and subgrade shall be removed off Site at the Contractor's expense. The removal of the concrete will cover demolition of concrete of various thickness plus the excavation of the subgrade.
- E4.2 The Work under this Section covers saw cutting edges (in the case of isolated patches), breaking up of the concrete, removal of the concrete, excavation of 150mm of the subgrade and disposal of the excess material. Payment shall be based on field measurements as measured by the Contract Administrator or his designate to the nearest 0.5 square metres.
- E4.3 In areas where no concrete exists and a new pavement will be required, the Contractor will be paid a separate price per square metre for excavation and removal of subgrade material under Item 4 on the Form B: Prices.

E5. REINFORCED CONCRETE PAVEMENT

- E5.1 Work under this Section covers compaction of subgrade, supply and installation of 150mm granular base, reinforcing and concrete. All concrete shall be City of Winnipeg standard 30MPa redi-mix concrete and reinforcing shall be a minimum of #10 reinforcing at 400mm both ways. All material and construction shall be based on the City of Winnipeg Construction Specifications.
- E5.2 All new concrete shall be saw cut to match existing joints and these saw cuts and construction joints shall be sealed in accordance with the requirements of Specification CW3310. Saw cutting and sealing for new construction is incidental to Work under this Section.
- E5.3 The Work covered under this Section does not cover supply and installation of epoxy coated tie bars, which are paid as a separate item.

E5.4 Payment for this Work under this item is based on field measurements for the various concrete thickness as shown in the Form B: Prices. These measurements will be taken by the Contract Administrator or his designate to the nearest 0.5 square metre.

E6. UNI-STONE PAVING AND BASE

E6.1 In some areas the City may want uni-stone walkways installed. Work under this Section covers excavation, supply 300mm of limestone base, compaction, sand bedding, precast retaining curbs and installation of standard uni-stone pavers according to Specification CW3330-R2.

E6.2 Payment shall be made on the basis of field measurements by the Contract Administrator for uni-stone paving to the nearest 0.5 square meters.

E7. REMOVAL AND REPLACEMENT OF CONCRETE CURBS

E7.1 In areas where curb requires replacing the Contractor shall demolish the existing curb and construction of new curbs according to Specification CW3240-R1 and Drawings SD-205 and SD-206.

E7.2 Payment for demolition and new construction shall be based on lineal measurements.

E8. ROUTING AND SEALING CONCRETE PAVING

E8.1 This unit covers repairs of routing and repairing asphalt or concrete in driveways, and parking lots as per CW3250-R2. This Work covers routing and sealing joints in concrete pavement where pavement has cracked or where old sealant has failed.

E8.2 Payment shall be on a lineal measurement.

E9. INSTALLATION OF #15M TIE BARS

E9.1 In areas where concrete patches are being made adjacent to existing concrete, the Contract Administrator may request tie bars installed to provide a mechanical connection. The tie bars shall be 15mm epoxy coated reinforcing 750mm long. Spacing shall be at 900mm or as directed by the Contract Administrator. All Work shall be carried out according to Specification CW3220 and Drawing SD-214A.

E9.2 Payment shall be on a unit basis for drilling, grouting, supply and installation for each bar.

E10. SUPPLY AND PLACE BASE COURSE

E10.1 This unit covers supply and placing granular base course or 3/4" limestone base material in areas of deep excavation or as a finish surface where concrete or interlocking pavers is not to be the finished surface. Contractor should note that the 150mm base provided under all concrete or the 300mm base under uni-stone paving is covered under another Section. This unit is for areas where extra base is requested.

E10.2 Compaction shall be by means of vibrating mechanical compactors in lifts not to exceed 150mm.

E10.3 Payment shall be based on scale weight basis or on an estimated volume for partial loads.

E11. LABOUR COMPLETE WITH HAND TOOLS

E11.1 In certain circumstances the Work assigned may require additional labour. This labour shall include the cost of an experienced cement finisher complete with hand tools such as shovels,

skill saw, hammer, sledge hammer, trowel, wheelbarrow, broom, concrete drill and transportation.

E11.2 Payment for this Work will be on an hourly basis per man-hour. If material other than shown on the Form B: Prices is ordered, then payment shall be on the basis of 10% over invoice price.

E12. SUPPLY AND INSTALL PRECAST PARKING CURBS

E12.1 This item applies to supply and installing a new eight-foot (8') long standard precast curbs. Installation shall consist of driving into 2 #15 x 24 inch reinforcing rods into the subgrade. In the case of replacing of existing curbs, the Contractor shall remove and dispose of deteriorated curbs.

E12.2 Payment for this Work shall be on a unit basis for each curb.

E13. SUPPLY AND INSTALLATION OF "ASR" CURBS

E13.1 This item applies to supply and installation of new 8"x5¼"x8' "ASR" (recycled Auto Shredder Residue) curbs such as "Impact-Curb" manufactured by X Potential Products (204)224-3933 or approved equal curbs shall be installed according to manufacturer's instructions. In the case of replacing existing curbs, the contractor shall remove and dispose of deteriorated curbs.

E13.2 Payment for this Work shall be on a unit basis per curb.

E14. RELOCATION OF EXISTING PRECAST CURBS

E14.1 This item applies to the relocation of existing precast curbs (on the same Site). This includes pulling out (or driving into the ground at least 3 inches below the surface) the existing dowels, moving the curb to the new location and installing 3 #15 x 18 inch steel dowels. These dowels are to be predrilled into the concrete or asphalt.

E14.2 Payment for this Work shall be on a unit basis for each curb.

E15. 4 INCH DIAMETER STEEL BOLLARDS

E15.1 Supply and install 4 inch inside diameter steel bollards set in concrete as detailed. The steel bollard is to be filled and capped with concrete. Once the concrete is set the bollard shall receive 1 coat red oxide primer and 1 coat bright yellow enamel paint.

E15.2 Payment for this Work shall be on a unit basis.

E16. 4 INCH DIAMETER PLASTIC BOLLARDS

E16.1 The Contractor shall supply and install 4-inch diameter x 42-inch high plastic bollards as detailed. The bollards shall be MAXI-POST #42 DM (new No. 001) as sold by Airmaster Traffic Supplies or approved equal. These bollards are supplied complete with stainless steel clamp and cast aluminium base. To prevent the plastic from snapping at the base the Contractor shall install a 1 1/2"Ø x 4-foot standard steel pipe as detailed.

E16.2 Payment for this Work shall be on a unit basis for each bollard.

E17. SODDING

E17.1 In small areas the City will require the removal of the existing grass surface (usually by excavation or rototilling) and the installation of new topsoil and sodding. All material and

construction shall be based on the City of Winnipeg Standard Construction Specifications CW3510-R4 or latest revision.

E17.2 Payment for this Work is on a unit area basis, based on field measurements taken by the Contract Administrator and calculated to the nearest 0.5 square metres.

E18. VERIFICATION OF WEIGHTS

E18.1 All products, which are paid for on a weight basis, shall be weighed on a scale certified by Consumer & Corporate Affairs, Canada.

E18.2 All weigh tickets shall have the gross weight and the time and date of weighing printed by an approved electro/mechanical printer coupled to the scale.

E18.3 The tare weight and net weight may either be hand written or machine printed.

E18.4 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 contractors scales for Consumer & Corporate Affairs certification seals.
- (b) observing weighing procedures.
- (c) random checking of either gross or tare weights by having such trucks 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 (not more than one month old) to be carried in all trucks delivering weight measured materials to City of Winnipeg projects.

E18.5 It shall be the truck owner's responsibility to obtain this tare and keep it current. This tare shall be obtained by weighing the truck or truck/trailer(s) combination on a certified scale and shall show:

- (a) which scale the truck was weighed on
- (b) the mechanically printed tare weight
- (c) the licence number (s) of the truck and trailer(s)
- (d) the time and date of weighing

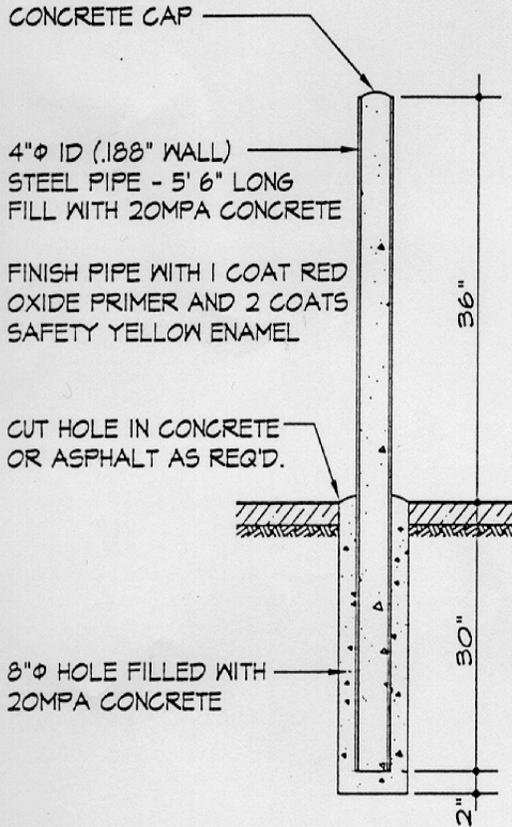
E18.6 No charge shall be made to the City for any delays or loss of production caused by such inspection and verification.

E18.7 Arrangements for the use of independent scales shall be made by the Contract Administrator and shall be at no cost to the Contractor.

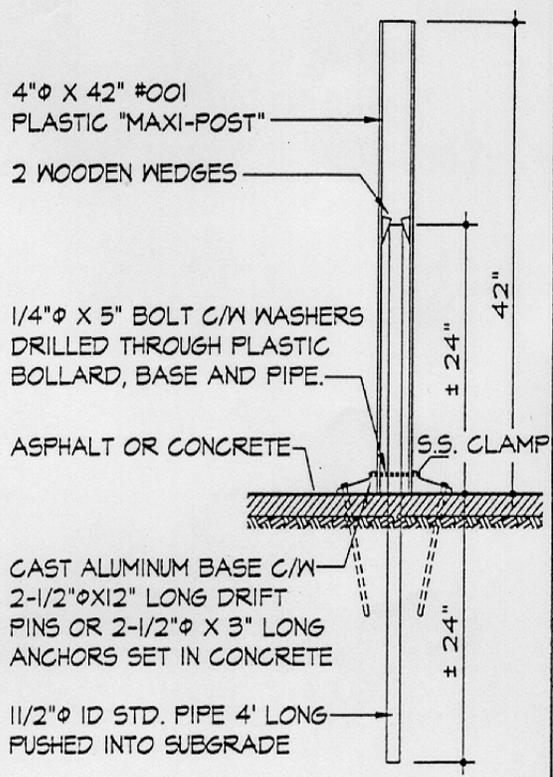
E19. TRUCK WEIGHT LIMITS

E19.1 The Contractor is reminded of weight restrictions of vehicles included in the City of Winnipeg Traffic By-Law.

E19.2 The Contractor is advised that there will be no payment for any portion of a commodity, which results in the vehicle exceeding the allowable gross vehicle weight for that vehicle, unless such vehicle is operating under special permit.



TYPICAL STEEL BOLLARD



TYPICAL PLASTIC BOLLARD



THE CITY OF WINNIPEG
 CIVIC BUILDINGS DEPARTMENT
 400-180 KING STREET

PROJECT		SHEET TITLE			
CONCRETE REPAIRS		TYPICAL BOLLARDS			
DRAWN BY	CHECKED BY	APPROVED BY	DATE	SCALE	PROJECT/SHEET NO.
RH	RC		FEB. 1994		