



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 483-2006

HARBOURVIEW SOUTH PARK REFURBISHMENT

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PART B - BIDDING PROCEDURES

B1. PROJECT TITLE

B1.1 HARBOURVIEW SOUTH PARK REFURBISHMENT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, August 4, 2006.

B2.2 Bid Submissions determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B3.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. ADDENDA

B4.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B4.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B4.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

B4.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B4.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B5. SUBSTITUTES

- B5.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B5.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B5.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B5.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B5.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B5.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B5.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B5.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B5.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative shall base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.
- B5.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B6. BID SUBMISSION

- B6.1 The Bid Submission consists of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Form G1: Bid Bond and Agreement to Bond, or
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or
a certified cheque or draft;
- B6.2 All components of the Bid Submission shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely in ink, to constitute a responsive Bid.
- B6.3 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B6.3.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B6.4 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B6.5 Bid Submissions shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Branch
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B7. BID

- B7.1 The Bidder shall complete Form A: Bid, making all required entries.
- B7.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B7.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B7.2.
- B7.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B7.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;

- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B7.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.

B7.4.2 All signatures shall be original and shall be witnessed except where a corporate seal has been affixed.

B7.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid Submission and the Contract, when awarded, shall be both joint and several.

B8. PRICES

B8.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B8.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B8.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B9. QUALIFICATION

B9.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
- (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
- (c) be financially capable of carrying out the terms of the Contract;
- (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
- (e) have successfully carried out work, similar in nature, scope and value to the Work;
- (f) employ only Subcontractors who:
 - (i) are responsible and not suspended, debarred or in default of any obligation to the City (a list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>); and
 - (ii) have successfully carried out work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, and are fully capable of performing the Work required to be done in accordance with the terms of the Contract;
- (g) have a written workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba);

- B9.2 The Bidder shall be prepared to submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B9.3 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B10. BID SECURITY

- B10.1 The Bidder shall provide bid security in the form of:
- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
 - (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.
- B10.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B10.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B10.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B10.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B10.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.
- B10.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

- B11.1 Bid Submissions will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.
- B11.1.1 Bidders or their representatives may attend.
 - B11.1.2 Bid Submissions determined by the Manager of Materials, or his designate, to not include the bid security specified in B10 will not be read out.
- B11.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at

The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

- B11.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B11.4 The Bidder is advised that any information contained in any Bid Submission may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B12. IRREVOCABLE BID

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B12.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B13. WITHDRAWAL OF BIDS

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding GC:23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B13.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials shall:
- (a) retain the Bid Submission until after the Submission Deadline has elapsed;
 - (b) open the Bid Submission to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B14. EVALUATION OF BIDS

- B14.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);

- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B9 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B5.

B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements if the interests of the City so require.

B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid Submission or in other information required to be submitted, that he is responsible and qualified.

B14.4 Further to B14.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B14.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

B14.5 Further to B14.1(c) the Total Bid Price shall be the total Bid Price shown on Form B: Prices adjusted, if necessary as follows:

- (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provisions for the work, no adjustment will be made to the total bid price; or
- (b) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Prices of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by deleting items 8, 14, 13 and 11, in that order on Form B: Prices and the award will be based on the adjusted Total Bid Price.

B15. AWARD OF CONTRACT

B15.1 The City will give notice of the award of the Contract by way of a letter of intent, or will give notice that no award will be made.

B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.

B15.2.1 Without limiting the generality of B15.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Work;
- (b) the prices are materially in excess of the prices received for similar work in the past;
- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B15.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid.

PART C - GENERAL CONDITIONS

C1. GENERAL CONDITIONS

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

- D1.1 In addition to the *General Conditions for Construction Contracts*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out “The City of Winnipeg Act” wherever it appears in the General Conditions and substituting “The City of Winnipeg Charter”.
- D1.3 The General Conditions are amended by striking out “Tender Package” wherever it appears in the General Conditions and substituting “Bid Opportunity”.
- D1.4 The General Conditions are amended by striking out “Tender Submission” wherever it appears in the General Conditions and substituting “Bid Submission”.
- D1.5 The General Conditions are amended by deleting GC:6.16 and GC:6.17. The City of Winnipeg is now within the jurisdiction of the Manitoba Ombudsman pursuant to The Ombudsman Act.

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of the removal and replacement of the existing play structure and bases, redevelopment of the limestone pathway and asphalt court and the supply and installation of trees.
- D2.2 The major components of the Work are as follows:
- (a) Removal of existing playstructure, concrete bases and sand
 - (b) Refurbishment of existing playground edger
 - (c) Supply and installation of playground equipment
 - (d) Supply and installation of limestone pathway
 - (e) Resurface existing asphalt courts
 - (f) Supply and installation of site furniture
 - (g) Supply and installation of plant material
 - (h) Supply and installation of sod

D3. CONTRACT ADMINISTRATOR

- D3.1 The Contract Administrator is McGowan Russell Group, represented by:
- Ms. Jackie Wilkie
Senior Landscape Architect
200-120 Fort St. Winnipeg, R3C 1C7
Telephone No. (204) 956-0396
Facsimile No. (204) 956-1265
- D3.2 At the pre-construction meeting, Ms Wilkie will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4. CONTRACTOR'S SUPERVISOR

- D4.1 At the pre-construction meeting, the Contractor shall identify his designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5. NOTICES

- D5.1 Except as provided for in GC:23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.
- D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

The City of Winnipeg
Chief Administrative Officer Secretariat
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174

- D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

The City of Winnipeg
Corporate Services Department
Legal Services Division
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

D6. FURNISHING OF DOCUMENTS

- D6.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him at cost.

SUBMISSIONS

D7. INSURANCE

- D7.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) all inclusive, with The City of Winnipeg being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations

endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;

D7.2 Deductibles shall be borne by the Contractor.

D7.3 The Contractor shall provide the City Solicitor with a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in GC:4.1 for the return of the executed Contract.

D7.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

D8. PERFORMANCE SECURITY

D8.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D8.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D8.2 If the bid security provided in his Bid Submission was not a certified cheque or draft pursuant to B10.1(c), the Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in GC:4.1 for the return of the executed Contract.

D9. SUBCONTRACTOR LIST

D9.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract.

SCHEDULE OF WORK

D10. COMMENCEMENT

D10.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

D10.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:

- (i) evidence that the Contractor is in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba;
 - (ii) evidence of the workers compensation coverage specified in GC:6.14;
 - (iii) evidence of the insurance specified in D7;
 - (iv) the performance security specified in D8;
 - (v) the Subcontractor list specified in D9; and
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D10.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D11. SUBSTANTIAL PERFORMANCE

D11.1 The Contractor shall achieve Substantial Performance within Thirty Five (35) consecutive Working Days of the commencement of the Work as specified in D10.

D11.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D11.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D12. TOTAL PERFORMANCE

D12.1 The Contractor shall achieve Total Performance within Forty (40) consecutive Working Days of the commencement of the Work as specified in D10.

D12.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D12.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D13. LIQUIDATED DAMAGES

D13.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City Five Hundred dollars (\$500.00) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D13.2 The amount specified for liquidated damages in D13.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

D13.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D14. SCHEDULED MAINTENANCE

D14.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

(a) Maintenance of Trees as specified in E22;

D14.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D15. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D15.1 Further to GC:6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

WARRANTY

D16. WARRANTY

D16.1 Notwithstanding GC:13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to GC:13.2.1 or GC:13.2.2, in which case it shall expire when provided for thereunder.

D16.2 Notwithstanding GC:13.2 or D16.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

- (a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use; or
- (b) site furniture or portions of play components are scheduled for delivery to site after the expected number of working days.

D16.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in GC:13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND
(See D8)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee dated the

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 483-2006

HARBOURVIEW SOUTH PARK REFURBISHMENT

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20____ .

SIGNED AND SEALED
in the presence of:

(Witness)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D8)

(Date)

The City of Winnipeg
Corporate Services Department
Legal Services Division
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 483-2006
HARBOURVIEW SOUTH PARK REFURBISHMENT

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding in the aggregate

Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

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 on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch 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 Name/Title</u>
L1	Layout and Planting Plan

E2. PROTECTION OF EXISTING TREES

- E2.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities.
- All trees will have a 3m radius protective zone calculated from the circumference at the base of the trunk which will remain free of digging, trenching, grade changes, stock piling of materials and soil compaction, except as minimum to construct swales, throughout the duration of the Contract. Protective fencing around these areas is required.
 - Trees within and immediately adjacent to proposed construction areas and those identified to be at risk by the Contract Administrator, will require 25 x 100 x 2400mm' wood planks strapped to the tree trunk to completely protect the tree trunk from impact damage. (Smaller trees will be similarly protected using proportionally sized wood planks.)
 - 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 3m 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. They must be properly trimmed with sharp tools to prevent crushing or being pulled up by construction equipment. No paint is required. All exposed roots must be mulched until the excavated area is filled with clean earth to avoid exposure to sunlight and desiccation.
 - 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.
 - 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 Auguring under existing trees will be the only acceptable method of underground installations. Any other excavations must be approved by the Forestry Branch.

E3. PROTECTION OF SURVEY INFRASTRUCTURE

- E3.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions: Current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.
- E3.2 Further to GC:6.28 (g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 986-4826 (8:00 am to 4:00 pm Monday to Friday excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E3.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.
- E3.4 Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction, that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.
- E3.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any Protection of survey infrastructure payments to be made by the City to the Contractor.

E4. STAKES AND MARKS

- E4.1 Further to GC:6.28(h), the Contractor will mark, to the extent he determines to be necessary, the location, alignment and elevation of the Work by means of stakes or marks, for review and approval by Contract Administrator. The Contractor shall make the completed Works conform to the lines and marks thus approved and indicated.
- E4.2 The Contractor shall notify the Contract Administrator immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.
- E4.3 Before commencing Work, the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City on account of any alleged inaccuracies. If any error is suspected in the Drawings, Specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.
- E4.4 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks

E5. WATER USED BY CONTRACTOR

E5.1 Notwithstanding CW 1120.3.7:

E5.2 Water for use by the Contractor may be obtained from the City of Winnipeg waterworks system.

E5.3 Should the Contractor wish to obtain water from a City hydrant, he shall make application either in person or by phoning the Permits Clerk at 986-3184 (8:30 am to 4:30 pm Monday to Friday excluding holidays). The Contractor shall advise the Permits Clerk of the hydrant he wishes to use. The Water Services Divisions of the Water and Waste Department will inspect the hydrant to ensure that the location is suitable and that the hydrant is in good working condition. If the requested hydrant is found to be unacceptable, arrangements will be made for the use of an alternate hydrant.

E5.4 When the application has been approved, the Permits Clerk will contact the Contractor and issue the permit. The permit may not be issued the same day the application is made. The Contractor shall obtain the permit for hydrant use from the Customer Services Division of the Public Works Department, 107-1155 Pacific Avenue. Permit fees will be charged in accordance with the latest version of the Waterworks By-law. All water used shall be metered and protected against contamination by the use of approved backflow prevention devices. The City will rent the meter to the Contractor at the rate established by the Waterworks By-law. The Contractor shall provide a lockable box, piping, valves, and backflow prevention equipment in accordance with Waterwork's guidelines. The backflow preventer(s) must be tested by a plumber licensed to test backflow preventers. The Permits Clerk can provide a list of licensed plumbers and additional information on the requirements for obtaining a use of hydrant permit.

E5.5 The Contractor shall pay for all water used in accordance with the Waterworks By-law. Sewer charges will not be assessed for water obtained from a hydrant.

E6. SURFACE RESTORATIONS

E6.1 The Contractor shall temporarily repair any Work commenced and not completed in the 2006 construction season 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.

E7. TEMPORARY RELOCATION OF AFFECTED STRUCTURES

E7.1 The Contractor shall temporarily relocate any portable structure such as benches, waste receptacles, picnic benches, etc., which will interfere with the construction of the Work and are not identified as items to be relocated. The Contractor Administrator will identify the temporary locations for the portable structures. Following the completion of the applicable Work the Contractor shall replace the structures to the locations designated by the Contract Administrator. These relocations shall be considered incidental to the associated Works and no separate measurement for payment will be made.

E8. TRUCK WEIGHT LIMITS

E8.1 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.

E9. ACCESS

- E9.1 All access is to be on the designated routes through the Site. These routes will be determined at the Pre-Construction Meeting.
- E9.2 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E9.3 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property. The Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress in maintained to private properties while he is working near them. Any damage caused by the negligence of the Contractor or his Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.
- E9.4 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the cost of which shall be borne entirely by the Contractor.

E10. SITE CONDITION

- E10.1 The Contractor shall examine the Site and make themselves familiar with the existing conditions (both above and below grade) and nature of Work to be done.
- E10.2 Surface and sub-surface conditions shown on the Drawings and included herein are provided for general information and variations there from shall not affect the terms of the Contract.
- E10.3 The Contractor shall set all necessary control lines, benchmarks, survey, elevation stakes and layout in accordance with the individual Site conditions and in consultation with the Contract Administrator.

E11. EXISTING UNDERGROUND SERVICES

- E11.1 The Contractor's attention is drawn to the existing underground lines or services that may be located in the area of the Work.
- E11.2 The Contractor shall take all necessary precautions when performing the Work to ensure that no damage is done to these existing services.
- E11.3 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface, shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.
- E11.4 All costs in connection with this item including location of the existing service, repairs to any existing services damaged by the construction operation, etc. shall be included in the unit prices bid for supply and installation of the items included under this Contract.
- E11.5 The Contractor will be required to make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.

E11.6 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

E12. PRODUCT APPROVALS

E12.1 The Contractor shall, following award, prepare a complete list of all material to be used on the project and submit the list to the Contract Administrator seventy two (72) hours prior to start of construction.

E12.2 The Contractor shall only use material which has been approved by Specification CW3710-R1 or by the Contract Administrator. The list shall provide the product, the manufacturer and the supplier.

E12.3 Other than required to be done by the Contractor under the Work of this contract, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing plant material, pavements, streets, roads, boulevard, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from the Contractor Administrator, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the Contract Administrator and the costs of which shall be borne entirely by the Contractor.

E12.4 All workmanship and materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator. The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of the Specifications.

E12.5 The Contractor shall wholly be responsible for the supply, safe storage, and handling of all materials set forth in this specification, and the control of all operations incidental thereto notwithstanding any inspection or approval that may have been previously given.

E13. DAMAGE TO STREETS AND STRUCTURES

E13.1 The Contractor is to be advised of the following existing Site features to be retained and protected to the City of Winnipeg Standards:

- | | | |
|-------------|-----------------------------|-----------------|
| a) trees | e) light standards | i) hydro poles |
| b) curbs | f) fire hydrants | j) catch basins |
| c) sidewalk | g) street signs | k) curb inlets |
| d) sod | h) all underground services | l) fences |

E14. PERMITS, NOTICES, LICENCES, CERTIFICATIONS, LAWS, AND RULES

E14.1 The Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.

E14.2 The Site Development Permits (including lot grading and damage deposits) will be obtained and paid for by the City of Winnipeg Planning, Property and Development Department prior to commencement of construction. A copy of this permit will be provided to the Contractor upon award of Contract.

E14.3 The Contractor shall comply with all laws, ordinances, rules, and regulations that would relate to the Works.

E15. EXCAVATION, REMOVALS, SUBGRADE COMPACTION AND ROUGH GRADING

- E15.1 This specification is supplemental to CW 3110 and CW 3170. The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the excavation and related Work including, but not necessarily confined to, the following:
- (a) Excavation, removals, disposal, subgrade compaction and rough grading of the existing Site for the construction of limestone pathways sodded areas and play spaces to the design requirements noted on the Drawings, approved on Site by the Contract Administrator, less the appropriate surface finish allowance.
 - (b) Stockpile suitable, approved material on Site for reuse (clean topsoil, clean earth fill and gravel fill). Remove and dispose of unsuitable material.
 - (c) Earthwork and Grading of the existing Site (cut and fill including compaction of subgrade and fill material) to ensure positive drainage in all paved areas, swales and adjacent sodded areas.
 - (d) Supply and install imported fill in areas as required to ensure positive drainage.
 - (e) Sawcut, remove and dispose of existing timber edger sections.
 - (f) Rebuild section of timber edger
 - (g) Excavate and remove all sand from play areas.
 - (h) Remove and dispose of existing play equipment and concrete bases as per the drawings.
 - (i) Remove, salvage and reinstall site furniture.
 - (j) Remove and deliver basketball pole footings. Fill all holes.
 - (k) Remove, salvage and reinstall chain link fence as required for asphalt paving.

Materials

- E15.2 All fill materials shall conform to CW 3170-R3

Construction Methods

- E15.3 The Contractor shall construct the Site within the limits indicated to the design elevations and gradients noted on the Drawings, less the appropriate surface treatment depths specified and shall excavate, remove and dispose of all unsuitable materials of whatever nature encountered.
- E15.4 The Contractor shall construct all sub-grades in accordance with Specification CW 3110. Excavation will be performed as per Item 9.1 of CW 3110. The Contractor shall remove existing pavement in accordance with 9.2 of CW 3110. Unsuitable Excavated material shall be disposed of as per Item 9.3 of CW 3110. All surplus material will be disposed of in accordance with Item 9.3 of CW 3110.
- E15.5 The Contractor shall restrict his activities strictly to within the limits of the Work, unless receiving prior written approval from the Contract Administrator. The Contractor shall take all precautions to prevent damage to traffic structures, pole lines, existing trees, Site services and adjacent property and he shall be liable for any damages occurring in the performance of this Work.
- E15.6 The Contractor shall examine the Site and make themselves familiar with the existing conditions and the nature of the Work to be done.
- E15.7 Prevent damage to surface or underground utility lines which are to remain. Make good any damage.

- E15.8 The Contractor shall excavate to the design grades shown less the appropriate allowance for surface treatment and shall excavate, remove and dispose of all unsuitable materials of whatever nature encountered.
- E15.9 Excavated or graded materials to be approved before use as fill for grading Work. Protect such approved material from contamination. Stockpile in approved locations on Site. Protection and stockpiling are incidental to unit prices bid for excavation, removals and rough grading.
- E15.10 All foundations shall be removed to full depth to the satisfaction of the Contract Administrator. Fill all holes resulting from removals with compacted clay fill in sodded and playground areas and compacted granular fill in paved areas.
- E15.11 The Contractor shall excavate topsoil as per CW 3170-R3 Section 9.2. Topsoil excavation is incidental to the unit prices bid for excavation, removal and rough grading.
- E15.12 The Contractor shall ensure that upon completion of the removal operations the Site is left in a neat condition free from debris, etc. for approval by the Contract Administrator prior to placing base courses and clean fill.
- E15.13 Except for drainage swales, berms and embankments indicated, the design gradient for all other areas shall be considered to be straight grade between the design elevations shown. Changes in grade at swales, berms, embankments and field shall be gently contoured as directed by the Contract Administrator to provide future ease of grass mowing operation.
- E15.14 In fill areas, where the difference between the existing grade elevation and the design elevation is less than 300mm the Contractor shall scarify the existing ground to a minimum depth of 150mm prior to placement of any fill.
- E15.15 The Contractor is advised that there may be useable topsoil, clay and gravel fill on Site. All suitable material will be reviewed and approved by the Contract Administrator and then re-used on Site. The re-use of this material on Site may reduce the quantity of imported topsoil, gravel and clean earth fill required. The Contractor shall re-use existing Site material prior to delivering new material to Site.
- E15.16 No direct payment will be made for placing and grading of existing fill as all costs for this Work shall be incidental to the unit prices bid in this contract.
- E15.17 Compaction shall include the use of sheep's foot or other suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 100% Standard Proctor Density below Precast Plaza Elements, 98% Standard Proctor Density below all paved areas, and 95% Standard Proctor Density in all other areas disturbed under this Contract.
- E15.18 The Contractor shall construct the sub-grade surface to the following depths below the grades shown on the Drawings for each area:
- (a) Limestone Path 250mm
 - (b) Playground area 250mm min.
- E15.19 The Contractor is advised that all excavations, removals, disposal, rough grading, compaction and related Work for construction of crushed limestone pathway and playground stone areas shall be incidental to the unit prices bid for each item as listed in the schedule of prices.
- E15.20 Following earth moving, rough grading and compaction the Work areas shall be fine graded to provide a maximum deviation of 50mm in 10 metres from the design grade with no low areas to hold water. The finished surface of all disturbed areas shall be dragged and smoothed in such a manner that there are no loose soil particles greater than 50mm in maximum dimensions.
- E15.21 Remove and stockpile existing benches as per the drawings.

- E15.22 Remove and stockpile chain link mesh on fence around tennis courts for reinstallation. Only remove sections required for reconstruction of asphalt paving. All fence posts to remain. Repair fence as required. All work is incidental to the unit prices bid for resurface existing asphalt courts.
- E15.23 Remove and dispose of existing play equipment. Remove existing timbers as required, all safety surfacing and concrete foundations. Fill holes with clean earth fill and compact to 98% SPD. Removal of existing sand safety surfacing is incidental to the unit prices bid for installation of playground stone.
- E15.24 Remove section of existing play area as shown on plans including timber edging and safety surfacing. Fill area as required to meet subgrade for topsoil and sod.
- E15.25 Stockpile usable pieces of timber edger for construction of new edge and repair of existing. Where no timber is reusable supply and install new timber stained to match existing. Match existing installation detail.
- E15.26 If required and at locations directed by the Contract Administrator, the Contractor shall excavate and remove unsuitable subgrade material and replace it with compacted granular material in accordance with Specification CW3110.

Method of Measurement

- E15.27 Removal of existing play equipment and concrete bases shall be measured on a lump sum basis in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.
- E15.28 Removal of play area and edger shall be measured on a lump sum basis in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.
- E15.29 Removal of existing edger shall be measured on a linear metre basis. The numbers to be paid shall be the total number of lineal metres removed in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.
- E15.30 Removal, stockpile and reinstallation of existing bench shall be measured on a per unit basis. The numbers to be paid shall be the total number of units relocated in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.
- E15.31 Rebuilding section of existing timber edger shall be measured on a linear metre basis. The numbers to be paid shall be the total number of lineal metres rebuilt in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.

Basis of Payment

- E15.32 Removal of existing play equipment and concrete bases will be paid for at the contract lump sum price for "Remove existing play structures and concrete bases" 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.
- E15.33 Removal of existing play area will be paid for at the contract lump sum price for "Remove section of existing play area and edger" 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.
- E15.34 Removal of existing edger will be paid for at the contract unit price per lineal metre for "Remove and dispose of section of existing edger" 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.

E15.35 Removal, stockpile and reinstallation of existing bench will be paid for at the contract unit price for "Relocate existing bench" 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.

E15.36 Rebuilding of existing edger will be paid for at the contract unit price per lineal metre for "Rebuild of section of existing edger" 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.

E16. MATCHING EXISTING GRADES

E16.1 Wherever the proposed paving, or sod meets existing building edge, doorway, or property line, the Contractor shall construct the proposed element to an acceptable grade, as directed by the Contract Administrator, to ensure that proper drainage and accessibility are maintained.

E17. ASPHALT PAVING AND PAINTED LINES

E17.1 The work of this section comprises the furnishing of all labour, equipment and materials required to complete the resurfacing of the existing asphalt courts and painting of court lines as shown on the drawings and as hereinafter specified.

E17.2 The existing asphalt is to be stripped from the tennis and basket courts as shown on the drawings. The base is to be inspected for compliance with City of Winnipeg Standards and Specifications.

E17.3 Where the base is found to be unacceptable the Contractor shall excavate and remove the base material and subgrade as required to provide a minimum 300mm depth compacted limestone base. Limestone base material is to meet City of Winnipeg specifications CW3110. All work is incidental to unit prices bid for this contract.

E17.4 Existing concrete bases for tennis nets and fence posts to remain. Ensure final grade of asphalt matches grade of concrete bases.

E17.5 Asphalt paving to be minimum 75mm depth. All work and materials to CW3410.

E17.6 Line painting to be done upon completion of asphalt paving work and curing time. All lines are to be to regulation play standards for tennis and basketball.

E17.7 No markings shall be performed when the temperature is below 10⁰ Celsius nor during rainfall or fog, or until the surface is perfectly dry. No markings shall be done if, in the opinion of the site supervisor, the conditions are not conducive to provide a top quality result.

E17.8 Immediately before application of the paint, the existing surface shall be dry and entirely free from dirt, grease, oil acids, laitance, or other foreign matter which would reduce the bond between the coat of paint and the asphalt/concrete. The surface shall be thoroughly cleaned by sweeping and blowing as required to remove all dirt, laitance and loose materials.

E17.9 Suitable chalkline layouts of proposed lines and arcs shall be spotted in advance of the paint application. Control points shall be spaced at such intervals as will ensure accurate location of all markings.

- E17.10 When discrepancies between the drawings and the field layout occur, these discrepancies are to be reported to the Contract Administrator for further action before proceeding with the application of paint.
- E17.11 The contractor shall provide an experienced technician to supervise the location, alignment, layout, dimension, and application of the paint.
- E17.12 Paint shall be applied at a rate of 200 lineal feet per gallon (60m per 4.5L) and maintain a uniform lines unless otherwise indicated on specifications drawings.
- E17.13 The paint shall be mixed in accordance with the manufacturer's instructions before application. The paint shall be thoroughly mixed and applied to the surface of the concrete with the marking machine. The surface shall receive two (2) coats, the first coat shall be thoroughly dry before the second coat is applied.
- E17.14 The paint applicator to be an approved pressure type mobile distributor capable of applying paint in single or double and dashed lines, and that will ensure uniform application and having a positive shut-off.
- E17.15 In the application of straight strips, any deviation in the edges exceeding 1/2 inch in 50 feet shall be obliterated and the marking corrected. The width of the markings shall be as designated within a tolerance of 5 percent. All paintings shall be performed to the satisfaction of the Contract Administrator by competent and experienced equipment operators, labourers, and artisans in a neat and workmanlike manner.
- E17.16 Thoroughly clean distribution tank before refilling with paint of different colour.
- E17.17 After application of the paint, all markings shall be protected while the paint is drying. The fresh paint shall be protected from injury or damage of any kind. The contractor shall be directly responsible and shall erect or place suitable warning signs, flags, or barricades, protective screens, or coverings as required. All surfaces shall be protected from disfiguration by spatter, splashes, spillage drippings, of paint or other materials.

Method of Measurement

- E17.18 Resurfacing of existing asphalt courts shall be measured on an area basis. The numbers to be paid shall be the total number of square metres resurfaced in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.
- E17.19 Line painting shall be measured on a lump sum basis in accordance with the Drawings and Specifications and as measure and accepted by the Contract Administrator.

Basis of Payment

- E17.20 Resurfacing of existing asphalt courts will be paid for at the contract square metre price for "Resurface existing asphalt courts" 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.
- E17.21 Line painting will be paid for at the contract lump sum price for "Line painting for tennis and basketball courts" 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.

E18. CRUSHED LIMESTONE PATHWAY

Description

E18.1 Further to CW 3410 and CW 3110 the Work of this section comprises the furnishing of all labour, equipment and materials incidental and required to complete the construction of limestone pathway as shown on the drawings and as hereinafter specified, including but not necessarily confined to:

- (a) Redevelopment of existing limestone pathway.
- (b) Construction of crushed limestone pathway, including supply and installation of base courses as shown on the Drawings.

Related Work

E18.2 Excavation, Removals and Site Grading

E18.3 Topsoil & Finish Grading

E18.4 If materials have been tested by an independent testing laboratory within previous 2 months and have successfully passed tests equal to requirements of this specification, submit test certificates from testing laboratory showing suitability of materials for this project.

Materials

E18.5 Crushed granular material to meet the following requirements:

- (a) All Materials supplied under this Specification shall be of a type approved by the Contract Administrator and shall be subject to inspection and testing by the Contract Administrator;
- (b) Crushed limestone consisting of hard, durable, angular particles, free from clay lumps, cementation, organic material, frozen material and other deleterious materials.
- (c) Granular Levelling Course - Gradations to be within limits specified below when tested to ASTM C136-83 and have a smooth curve without sharp breaks when plotted on semi-log grading chart;

<u>ASTM Sieve Designation</u>	<u>% Passing</u>
20mm (3/4")	100
12.5mm (1/2")	50-75
9.5mm	30-50
6.0mm	10-20
0.425	0-5
0.18	nil
0.075	nil

E18.6 Granular Base Course – 2" (50mm) down limestone

E18.7 Crushed Limestone Fines – 1/4" (6mm) down.

Subgrade Inspection

- E18.8 Verify grades of compacted subgrade (to 100% SPD) for conformity with elevations and sections before placing granular material.
- E18.9 Proof roll graded subgrade to check for unstable areas, obtain approval of subgrade by Contract Administrator before placing granular base.
- E18.10 Remove and dispose of unsuitable sub base material as directed by Contract Administrator.

Placement and Compaction of Granular and Crushed Limestone

- E18.11 Place crushed granular base course material (stockpiled and new as required) to a minimum compacted thickness of 6" (150mm). Compact to 100% standard proctor density.
- E18.12 Place crushed granular levelling course material to a minimum compacted thickness of 2" (50mm). Compact to 100% standard proctor density.
- E18.13 Crushed Limestone fines to a minimum compacted thickness of 2" (50mm) as finishing course. Compact to 98% standard proctor density.
- E18.14 Add crushed granular material as required to replace unsuitable subgrade material. Place in layers not exceeding 8" (200mm) thickness and compact to 98% standard proctor.
- E18.15 Compact subgrade to min. 98% standard proctor density.
- E18.16 Finished surface to be within ½" (12mm) of specified grade, but not uniformly high or low. Ensure positive drainage on paved areas and in adjacent sodded areas.
- E18.17 Excavate edges and areas of failure for pathway to be rebuilt. Ensure pathway width matches new pathway as shown on the plans. Construct pathway as described herein. Remove existing limestone as required to construct pathway to depth and grade as per the drawings. Salvage usable material and remove from site all deleterious materials.

Field Quality Control

- E18.18 Inspection and testing of crushed stone paving will be carried out by designated testing laboratory, cost of testing to be paid for by cash allowance as directed by the Contract Administrator.

Acceptance

- E18.19 Any Work not satisfactory as specified herein and as determined by the Contract Administrator for initial testing, shall be rectified by the Contractor. This process of inspection and correction shall continue until the Contract Administrator is satisfied that the Work is 100% complete and as per the construction drawings and specifications. All additional tests for failed or unacceptable results will be borne solely by the Contractor.

Method of Measurement

- E18.20 Redevelopment of existing limestone pathway shall be measured on a square metre basis. The area to be paid for shall be the total number of square metres installed in accordance with this Specification and the Construction Drawings, as determined by the Contract Administrator
- E18.21 Crushed limestone pathway shall be measured on a square metre basis. The area to be paid for shall be the total number of square metres installed in accordance with this Specification and the Construction Drawings, as determined by the Contract Administrator.

Basis of Payment

- E18.22 Redevelopment of existing limestone pathway will be paid for at the contract unit price per square metre for "Rebuild existing limestone pathway" 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.
- E18.23 Crushed Limestone Pathway will be paid for at the contract unit price per square metre for "Supply and install limestone pathway" 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 including supply and install topsoil and sod in areas disturbed by construction.

E19. PLAY EQUIPMENT

Description

- E19.1 The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the supply and installation of sports and play equipment as follows:
- (a) One Play Structure with components as per drawings and as specified herein;
 - (b) One Net Climber as per drawings;
 - (c) Two saddle spinners as per drawings;
 - (d) One stand up seesaw as per drawings;
 - (e) One four seat seesaw as per drawings;
 - (f) One swing set;
 - (g) Concrete foundations for all play equipment as per manufacturer's recommendations (including stamped structural details). This Work is incidental to cost of supply and install all play equipment listed above.
 - (h) Refurbish existing swing sets
- E19.2 This Work will not include the pre-installation Site preparation Work or perimeter edging. However, co-ordination with Contractors carrying out these Works shall be necessary.

General

- E19.3 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E19.4 This specification shall cover the supply and installation of playground equipment as shown on the attached detail and layout drawings as specified herein.

Materials

- E19.5 Posts / Caps
- (a) All posts shall be a minimum of 5" O.D. round or 4" square tubing. All posts shall be fabricated from either aluminum (0.125" min. wall thickness) or galvanized steel (0.120" min. wall thickness) tubing with a baked-on polyester powder coating. The powder coating finish shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance. Colour scheme as per Detail drawings. All fabrication cuts drill holes and weld joints shall be sprayed with a corrosion resistant coating prior to powder coating. The bottom end of the posts is to be sealed with a moisture barrier.

- (b) Top caps for posts shall be aluminium die cast and powder coated the same as the post colour. All caps shall be factory installed and secured in place with tamper proof, self-sealing rivets.

E19.6 Decks

- (a) All decks shall be manufactured from vinyl-coated perforated steel.

E19.7 Clamping System

- (a) All deck, rail and play component clamping systems shall be fabricated from zinc plated, and galvanized steel, stainless steel or aluminium, and baked-on polyester powder coated to match post colour unless noted on Detail drawings. Tamper proof, corrosion resistant fasteners shall be used to retain clamping systems.

E19.8 Handrails, Safety Rails and Handloops

- (a) All handrails, safety rails and handloops shall be fabricated using a minimum of 1 1/8" O.D. with a 0.125" wall thickness steel tubing. After all fabrication activities have occurred including end cuts, drill holes, bends and weld joints, all components shall be hot dipped galvanized and baked-on polyester powder coated. Colours as per Detail drawings.

E19.9 Hardware

- (a) All fasteners shall be socketed and tamper proof in design, and either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.

E19.10 Poly Components

- (a) Poly components such as slides, hoods, and roofs shall be fabricated from U.V. stabilized, rotationally moulded liner low density polyethylene. All play components must be durable and of heavy duty construction to meet all requirements and specifications.
- (b) Poly components such as play panels shall be fabricated from compression molded solid colour, U.V. stabilized high density polyethylene.

E19.11 The following play components, or approved equivalents are to be included on the Play Structure

- (a) One (1) 40" step ladder
- (b) Three (3) Permalene Handhold Panels
- (c) One (1) 40" Step Ladder
- (d) One (1) 84" Disc Challenge
- (e) One (1) end vertical ladder
- (f) One (1) wiggle ring bridge
- (g) One (1) turning bar
- (h) One (1) cascade climber
- (i) One (1) Sky rail climber
- (j) One (1) vertical ascent
- (k) One (1) loop seat
- (l) One (1) pipe barrier
- (m) One (1) Deck Link with barriers two steps
- (n) One (1) balance beam

- (o) One (1) 72" Stainless Steel Slide
- (p) One (1) 40" custom double stainless steel slide
- (q) One (1) 16" ht. Square Platform
- (r) One (1) 40" ht. Square Platform
- (s) One (1) 64" ht. Square Platform
- (t) One (1) 72" ht. Square Platform

E19.12 The colours of the play structure shall be:

- (a) Poles: blue
- (b) Clamps: blue
- (c) Components: red
- (d) Plastic: yellow
- (e) Accents: red

E19.13 The climbing net shall be Model # 152754A Octa Net Climber as supplied by:

Playgrounds-R-Us
250 Transport Road
Winnipeg MB
Ph. 932-7000
Contact: Jodi Marr
Or approved alternate in accordance with B5.

E19.14 The stand up seesaw shall be Model #14837A as supplied by:

Playgrounds-R-Us
250 Transport Road
Winnipeg MB
Ph. 932-7000
Contact: Jodi Marr
Or approved alternate in accordance with B5.

E19.15 The saddle spinners shall be Model #152179A as supplied by:

Playgrounds-R-Us
250 Transport Road
Winnipeg MB
Ph. 932-7000
Contact: Jodi Marr
Or approved alternate in accordance with B5.

E19.16 The four seat seesaw shall be Model #148637A as supplied by:

Playgrounds-R-Us
250 Transport Road
Winnipeg MB
Ph. 932-7000
Contact: Jodi Marr
Or approved alternate in accordance with B5.

E19.17 The swing set shall be Model #581-440 8' high 4 place tri-pod triple end support legs with swing unit c/w galvanized 3 1/2" OD. top beam, 2 3/8" OD legs & powder coated painted yoke fittings, 2

slash proof belt seats, 2 infant seats, swing hangers with greaseless bearings and ¼" plated chain as supplied by:

Playgrounds-R-U's
250 Transport Road
Winnipeg MB
Ph. 932-7000
Contact: Jodi Marr
Or approved alternate in accordance with B5.

- E19.18 Existing swing sets on site are to be refurbished. This work entails the removal of rust, tightening of bolts, and the replacement of failed components and missing hardware. The swing sets are to be reviewed on site with the Contract Administrator and City of Winnipeg to list all required work.

Canadian Standards Association Guidelines

- E19.19 All playground equipment supplied and the method of installation shall be in accordance with the most recent edition of the "National Standard of Canada, CAN/CSA-Z614-98".
- E19.20 The Contractor shall submit, within two (2) Business Days of request of Contract Administrator, a written statement confirming compliance with this guideline and shall be prepared, if requested, to provide data supporting compliance within ten (10) working days of such a request, at no cost to the City.

Installation

- E19.21 Install all components as per manufacturer's specifications. Install manufacturer's standard fittings, fasteners and hardware as required. All posts and anchors to be installed in concrete footings as per manufacturer's specification and details. Impervious seal to be applied around all in-ground components, to prevent water seepage, as per manufacturer's specifications.
- E19.22 Play structures and Swing Standards shall be installed as per the Canadian Standards Association Guidelines. All posts and other vertical items shall be true to vertical. All decks shall be level.

Manufacturer's Shop Drawings and Specifications

- E19.23 The Contractor shall submit, THREE (3) COPIES of the manufacturers' shop drawings and specifications for all the play equipment for review, evaluation and approval purposes within five (5) Business Days of award of Contract. One (1) approved copy will be returned to the successful Contractor. Shop drawings shall be drawn to scale and include all components, proposed layout and dimensions.
- E19.24 Review of the shop drawings in no way relieves the Contractor of the final responsibility for correctness of the dimensions, sizes, fabrication details, errors made therein, or for any changes made by the Contract Administrator's drawings or specifications not covered by the Contractor's written notification to the Contract Administrator. No reprint of the Contract Administrator's drawings shall be used as the shop drawings.
- E19.25 Concrete Foundations
- E19.26 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. The current Standard Construction Specifications of the City of Winnipeg, CW 2160-R4 - Concrete to be Used in Underground Works, is to be utilized in the installation of the concrete Works for all below ground components. All foundations are to be stamped by a Structural Engineer licensed to practice in the province of Manitoba.

E19.27 The specific concrete requirements shall be:
Sulfate resistant, Type 50 Cement
28 day compressive strength of 30 Mpa
maximum aggregate size of 40mm, nominal
slump 90 20mm
maximum water/cement ratio 0.45

E19.28 No separate payment will be made for concrete foundation for play equipment. All Work is incidental to the unit prices bid for the items.

E19.29 Installation

- (a) Contractor shall notify the Contract Administrator at least 48 hours prior to installation of concrete, so that footings may be inspected in advance of concrete being poured.
- (b) Play structure posts shall be centered in concrete footing with a minimum 200mm band of concrete on all sides.
- (c) Concrete Bases shall be buried below the top of the protective surfacing and have top corners rounded and all rough edges removed according to CSA standards.
- (d) Concrete Bases shall be sized appropriately to withstand constant stresses and prevent any shifting of the components. Contractor shall be prepared to supply detailed dimension and specification for the concrete foundations/footings for all components.

Maintenance Kits

E19.30 All play equipment shall include the supply of maintenance kits. Maintenance kits shall include maintenance manuals, complete manufacturer's parts lists, touch-up paint, PVC repair paint, 10% extra of each bolt, washer and any other hardware utilized on the play equipment, and all special tools necessary for assembly and maintenance.

Method of Measurement

E19.31 Supply and installation of play equipment shall be measured on a per unit basis. The number of units to be paid shall be the total number of units supplied and installed in accordance with the Specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

E19.32 Refurbishment of existing swing sets shall be measured on a lump sum basis in accordance with the Specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

Basis of Payment

E19.33 Supply and Installation of sports equipment shall be paid for on a per item basis for "Supply and install play equipment" measured as specified herein, which price shall be payment in full for supplying all materials (including concrete foundations) and performing all operations herein described and all other items incidental to the Work included in this Specification.

E19.34 Refurbishment of existing swings sets shall be paid for on a lump sum basis for "Refurbish existing swing sets" 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.

E20. PLAYGROUND STONE

Description

- E20.1 The Work comprises the furnishings of all labour, equipment services and materials required to complete the installation of playground stone within the play structure and swing areas as indicated on the drawings.

General

- E20.2 Contractor shall visit the Site and verify all data and dimensions and report any errors, omissions or discrepancies to the Contract Administrator prior to any installation.

Material

- E20.3 Playground stone shall be 6mm, composition shall be Typical Birds Hill glacial till material, approximately 70% limestone and 30% granite. Stone shall be washed and screened.

Sieve Analysis:

Sieve Size	Cumulative % Passing
10 mm	100
5 mm	80-90
2.5 mm	5-25
1.25 mm	2-15
.08 mm	0-1

Construction Methods

- E20.4 Contractor to remove existing sand safety surfaces as per section E15.
- E20.5 Playground Stone shall be installed within all the play areas, as defined by the edging, to a minimum installed compacted depth of 250mm.
- E20.6 The installation of the Playground Stone shall be done immediately after the play structure has been installed.
- E20.7 Installation shall be done by equipment sized to suit the Work being done and the stone shall be spread by hand in the immediate vicinity of the play structures so as not to damage the same. The play structures shall be swept clean as required after installation of the stone.
- E20.8 Playground stone to be installed as per, CSA Standards, play equipment manufacturer's specifications and as directed by Contract Administrator on Site.

Method of Measurement

- E20.9 Playground Stone will be measured on an area basis. The quantity to be paid for will be the actual number of square meters supplied and installed in accordance with this Specification and accepted by the Contract Administrator, as computed from the measurements made by the Contract Administrator.

Basis of Payment

- E20.10 Playground Stone shall be paid for at the Contract Unit Price per square meter for 'Remove existing sand and replace with playground stone' 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.

E21. SITE FURNITURE

Description

- E21.1 This specification covers the supply and installation of:
- (a) 1.82m length Tache Style Wood Benches with Backs complete with in ground anchoring system.
- E21.2 This specification covers the relocation of existing site furniture including supply and install concrete base.

General

- E21.3 Store units in a protected location, immediately upon arrival on the Site.
- E21.4 Remove from Site any units which have been damaged during transportation and replace.

Products

- E21.5 Relocate existing Site furniture as noted on the drawings to locations as specified by Contract Administrator.
- E21.6 Recycled plastic benches #525 01 074-1.82m length Tache Style bench with backs as supplied by:

City of Winnipeg
Public Works, Equipment and Material Services,
102 1155 Pacific Ave.
Winnipeg, Manitoba R3E 1G6
Ph: (204) 986-5504 Fax: (204) 783-1248
Attn. Bill Dowbyhuz

- E21.7 Concrete Bases to be as per SCD 120.

Installation

- (a) Site Furniture shall be installed in locations as indicated on the Construction Drawings.
- (b) Benches to be installed as per City of Winnipeg Specifications and details.
- (c) Tache Bench SCD 120
- (d) Protect and maintain Site furnishings, including accessories, until acceptance of project Work.
- (e) Immediately remove from Site, damaged furnishing and accessories. Replace, repair, re-finish, or otherwise make good to approval of Contract Administrator.

Method of Measurement

- E21.8 Supply and Installation of Site furniture will be measured on a unit basis. The number of each item to be paid for will be the total number supplied and placed in accordance with this Specification and accepted by the Contract Administrator, as measured by the Contract Administrator.

Basis of Payment

- E21.9 Supply and Installation of Site furniture shall be at the per unit price bid for each item as follows:
- (a) Relocate existing Site furniture
 - (b) 1.82m length Tache Style recycled Benches with Backs

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.

E22. PLANT MATERIAL

Description

- E22.1 The following list generally describes the scope of this section:
- (a) Supply and installation of trees and shrubs including preparation, digging, transport and planting.
 - (b) Maintenance to Total Performance.
 - (c) Maintenance for Two (2) years from date of Total Performance
 - (d) Warranty for two (2) full years

General

- E22.2 Obtain approval of plant material at source.
- E22.3 Notify Contract Administrator of source of material at least 7 days in advance of shipment. No Work under this Special Provision is to proceed without approval.
- E22.4 Acceptance of plant material at source does not prevent rejection at Site prior to or after planting operations.
- E22.5 Source of all plant material to be from an area within the same hardiness zone and soil conditions as Winnipeg.
- E22.6 Co-ordinate shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting. Tie branches of trees and shrubs securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of planting stock with rope or wire which would damage bark, break branches or destroy natural shape of plant. Give full support to root ball of large trees during lifting.
- E22.7 Cover plant foliage with tarpaulin, and protect bare roots by means of dampened straw, peatmoss, sawdust or other acceptable material to prevent loss of moisture during transit and storage.
- E22.8 Remove broken and damaged roots with sharp pruning shears. Make clean cut and cover cuts over 50 mm diameter with wound dressing.
- E22.9 Keep roots moist and protected from sun and wind. Heel-in shrubs, which cannot be planted immediately, in shaded areas, and water well.

Materials

- E22.10 Water should be potable and free of minerals, which may be detrimental to plant growth.
- E22.11 Quality and Source: Comply with Guide Specification for Nursery Stock, 1982 Edition of Canadian Nursery Trades Association, referring to size and development of plant material and root ball. All plant material to be approved by the Contract Administrator.
- E22.12 Measure plants when branches are in their natural position. Height and spread dimensions refer to main body of plant and not from branch tip to branch tip. Use trees and shrubs of No. 1 grade.
- E22.13 Use shrubs with strong fibrous root system free of disease, insects, defects or injuries and structurally sound. Plant must have been root pruned regularly, but not later than one growing season prior to arrival on Site.

- E22.14 Approval required for plant material, which has been held in cold storage.
- E22.15 Deciduous trees in excess of 3 m height must have been dug with large firm ball. Root balls must include 75% of fibrous and feeder root system. This excludes use of native trees grown in light sandy or rocky soil. Secure root balls with burlap, heavy twine and wire basket. Protect root balls against sudden changes in temperature and exposure to heavy rainfall.
- E22.16 No tree spade dug material will be accepted.
- E22.17 Lift root ball from hole, place in wire basket designed for purpose and line with burlap. Replace root ball and tie basket to ball with heavy rope. Take care not to injure trunk of tree with wire basket ties or rope.
- E22.18 Container grown stock is acceptable if containers large enough for root development. Shrubs must have grown in container for minimum of one growing season but not longer than two. Root system must be able to "hold" soil when removed from container. Plants that have become root bound are not acceptable. Container stock must have been fertilized with slow releasing fertilizer.

Construction Methods

- E22.19 Stake out location of tree and shrubs as per the Construction Drawings. Obtain approval by the Contract Administrator prior to excavating.
- E22.20 Co-ordinate operations. Keep Site clean and planting holes drained. Immediately remove soil or debris spilled onto pavement.
- E22.21 When permission has been obtained to plant materials after buds have broken, spray plants with anti-desiccant to slow down transpiration prior to transplanting.
- E22.22 Plant only under conditions that are conducive to health and physical conditions of plants.
- E22.23 Provide planting schedule. Executing planting operations over long period using limited crew will not be accepted.
- E22.24 Prepare Tree Pits to City of Winnipeg and Canadian Nursery Trades Association standards.
- E22.25 Provide drainage for planting holes in heavy soil if natural drainage does not exist. Have method approved.
- E22.26 Protect bottom of excavations against freezing.
- E22.27 Remove water, which enters excavations prior to planting. Ensure source of water is not ground water.
- E22.28 Loosen bottom of planting hole to depth of 150 to 200 mm. Cover bottom of each excavation with minimum of 150 mm of topsoil mixture.
- E22.29 Plant trees and shrubs vertically with roots placed straight out in hole. Orient plant material to give best appearance in relation to structure, roads and walks.
- E22.30 Place plant material to depth equal to depth they were originally growing in nursery.
- E22.31 With balled and burlapped root balls, loosen burlap and cut away minimum top 1/2 without disturbing root ball. Cut vertical slits in remaining burlap around root ball at 250mm intervals. Remove all rope, string, or other ties from around trunk. Do not pull burlap or rope from under root ball. With container stock, remove entire container without disturbing root ball. Non bio-degradable wrappings must be removed including wire baskets.

- E22.32 Tamp planting soil around root system in layers of 150mm eliminating air voids. Frozen or saturated planting soil is unacceptable. When 2/3 of planting soil has been placed, fill hole with water. After water has completely penetrated into soil, complete backfilling.
- E22.33 Build 100 mm deep saucer around outer edge of hole to assist with maintenance watering. Install 100mm depth wood chip mulch in saucer as shown on drawings.
- E22.34 When planting is completed, give surface of planting saucer dressing of organic 10-15-10 fertilizer at rate of 12 kg/100 m for shrub beds or 40 to 50 g/mm of calliper for trees. Mix fertilizer thoroughly with top layer of planting soil and water in well.
- E22.35 Prune trees and shrubs after planting only as required to remove broken diseased or dead branches. Employ clean sharp tools and make cuts flush with main branch, smooth and sloping as to prevent accumulation of water.

Maintenance

- E22.36 After completion of planting operation to the satisfaction of the Contract Administrator, the Contractor shall be responsible for the maintenance of the plant material until date of Total Performance and for 30 days from date of Total Performance.
- E22.37 Replace any dead or damaged plant material during the maintenance period, including replacement of vandalized material.
- E22.38 Water sufficiently to maintain optimum growing conditions. Ensure adequate moisture in root zone at freeze-up.
- E22.39 The Contractor shall provide all necessary equipment, including: tractors, mowers, hand mowers, trimmers, fertilizer spreaders, pruning tools, hoses, water meters, and any other items necessary for the maintenance of the plant material indicated in this Specification.
- E22.40 The Contractor shall provide all necessary personnel for the ongoing maintenance operations.
- E22.41 Personnel should have at least one year of experience in landscape maintenance and should be under the direction of a foreman, in all cases, with not less than five years of experience with similar maintenance operations.

Maintenance Methods

- E22.42 Trees shall be watered bi-weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week.
- E22.43 To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600 mm. The soil shall contain enough moisture to hold together when compressed in the hand, but not be muddy.
- E22.44 Because of the specialized nature of such operations, fertilizing is to be done by a qualified local arborist.
- E22.45 Fertilize in the fall over the surface of the ground surrounding the plants, then soak the area thoroughly, use appropriate analysis fertilizer for autumn planting and spread to a maximum of 0.13 kg per square metre.
- E22.46 Remove weeds from tree wells. Top up mulch in spring and fall of each year.

Method of Measurement

E22.47 Supply and Installation of Plant Material will be measured on a unit basis. The number of units to be paid shall be the total number of each type and size of units supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator.

Basis of Payment

E22.48 Supply and Installation of Plant Material will be paid for at the Contract Unit Price per unit type and size specified for "Supply and Installation of Plant Material", 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.