



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 447-2013

**SUPPLY, DELIVERY, AND ASSEMBLY OF AN UNMANNED AERIAL SYSTEM FOR
BRADY ROAD RESOURCE MANAGEMENT FACILITY**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 SUPPLY, DELIVERY, AND ASSEMBLY OF AN UNMANNED AERIAL SYSTEM FOR BRADY ROAD RESOURCE MANAGEMENT FACILITY

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, August 6, 2013 .

B2.2 Bids 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 D4.1.

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 promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B3.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.

B3.4 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.

B3.5 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.

B3.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B2.3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. CONFIDENTIALITY

B4.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

- (a) was known to the Bidder before receipt hereof; or
- (b) becomes publicly known other than through the Bidder; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B4.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

B5. ADDENDA

- B5.1 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.
- B5.2 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.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the materials, equipment, methods and products specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least seven (7) Business Days prior to the Submission Deadline.
- B6.4 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 material, equipment, method or product 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 Contract;
 - (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 Contract.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her 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.
- B6.6 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.

- B6.6.1 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/she wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her 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.
- B6.9 No later claim by the Contractor for an addition to the price(s) because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B14.1(a).

B7. BID SUBMISSION

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Additional qualification identified in
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid 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, to constitute a responsive Bid.
- B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B7.5.1 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.
- B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B14.1(a).
- B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204-949-1178.

B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B7.9 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B8. BID

B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 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/her own name, his/her 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/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.

B8.3 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.

B8.4 Paragraph 11 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/her 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/her 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.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B8.5 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 and the Contract, when awarded, shall be both joint and several.

B9. PRICES

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B9.1.1 Prices on Form B: Prices shall include:

- (a) duty;
- (b) freight and cartage;
- (c) Provincial and Federal taxes [except the Goods and Services Tax (GST) and Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable] and all charges governmental or otherwise paid;
- (d) profit and all compensation which shall be due to the Contractor for the Work and all risks and contingencies connected therewith.

- B9.2 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.
- B9.3 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.

B10. QUALIFICATION

- B10.1 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, or if the Bidder does not carry on business in Manitoba, in the jurisdiction where the Bidder does carry on business; and
 - (b) be financially capable of carrying out the terms of the Contract; and
 - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations 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 Division website at <http://www.winnipeg.ca/matmgt/debar.stm>
- B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba).
- B10.4 The Bidder shall provide, in his/her Bid:
- (a) A resume with references of no less than five (5) success flights in Canada;
 - (b) A copy of five (5) successful applications for Special Flight Operations Certificate;
 - (c) A minimum specification for servers, terminals and network requirements.
- B10.5 The Bidder shall 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.
- B10.6 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.

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

- B11.1 Bids will not be opened publicly.
- B11.2 Following the Submission Deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements or evaluated prices) will be available on the Closed Bid Opportunities (or Public/Posted Opening &

Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website 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 Division website at <http://www.winnipeg.ca/matmgt>

B11.4 The Bidder is advised that any information contained in any Bid 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 10 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 for the time period specified in Paragraph 10 of Form A: Bid.

B13. WITHDRAWAL OF BIDS

B13.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B13.1.1 Notwithstanding C21, 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 11 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 will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 11 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/her Bid after the Submission Deadline but before his/her 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.

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, or acceptable deviation therefrom (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

- 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 or minor informalities or irregularities 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/her Bid or in other information required to be submitted, that he/she 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.
- B14.5 This Contract will be awarded as a whole.

B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract 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, in accordance with B14.
- B15.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B15.4 Notwithstanding C4 and Paragraph 6 of Form A: Bid, the City will issue a purchase order to the successful Bidder in lieu of the execution of a Contract.
- B15.5 The Contract Documents, as defined in C1.1(n) (ii), in their entirety shall be deemed to be incorporated in and to form a part of the purchase order notwithstanding that they are not necessarily attached to or accompany said purchase order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for the Supply of Goods* (Revision 2008 05 26) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for the Supply of Goods* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Supply of Goods*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for the Supply of Goods*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of the Supply, Delivery, Assembly and Training of an Unmanned Aerial System with related Aerial Imaging Software and compatible Weather Resistant DSLR Camera and Lens at Brady Road Resource Management Facility to be used for aerial survey, mapping, and volumetric calculation. Provision of training related to the permit process, operation, and processing of data and information gathered from the Unmanned Aerial System.

D3. DEFINITIONS

D3.1 When used in this Bid Opportunity:

- (a) "**UAS**" means Unmanned Aerial System ;
- (b) "**DSLR**" means Digital Single-Lens Reflex ;
- (c) "**SFOC**" means Special Flight Operations Certificate;
- (d) "**ROC-A**" means Restricted Operator Certificate –Aeronautical;
- (e) "**BRRMF**" means Brady Road Resource Management Facility located at 1901 Brady Road.

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is:
Duy Doan C.E.T.
Environmental Projects Technologist
Telephone No.: 204- 471-7620

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

D6.1 Notwithstanding C21.3, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg
Chief Financial Officer

Facsimile No.: 204-949-1174

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

D7.1 The Contractor shall 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, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D8. INSURANCE

D8.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least five million dollars (\$5,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, contractual liability, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) Aviation General Liability insurance for owned and non-owned aircraft in the amount of five million dollars (\$5,000,000.00) with the City of Winnipeg to be added as an additional insured, such policy to also include a cross-liability clause and to remain in place during the performance of the work.

D8.2 Deductibles shall be borne by the Contractor.

D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4 for the return of the executed Contract.

D8.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D9. MATERIAL SAFETY DATA SHEETS

D9.1 The Contractor shall provide the Contract Administrator with one (1) copy of Material Safety Data Sheets (MSDS's) for the onboard batteries specifically and for each additional applicable product that is supplied under the Contract at least two (2) Business Days prior to the commencement of Work but in no event later than the date specified in C4 for the return of the executed Contract.

D9.2 Throughout the term of the Contract, the Contractor shall provide the Contract Administrator with revisions or updates of the MSDS's as soon as may be reasonably possible.

SCHEDULE OF WORK

D10. COMMENCEMENT

- D10.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.
- D10.2 The Contractor shall not commence any Work until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D7;
 - (ii) evidence of the workers compensation coverage specified in C6.16;
 - (iii) evidence of the insurance specified in D8;
 - (iv) the Material Safety Data Sheets specified in D9;
 - (v) a detailed training schedule for all necessary components related to an Unmanned Aerial System, software, and photogrammetry equipment, and
 - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

D11. DELIVERY

- D11.1 Goods shall be delivered within forty five (45) Calendar Day(s) of the award of contract, f.o.b. destination, freight prepaid to:
Duy Doan C.E.T.
Environmental Projects Technologist
1901 Brady Road
- D11.2 The Contractor shall confirm each delivery with the Contract Administrator or his/her designate, at least two (2) Business Days before delivery.
- D11.3 Goods shall be delivered between 8:30 a.m. and 4:30 p.m. on Business Days.
- D11.4 The Contractor shall off-load goods as directed at the delivery location.

D12. LIQUIDATED DAMAGES

- D12.1 If the Contractor fails to achieve delivery of the goods within the time specified in D11 Delivery the Contractor shall pay the City six hundred dollars (\$600) per Calendar Day for each and every Calendar Day until the goods have been delivered.
- D12.2 The amount specified for liquidated damages in D12 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Delivery by the day fixed herein for same.
- D12.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

MEASUREMENT AND PAYMENT

D13. INVOICES

- D13.1 Further to C10, the Contractor shall submit an invoice for each order delivered to:
The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9

Facsimile No.: 204-949-0864
Email: CityWpgAP@winnipeg.ca

- D13.2 Invoices must clearly indicate, as a minimum:
- (a) the City's purchase order number;
 - (b) date of delivery;
 - (c) delivery address;
 - (d) type and quantity of goods delivered;
 - (e) the amount payable with GST, MRST, and any applicable environmental handling charges/fees identified and shown as separate amounts; and
 - (f) the Contractor's GST registration number.
- D13.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.
- D13.4 Bids Submissions must be submitted to the address in B7.5.

D14. PAYMENT

- D14.1 Further to C10, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D15. PAYMENT SCHEDULE

- D15.1 Further to C10, payment shall be in accordance with the following payment schedule:
- (a) Eighty (80%) percent payment upon manufacture and transfer of title to the City;
 - (b) Ten (10%) percent payment upon completion of the training in accordance with E6.1(a)
 - (c) Ten (10%) percent payment upon completion of all necessary training in accordance with E6.1(b).
- D15.1 Further to C10, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

WARRANTY

D16. WARRANTY

- D16.1 Notwithstanding C11, the warranty period shall begin on the date of Total Performance and shall expire three (3) years thereafter unless extended pursuant to C11.3, in which case it shall expire when provided for thereunder.

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6.

E2. GOODS

- E2.1 The Contractor shall supply and deliver an Unmanned Aerial System in accordance with the requirements hereinafter specified.
- E2.2 Item No. 1 - Unmanned Aerial System shall be in accordance with E3. .
- E2.3 Item No. 2 - Aerial Image Processing Software (Pro Version) shall be in accordance with E4. .
- E2.4 Item No. 3 - Weather Resistant DSLR Camera and Lens shall be in accordance with E5. .

E3. UNMANNED AERIAL SYSTEM

- E3.1 The Unmanned Aerial Vehicle shall:
- (a) Be model year 2013 or newer model. Remanufactured or refurbished items will not be accepted
 - (b) be able to carry a payload of two thousand five hundred grams (2500g)
 - (c) have a minimum flight time of 30 minutes without payload in ideal conditions
 - (d) Be compatible with various types of cameras and manufacturers , such as:
 - (i) Standard Port Canon, Nikon, Pentax, Sony, Flir (thermografic) within the payload limit
 - (e) Have special camera housing with automatic pitch and roll compensation to ensure sharp images
 - (f) Be able to fly:
 - (i) in wind speeds up to forty five (45) kilometer with gusts up to fifty five (55) kilometer
 - (ii) With cruising speed of sixty (60) kilometer per hour
 - (iii) And function in wet weather/light rain conditions
 - (g) Have automated controls for:
 - (i) Take-off and landing
 - (ii) Failsafe landing and come home feature
 - (iii) Detection and avoidance of obstacles during landing
 - (iv) Programmed flight paths
 - (h) Have a rotary flight system with vertical take-off and landing
 - (i) Flight system to have a minimum of four (4) rotors
 - (i) Have shroud protection of blades and propellers
 - (j) Be able to broadcast live video feed via secondary camera
 - (k) Be equipped with Lithium-Polymer removal batteries with five (5) sets of batteries with charging station and carrying case
 - (l) Be capable of flights between fifty (50) and one thousand five hundred meters (1,500m) above ground level (AGL)

- (m) Be capable of Geo-referencing imagery taken
 - (i) This option can be included on either the UAV or DSLR camera
- (n) Be capable of landing safely in the event of one motor failure
- (o) Include and be updated by the contractor any current version firmware upgrades at no extra cost to the City of Winnipeg
- (p) Have interactive automated mapping routines

E3.2 Unmanned Aerial System Ground Control Station must:

- (a) Be able to and include software to confirm area coverage and data quality after flights are completed;
- (b) Allow for live video from the perspective of the UAV to the screen of the ground station in real time without noticeable delay
- (c) have tablet for:
 - (i) Automated start up and take off to predefined heights
 - (ii) Execution of flight plan
 - (iii) Return home
 - (iv) Automated landing

E4. AERIAL IMAGE PROCESSING SOFTWARE

E4.1 The Aerial Image Processing Software shall:

- (a) Be compatible with:
 - (i) 64 bit processors
 - (ii) Windows 7 and higher versions (64 bit)
 - (iii) UAS supplied
 - (iv) DSLR supplied and have multi camera support
- (b) Be able to Output data in Standard Industry Format for work with GIS and AutoCAD
- (c) Include all current version software updates at no extra charge to the City
- (d) Be UAV optimized
- (e) Allow for Ground Point Editing:
 - (i) To insert Ground Control Points and Coordinate Reference System Support
- (f) Have Multi-band support (RGB, NIR, Thermal)
- (g) Be able to produce an automatic accuracy report
- (h) Allow rapid on-site processing
- (i) Allow Offline processing
- (j) Have measurement tools for calculating
 - (i) distances and heights
 - (ii) volumes, cuts, and fills
 - (iii) areas
- (k) Allow of Orthomosaic (TIFF)
- (l) Produce DEM, Digital Elevation Models (TIFF, TXT)
- (m) Produce Point Cloud (PLY, TXT)
- (n) Allow for mosaic editing to:
 - (i) Correct artefacts and building edges
 - (ii) Remove moving objects
 - (iii) Improve picture quality by adjusting brightness and contrast.

E5. WEATHER RESISTANT DSLR CAMERA AND LENS

E5.1 The DSLR Camera shall:

- (a) Be able to function in wet weather/light rain conditions;
- (b) Use SD card, SDHC card, and SDXC memory card;
- (c) Be full frame (35.8mm x 23.9mm);
- (d) Be capable of a minimum of 20 megapixels resolution
- (e) Capture images in JPEG and RAW formats
 - (i) Simultaneous capture of JPEG and RAW
 - (ii) Separate capture of JPEG or RAW
- (f) Be capable of 1080p video recording and export into H.264 format;
- (g) Have a minimum of 3 fps continuous shooting;
- (h) ISO 100-25600 Standard;
- (i) Include two (2) sixteen gigabyte (16GB) SDHC Flash memory cards;
 - (i) SDHC cards must have up to a 45 MB/sec read and write speed
 - (ii) Include a USB 3 capable card reader

E5.2 The Camera Lens shall:

- (a) Be sealed to external contaminants.

E6. TRAINING AND TECHNICAL SUPPORT

E6.1 Training

- (a) The Contractor shall provide to satisfy the requirements of Transport Canada in the use of UAS for a commercial use.
 - (i) This training shall include assisting in the SFOC approval of no less than 6 flights
 - (ii) This training shall include ground flight training and ROC-A certification
 - (iii) Training listed above may be done prior to receipt of UAS equipment
- (b) The Contractor shall provide training of no less than three (3) days of eight (8) hours on the use of the UAS, Aerial Imaging Software, and DSLR Camera which shall include a minimum of eight (8) hours of flight time and operation.
- (c) The Contractor will train four (4) trainees selected by the Contract Administrator or User.
- (d) The Contractor will complete the training within fourteen (14) calendar days of delivery of UAS
- (e) The Contractor must have AGL insurance for any training prior to receipt of the UAV and prior to the City of Winnipeg obtaining AGL insurance.
- (f) The Contractor will supply a price at the request of the Contract Administrator for future training outside the scope of the current Contract

E6.2 Technical Support

- (a) The Contractor will provide on-site technical support and warranty support within forty-eight (48) hours of notification by the Contract Administrator or User until the end of the warranty period listed in D16 at no charge to the City of Winnipeg
- (b) During the warranty period, if the UAS is out of service due to warranty, the Contractor shall supply another UAS that is approved by the Contract Administrator along with applicable training capable of carrying out current flights until which time as the UAS is back in service.
- (c) During the warranty period, if the UAS is out of service due to damage by the City of Winnipeg, the Contract Administrator or user may elect to have the Contractor supply

another UAS that is approved by the Contract Administrator with applicable training capable of carrying out current flights within forty-eight (48) hours at an agreed upon cost until which time as the UAS is back in service.