



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 506-2014

SUPPLY AND DELIVERY OF A STRUVITE RECOVERY SYSTEM

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 SUPPLY AND DELIVERY OF A STRUVITE RECOVERY SYSTEM

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, October 14, 2014.

B2.2 Proposals 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 D8.1.

B3.2 If the Bidder finds errors, discrepancies or omissions in the Request for Proposal, 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 Request for Proposal 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 Request for Proposal 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 B3 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 Request for Proposal 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 Request for Proposal, 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: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the materials, equipment, methods and products specified in the Request for Proposal.
- 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, to the Bidder who requested approval of the substitute.

- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be 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 B21.
- 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 B7.9, deviations inconsistent with the Request for Proposal document shall be evaluated in accordance with B21.1(a).

B7. PROPOSAL SUBMISSION

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal;
 - (b) Form B: Prices;
 - (c) Form N: Price Adjustment Mechanism;
 - (d) Form O: Operating Costs.
- B7.2 The Proposal should include the following components:
- (a) Form P: Previous Installations;
 - (b) the Bidder supplied documents listed in B13.
- B7.3 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.4 Further to B7.1, all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.5 Further to B7.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.6 Bidders should submit one (1) unbound original (marked “original”), five (5) paper copies, and one electronic copy on DVD media. Electronic files should be in PDF format with security set to permit printing and commenting.
- B7.7 The Proposal Submission shall be submitted enclosed and sealed in an envelope clearly marked with the RFP number and the Bidder's name and address.
- B7.7.1 Samples or other components of the Proposal Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the RFP number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Proposal Submission.
- B7.8 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.

- B7.9 Bidders are advised that inclusion of terms and conditions inconsistent with the Request for Proposal document, including the General Conditions, will be evaluated in accordance with B21.1(a).
- B7.10 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.11 Proposals shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1

B8. PROPOSAL

- B8.1 The Bidder shall complete Form A: Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Proposal 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 Proposal 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: Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Proposal.
- B8.4 Paragraph 11 of Form A: Proposal 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: Proposal should be printed below such signatures.
- B8.5 If a Proposal 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 Proposal 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.
- B9.1.2 Prices on Form B: Prices shall not include Environmental Handling Charges (EHC) or fees, which shall be extra where applicable.
- 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 Proposals.
- 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.
- B9.4 Where applicable to the Request for Proposal, payments for services to Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. PRICE ADJUSTMENT MECHANISM

General

- B10.1 The prices submitted on Form B: Prices shall be fixed for the duration of the Contract except as provided for hereunder and in D6.1(b) and/or D7.
- B10.2 The Bidder may submit prices on the basis of:
- (a) Alternative 1 - Fixed Price;
 - (b) Alternative 2 - Indexed Price; or
 - (c) Alternative 3 - Bidder's Price Adjustment Mechanism.
- B10.3 The Bidder is advised that, if he is submitting Proposals on the basis of more than one alternative, to clearly identify both Form B: Prices and Form N: Price Adjustment Mechanism for each alternative.
- B10.4 Alternative 1 - Fixed Price
- B10.4.1 If the Bidder is submitting a price for one or more Items based on Alternative 1 - Fixed Price, he shall indicate so on Form N: Price Adjustment.
- B10.4.2 The Contract Price for such Item(s) shall be adjusted in accordance with D7.2.
- B10.5 Alternative 2 - Indexed Price
- B10.5.1 If the Bidder is submitting a price for one or more Items based on Alternative 2 - Indexed Price, he shall indicate so on Form N: Price Adjustment.
- B10.5.2 The Contract Price for such Item(s) shall be adjusted in accordance with D7.3.
- B10.6 Alternative 3 – Bidder's Price Adjustment Mechanism
- B10.6.1 If the Bidder is submitting a price for one or more Items based on Alternative 3 - Bidder's Price Adjustment Mechanism, he shall indicate so on Form N: Price Adjustment and describe the proposed price adjustment mechanism on attachments to the form.
- B10.6.2 The Contract Price for such Item(s) shall be adjusted in accordance with D7.4.

- B10.6.3 The Bidder's Price Adjustment Mechanism must be based on indices that:
- (a) are directly related to the cost of production and transportation, or the fair market price, of the subject Item;
 - (b) can be verified through independent sources (i.e., published or posted publicly);
 - (c) have existed for at least five (5) years and for which records are available for at least the five (5) years immediately preceding the Submission Deadline.
- B10.6.4 The Bidder's Price Adjustment Mechanism should:
- (a) allow the Contract Price for:
 - (i) Item No. 1 - Supply and Delivery of Struvite Recovery System to be determined at least ninety (90) Calendar Days prior to exercising the option to purchase the Struvite Recovery System (see D6);
 - (ii) Item No. 2 – Purchase and Removal of Struvite to be determined at least seven (7) Calendar Days prior to the effective date of each price adjustment.
 - (b) result in annual adjustments for the Contract Unit Price for Item No. 2 - Purchase and Removal of Struvite.
 - (c) result in prices in Canadian dollars.
- B10.6.5 The Bidder's Price Adjustment Mechanism may:
- (a) utilize different mechanisms for different products or services;
 - (b) utilize multiple indices for a single item.
- B10.6.6 Proposals based on a Bidder's Price Adjustment Mechanism should contain sufficient information to reasonably enable the City to judge its merits.

B11. FORM O: OPERATING COSTS

- B11.1 The Bidder shall complete Form O: Operating Costs which will be used to evaluate the life cycle cost of ownership and use of the equipment over a twenty (20) year period.
- B11.1.1 Identify any differences in the operating costs for the Struvite Recovery System operating with the pre-digestion phosphorus release process and the Struvite Recovery System operating without the pre-digestion phosphorus release process.
- B11.1.2 Identify any differences in the operating costs for the initial installation based on 2020 flows and those for the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5.

B12. FORM P: PREVIOUS INSTALLATIONS

- B12.1 The Bidder shall complete Form P: Previous Installations with the requested information for a minimum of two (2) previously completed installations of the proposed Struvite recovery equipment in wastewater applications.
- B12.1.1 At least two (2) of the previously completed installations must each have:
- (a) a rated capacity of 500 kg of Struvite per day or more;
 - (b) been in operation for two (2) years or more.
- B12.1.2 The previously completed installations should:
- (a) have a rated capacity of 1000 kg of Struvite per day or more;
 - (b) be for municipal wastewater treatment;
 - (c) include a pre-digestion phosphorus release process;
 - (d) operate in cold-weather environment (monthly average wastewater temperature 7°C or lower).

B12.1.3 The Bidder may list up to three (3) additional installations completed or in progress which may not individually meet all the aforementioned criteria but collectively demonstrate the Bidder's experience.

B13. BIDDER SUPPLIED DOCUMENTS

B13.1 Bidder's Drawings

B13.1.1 The Proposal should include Bidder's Drawings showing plans and sections of the proposed Struvite Recovery System and other general arrangement drawings, including all equipment and ancillary components required for a fully-functioning system.

B13.1.2 Bidder's Drawings should:

- (a) be at least metric size A2;
- (b) indicate key dimensions of the equipment and required clearances in SI metric units;
- (c) indicate which components are not supplied by the Bidder and reference relevant component/part numbers from the list of components not supplied by the Bidder;
- (d) indicate any differences between the design for 2020 flows and the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5.

B13.2 Process and Instrumentation Diagrams

B13.2.1 The Proposal should include Process and Instrumentation Diagrams (P&IDs) illustrating all equipment and systems required for a fully-functioning Struvite Recovery System.

B13.2.2 P&IDs should:

- (a) be at least metric size A2;
- (b) indicate which components are not supplied by the Bidder and reference relevant item/part numbers from the list of components not supplied by the Bidder.
- (c) indicate any differences between the design for 2020 flows and the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5.

B13.3 List of Components Not Supplied by the Bidder

B13.3.1 The Proposal should include a List of Components Not Supplied by the Bidder but required to complete the Struvite Recovery System.

B13.3.2 The list should:

- (a) identify each component with a component/part number and brief description;
- (b) indicate the material of construction, required quantity and approximate unit price for each component;
- (c) indicate any differences between the design for 2020 flows and the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5.

B13.4 Project Schedule

B13.4.1 The Proposal should include a detailed Critical Path Method (CPM) Project Schedule of Contractor activities for the Work including:

- (a) resource assignments (key personnel), durations (weekly timescale) and milestone dates or events;
- (b) as a minimum, the following activities:
 - (i) administrative requirements pursuant to D16.2;
 - (ii) design;
 - (iii) submission, review and approval processes;
 - (iv) procurement of key materials and components;
 - (v) manufacture of Struvite Recovery System;
 - (vi) shipping of Struvite Recovery System;
 - (vii) inspection of installation, start-up and commissioning of Struvite Recovery System;
 - (viii) training of City staff.

B13.4.2 Use a relative time scale (number of Calendar Days) commencing with notice from the City exercising the option to proceed with the Work of each Item pursuant to D6.1.

B13.4.3 Use Microsoft Project or compatible project management software; print the schedule on 279 mm x 432 mm (11" x 17") paper.

B13.5 Capacity Upgrade Plan

B13.5.1 The Proposal should include a Capacity Upgrade Plan identifying the proposed changes, if any, to increase the capacity of the Struvite Recovery System from the initial capacity based on 2020 flows to a final capacity based on 2037 flows.

B13.5.2 The Capacity Upgrade Plan should:

- (a) be based on:
 - (i) an initial installation, able to accommodate 2020 flows, commissioned in 2019;
 - (ii) one upgrade, if required, to increase capacity to accommodate 2037 flows;
- (b) assume linear increase in flows to 2037;
- (c) describe the timing, nature and estimated cost of the proposed upgrade;
- (d) identify by reference to the BoQ (see B13.7), any differences between the components for the design for 2020 flows and the components for the proposed upgrade;
- (e) identify the minimum and maximum flows and loads for the initial installation based on 2020 flows and those for the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5.

B13.6 System Characteristics

B13.6.1 The Proposal should include a Systems Characteristics describing how the Struvite Recovery System will function.

B13.6.2 Describe the pre-digestion phosphorus release process and the effectiveness of the process including:

- (a) any differences in the system for the initial installation based on 2020 flows and for the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5;
- (b) the impact of variable flow rates and phosphorus loads on effectiveness;
- (c) the impact of temperature on effectiveness;

- (d) chemicals required or the volatile fatty acid requirements for the pre-digestion release of phosphorus. Describe the relationship between quantity of added chemicals and/or volatile fatty acid and the effectiveness of pre-digestion phosphorus release.

B13.6.3 State the effectiveness of phosphorus removal and the guaranteed maximum phosphorus content of the process effluent. Identify factors which may affect effluent quality.

B13.7 Bill of Quantities

B13.7.1 The Proposal should include a priced Bill of Quantities (BoQ) listing of all components proposed to be provided as part of Item No. 1 – Supply and Delivery of Struvite Recovery System.

B13.7.2 The BoQ should:

- (a) identify each component with a component/part number and brief description;
- (b) indicate the material of construction, required quantity and unit price for each component.
- (c) indicate any differences between the design for 2020 flows and the upgrade proposed in the Capacity Upgrade Plan pursuant to B13.5.

B13.8 Technical Data

B13.8.1 The Proposal should include Technical Data, e.g., catalogue cut sheets, for each component proposed to be supplied by the Bidder.

B13.8.2 Technical Data should:

- (a) be identified with the corresponding BoQ component/part number;
- (b) provide sufficient detail to demonstrate compliance with Specifications.

B13.9 Project Methodology

B13.9.1 The Proposal should include a detailed description of the Bidder's proposed Project Methodology for the Work including:

- (a) the Bidder's proposed activities during each stage of the Work including:
 - (i) design;
 - (ii) submission, review and approval of submittals;
 - (iii) procurement of key materials and components;
 - (iv) manufacture of Struvite Recovery System;
 - (v) supervision of installation, start-up and commissioning of Struvite Recovery System;
 - (vi) training of City staff;
 - (vii) warranty period;
 - (viii) post-warranty period;
 - (ix) purchase and removal of Struvite;
 - (x) marketing and sales of Struvite.
- (b) the Deliverables, Goods and/or services to be provided at each stage of the Work;
- (c) a communications plan to promote effective collaboration between the Contractor, Subcontractors, the Contract Administrator and the City;
- (d) any assumptions and interpretations of the scope of Work;
- (e) the Bidder's understanding of the constraints that will affect the Work;
- (f) any information to be provided, or activities to be performed by the City;
- (g) a description of the proposed end use for the Struvite removed pursuant to Item No. 2 – Purchase and Removal of Struvite including a marketing and sales plan (if applicable).

- (h) a description of the Bidder's proposed quality assurance and quality control program for the Work.

B13.10 Project Resources

B13.10.1 The Proposal should include a description of the proposed Project Resources for the Bidder and any proposed Subcontractors including:

- (a) years in business;
- (b) average annual volume of work in the following activities:
 - (i) design and/or supply of Struvite recovery systems;
 - (ii) purchase and removal of Struvite;
- (c) number of employees.
- (d) an organization chart for the Bidder's project team;
- (e) qualifications of key members of the Bidder's project team, including :
 - (i) name;
 - (ii) current employer;
 - (iii) proposed role;
 - (iv) responsibilities;
 - (v) core capabilities and/or technical skills;
 - (vi) education/training;
 - (vii) recent experience (up to the last 4 projects) including:
 - project description;
 - role;
 - responsibilities;
 - achievements.

B13.11 Intellectual Property Agreements

B13.11.1 Further to C6.15 and D10, the Proposal should include a copy of any proposed agreement(s) for the use of intellectual property that may be required for the Work.

- (a) the mandatory requirements identified in D10;
- (b) the rights and responsibilities of the City and the owner of the intellectual property.

B13.11.2 If the proposed agreement(s) require(s) the City to pay any royalties or licence fees to the Contractor, such amounts shall be included in the Contract Unit Price for Item No. 1 – Supply and Delivery of Struvite Recovery System and/or Item No. 2 – Purchase and Removal of Struvite.

B13.11.3 If the proposed agreement(s) require(s) the City to pay any royalties or licence fees to a third party, the Bidder should include the amount(s) in Form O: Operating Costs.

B13.12 Agreement for Purchase and Removal of Struvite

B13.12.1 The Proposal should include a draft of the Bidder's proposed Agreement for Purchase and Removal of Struvite including:

- (a) the mandatory requirements identified in E2;
- (b) the rights and responsibilities of the City and the Contractor including:
 - (i) requirements for quality control inspection and testing of Struvite;
 - (ii) standards for acceptance, rejection and payment adjustments for Struvite;
 - (iii) procedures for measurement and payment.

B14. QUALIFICATION

B14.1 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.

B14.2 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>

B14.3 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).

B14.4 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.

B14.5 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.

B15. DISCLOSURE

B15.1 This Request for Proposal has been developed on behalf of the City by AECOM Canada Ltd. The Work of the Contract arising out of this RFP forms a part of the Sewage Treatment Plant Upgrade and Expansion Program (the "Program") under which VVNA Winnipeg Inc. ("Veolia") provides advice and recommendations to the City on upgrades and capital modifications to the City's wastewater treatment facilities. Accordingly, Veolia has provided advice and recommendations to the City on the development and consistency of this RFP with the identified needs for the Program.

B15.2 Various organizations provided information with respect to this project. In the City's opinion, this relationship or association does not create a conflict of interest or will not likely create a perception of conflict of interest because of this full disclosure and related information. The organizations are:

- (a) Multiform Harvest Inc.;
- (b) Ostara Nutrient Recovery Technologies Inc.;
- (c) Paques Canada Inc.;
- (d) Stulz H+E GmbH.

B16. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

- B16.1 Proposals will not be opened publicly.
- B16.2 After award of Contract, the names of the Bidders and the Contract amount of the successful Bidder 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/>
- B16.3 To the extent permitted, the City shall treat all Proposals as confidential, however the Bidder is advised that any information contained in any Proposal 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.

B17. IRREVOCABLE OFFER

- B17.1 The Proposal(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.
- B17.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Bidders and these Bidders shall be bound by their offers on such Work for the time period specified in Paragraph 10 of Form A: Proposal.

B18. WITHDRAWAL OF OFFERS

- B18.1 A Bidder may withdraw his/her Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B18.1.1 Notwithstanding C21, the time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.
- B18.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Bidder's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.
- B18.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Proposal until after the Submission Deadline has elapsed;
 - (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Bidder's authorized representatives named in Paragraph 11 of Form A: Proposal; and
 - (c) if the notice has been given by any one of the persons specified in B18.1.3(b), declare the Proposal withdrawn.
- B18.2 A Bidder who withdraws his/her Proposal after the Submission Deadline but before his/her offer has been released or has lapsed as provided for in B17.2 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.

B19. INTERVIEWS

- B19.1 The Contract Administrator may, in his/her sole discretion, interview Bidders during the evaluation process.

B20. NEGOTIATIONS

- B20.1 The City reserves the right to negotiate details of the Contract with any Bidder. Bidders are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B20.2 The City may negotiate with the Bidders submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Bidders without being obligated to offer the same opportunity to any other Bidders. Negotiations may be concurrent and will involve each Bidder individually. The City shall incur no liability to any Bidder as a result of such negotiations.
- B20.3 If, in the course of negotiations pursuant to B20.2 or otherwise, the Bidder amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Bidder from the Proposal as originally submitted.

B21. EVALUATION OF PROPOSALS

- B21.1 Award of the Contract shall be based on the following evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Request for Proposal or acceptable deviation therefrom (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B14 (pass/fail);
 - (c) estimated life cycle cost – Forms B, N and O, and Bidder Supplied Documents: Bidder's Drawings, Process and Instrumentation Diagrams, List of Components Not Supplied by the Bidder, Project Schedule, Capacity Upgrade Plan, and System Characteristics (40%);
 - (d) previous installations – Form P (pass/fail and 25%);
 - (e) project methodology–Bidder Supplied Document: Project Methodology (2%);
 - (f) project resources - Bidder Supplied Document: Project Resources (2%);
 - (g) project schedule - Bidder Supplied Document: Project Schedule (1%)
 - (h) system characteristics – Bidder Supplied Documents: System Characteristics, Bill of Quantities and Technical Data (pass/fail and 20%);
 - (i) terms and conditions of intellectual property agreement(s) (if any) – Bidder Supplied Document: Intellectual Property Agreement(s) (1%)
 - (j) terms and conditions of agreement for purchase and removal of Struvite – Bidder Supplied Document: Agreement for Purchase and Removal of Struvite (pass/fail and 9%);
 - (k) economic analysis of any approved alternative pursuant to B6;
- B21.2 Further to B21.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal 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 Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B21.3 Further to B21.1(b), the Award Authority shall reject any Proposal submitted by a Bidder who does not demonstrate, in his/her Proposal, in other information required to be submitted, during interviews or in the course of reference checks, that he/she is responsible and qualified.
- B21.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B21.1(a) and B21.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.

- B21.5 Further to B21.1(c), the estimated life cycle cost will be estimated considering the net present value (NPV) of:
- (a) Evaluated Bid Prices for Items No. 1 and 2;
 - (b) construction and installation costs;
 - (c) operation and maintenance costs;
 - (d) capacity upgrade costs, if applicable (see B13.5).
- B21.5.1 Evaluated Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices, adjusted by the estimated change pursuant to the price adjustment mechanism on Form N: Price Adjustment Mechanism.
- B21.5.2 Prices based on Alternative 2 - Indexed Price will be evaluated considering the most recent 5 years of historical data and trend analysis for the indices.
- B21.5.3 Prices based on Alternative 3 - Bidder's Price Adjustment Mechanism will be evaluated considering the most recent 5 years of historical data and trend analysis for any proposed index.
- B21.5.4 The quantity of Struvite to be removed will be the City's estimated available quantity adjusted by the Bidder's proposed recovery rate based on the System Characteristics for a five (5) year period following Satisfactory Process Performance (Form 104).
- B21.5.5 Further to B21.1(c), in the event that a unit price is not provided on Form B: Prices, the City may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B21.5.6 Construction and installation costs will be the City's estimate of the costs to:
- (a) design and construct a suitable facility to house the Struvite Recovery System based on the Bidder's Drawings and the Process and Instrumentation Diagrams;
 - (b) procure components not supplied by the Bidder based on the List of Components Not Supplied by the Bidder;
 - (c) install the Struvite Recovery System, and commission the Struvite Recovery System, related equipment and the facility.
- B21.5.7 Operation and maintenance costs will be the City's estimate of the costs of consumables (e.g., process chemicals), energy consumption, maintenance parts and labour, and any other foreseeable expenses for twenty (20) years following Satisfactory Process Performance (Form 104) based on Form O: Operating Costs.
- B21.5.8 Capacity upgrade costs will be the City's estimate of the costs of changes, if any, to increase the capacity of the Struvite Recovery System from the initial capacity based on the Capacity Upgrade Plan, including related equipment purchases, construction and installation.
- B21.5.9 Net present value (NPV) will be calculated assuming:
- (a) a discount rate of 4.5% per annum;
 - (b) that the City exercises its option to proceed with the Work on January 2, 2018, and Satisfactory Process Performance (Form 104) is completed on January 2, 2020, unless the Bidder's Project Schedule indicates a longer lead time is required.
- B21.6 Further to B21.1(d), previous installations will be evaluated as follows:
- (a) the Bidder must list a minimum of two (2) previous installations meeting the mandatory criteria listed in B12.1.1 to achieve a "Pass" and be evaluated further;
 - (b) Bidders who achieve a "Pass" pursuant to B21.6(a) will be evaluated based on the degree to which previous installations demonstrate the additional criteria listed in B12.1.2.
- B21.7 Further to B21.1(e), project methodology will be evaluated considering:

- (a) the effectiveness and efficiency of the proposed methodology;
 - (b) the suitability and sustainability of the proposed end use of Struvite removed pursuant to Item No. 2 - Purchase and Removal of Struvite.
- B21.8 Further to B21.1(f), project resources will be evaluated considering:
- (a) the suitability of the organizational structure and the qualifications of the Bidder's personnel in relation to the proposed methodology;
- B21.9 Further to B21.1(g), project schedule will be evaluated considering
- (a) the feasibility of the proposed schedule;
- B21.10 Further to B21.1(h), system characteristics will be evaluated as follows:
- (a) Bidders must meet the mandatory requirements identified in the Specifications listed in E1 to achieve a "Pass" and be evaluated further;
 - (b) Bidders who achieve a "Pass" pursuant to B21.10(a) will be evaluated based on the degree to which the Bidder's proposed systems provide features which are advantageous to the City.
- B21.11 Further to B21.1(i), terms and conditions of the intellectual property agreements will be evaluated as follows:
- (a) Bidders must meet the mandatory requirements listed in D10 to achieve a "Pass" and be evaluated further;
 - (b) Bidders who achieve a "Pass" pursuant to B21.11(a) will be evaluated considering the degree to which the Bidder's proposed terms and conditions are favourable to the City.
- B21.12 Further to B21.1(j), the terms and conditions for the purchase and removal of Struvite will be evaluated as follows:
- (a) Bidders must meet the mandatory requirements listed in E2 to achieve a "Pass" and be evaluated further;
 - (b) Bidders who achieve a "Pass" pursuant to B21.12(a) will be evaluated considering the degree to which the Bidder's proposed terms and conditions are favourable to the City.
- B21.13 This Contract will be awarded as a whole.
- B22. AWARD OF CONTRACT**
- B22.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B22.2 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 Proposals are determined to be responsive.
- B22.2.1 Without limiting the generality of B22.2, 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 Proposal 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.

- B22.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the most advantageous offer, in accordance with B21.
- B22.4 Upon award of the Contract, the City shall have an option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement. The purchase of the Struvite Recovery System and the subsequent Struvite purchase agreement are contingent on the NEWPCC upgrade project proceeding.

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 Request for Proposal 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*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. DEFINITIONS

D2.1 When used in this Request for Proposal:

- (a) **"BOD"** means biochemical oxygen demand;
- (b) **"Contractor's Drawings"** means drawings, diagrams, illustrations, schedules, performance charts, technical brochures and other data, digital or otherwise, which are to be created or provided by the Contractor and/or Subcontractor;
- (c) **"Deliverables"** means all reports, drawings, calculations, designs, plans, leading practices, specifications, and other data, information and all material utilized, collected, compiled, drawn and produced (including digital files) to carry out Design Services contemplated in this Contract;
- (d) **"Design Services"** means carrying out and doing of all things of every kind, either expressly or impliedly required, that are to be done by the Contractor in accordance with the terms of this Contract and Appendices and Schedules attached hereto and includes all Design Services, testing, analysis, equipment, matters and things necessary for or incidental to the fulfilment of the requirements of the Contract, and all Changes in Work which may be approved as herein provided;
- (e) **"Installation Contractor"** means the Person(s) contracted by the City to construct the facility, and install the equipment and materials supplied under this Contract;
- (f) **"Manufacturer"** means the Person(s) responsible for the manufacture and fabrication of equipment provided to the City for the completion of the Work;
- (g) **"Manufacturer's Representative"** means a trained serviceman empowered by the Manufacturer to provide installation, testing, and commissioning assistance to the City with respect to the Work;
- (h) **"ML/d"** means megalitres per day;
- (i) **"PLC"** means programmable logic controller;
- (j) **"Proposal"** means the documents and other things, including but not limited to forms contained in the Proposal Submission, which must be completed or provided and submitted by the Submission Deadline in order to constitute a responsive offer;
- (k) **"Proposal Submission"** means that portion of the Request for Proposal by that name which contains forms to be included in the Proposal;
- (l) **"Request for Proposal"** means the Proposal Submission, the Bidding Procedures, the General Conditions, the Supplemental Conditions, the Specifications, the Drawings and all addenda; **"Struvite"** means magnesium ammonium phosphate hexahydrate ($MgNH_4PO_4 \cdot 6H_2O$);
- (m) **"Struvite Recovery System"** or **"SRS"** means an integrated package of equipment as described in Section 46 07 13 – Packaged Struvite Recovery System, and related Sections of the Specifications;

- (n) **"System Integrator"** means the Person(s) responsible for PLC programming for the project and may be the City, the Contract Administrator, the Installation Contractor, or another contractor.

D2.2 In the General Conditions, replace:

- (a) "Bid" with "Proposal";
- (b) "Bid Submission" with "Proposal Submission"; and
- (c) "Bid Opportunity" with "Request for Proposal".

D3. BACKGROUND

D3.1 The City of Winnipeg has three wastewater treatment plants; North End Water Pollution Control Center, (NEWPCC), South End Water Pollution Control Center (SEWPCC) and West End Water Pollution Control Center (WEWPCC). Currently sludges from the WEWPCC and the SEWPCC are trucked to the NEWPCC for processing and disposal. A brief description of each facility is as follows:

- (a) WEWPCC: The WEWPCC is the City's smallest wastewater treatment plant currently treating an average annual flow of approximately 35 ML/d. The WEWPCC is a biological nutrient removal facility which removes phosphorus in the effluent to below 0.5 mg/L without the use of chemicals. Thickened sludge fermented primary sludge, and thickened waste activated sludge (WAS) are stored and trucked to the NEWPCC on a daily basis for further biosolids processing. The average concentration of sludge trucked from the WEWPCC to the NEWPCC is approximately 3 percent solids concentration.
- (b) SEWPCC: The SEWPCC is the City's second largest wastewater treatment plant currently treating an annual average flow of approximately 75 ML/d. The facility is a pure oxygen activated sludge facility that removes carbonaceous BOD and suspended solids. The City is currently upgrading the SEWPCC to a biological nutrient removal facility (Integrated Fixed Film Activated Sludge), which will remove nitrogen and phosphorus in the effluent to approximately 0.5 mg/L without the use of chemicals. As part of the expansion, it is anticipated that both the fermented primary sludge and secondary waste activated sludge will be thickened to 15 percent solids concentration and trucked to the NEWPCC for further processing.
- (c) NEWPCC: The NEWPCC is the City's largest wastewater treatment plant currently treating an annual average flow of approximately 170 ML/d. The facility is a pure oxygen activated sludge facility that removes carbonaceous BOD and suspended solids. Solids processing is achieved by mesophilic anaerobic digestion followed by centrifuge dewatering and landfilling. The City is planning to upgrade the NEWPCC to biological nutrient removal in the future, however, final a decision as to the process configuration has not yet been made. The City will also be upgrading their solids processing stream and is considering the addition of thermal hydrolysis.

D3.2 As part of the proposed upgrades for the City's wastewater treatment facilities, the Province of Manitoba has mandated that the City of Winnipeg achieve nutrient removal through biological nutrient removal technologies, minimizing the use of chemicals. The nutrients that are removed in the process must be recovered and recycled to the maximum extent possible (The Water Protection Act, Manitoba C.C.S.M. c. W65).

D3.3 Accordingly, the City is considering the addition of a Struvite manufacturing process at the NEWPCC whereby the nutrients will be captured and recycled.

D4. OBJECTIVES

D4.1 The objective of this RFP and the resulting Contract is to meet the regulatory requirements imposed by the Province of Manitoba (Water Protection Act, Manitoba C.C.S.M. c. W65) to

recover the nutrients from a pre-digestion phosphorus release process and from digester recycle streams under controlled conditions and produce Struvite with sufficient purity and physical characteristics that it can be recycled at a cost that is economically acceptable to the City.

D5. SCOPE OF WORK

D5.1 The Work to be done under the Contract shall consist of:

- (a) design of a Struvite Recovery System;
- (b) supply and delivery of components of the Struvite Recovery System;
- (c) provision of services in support of:
 - (i) the design and construction of facilities to house the Struvite Recovery System;
 - (ii) the installation and commissioning of the Struvite Recovery System;
 - (iii) the operation and maintenance of the Struvite Recovery System;
- (d) purchase and removal of Struvite produced by the Struvite Recovery System for a period of five (5) years following the successful installation and commissioning of the Struvite Recovery System;

as more fully described in the Specifications (see Section 01 11 00).

D5.1.1 The Struvite purchase agreement may be extended for one (1) additional term of five (5) years by mutual agreement.

D6. OPTION TO PURCHASE

D6.1 Upon award of the Contract, the City shall have an option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement, and will proceed in stages as follows:

- (a) Shortly before deciding to exercise its option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement, the City will review design parameters for the Struvite Recovery System including but not limited to flow volumes and phosphorus loads.
- (b) Based on its review of design parameters, the City may require the Contractor to provide Design Services to reconfigure or otherwise adjust the preliminary design(s) upon which the award of Contract was based. If requested by the City, such Design Services will be deemed a Change in Work and the Contract Price shall be adjusted in accordance with C7.4(b) and, to the extent possible, Bill of Quantities (see B13.7).
- (c) The City will design the facility to house the Struvite Recovery System.
- (d) The City, at its sole discretion, considering the availability of sufficient funds for the project as a whole, may exercise its option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement.

D6.1.1 If the City does not exercise its option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement by giving written notice to the Contractor by 4:00 p.m. Winnipeg time, December 31, 2020, it shall expire.

D6.1.2 The failure of the City to exercise the option shall not be deemed a Change in Work for the purposes of C7.5.

D7. PRICE ADJUSTMENT MECHANISM

D7.1 Further to C10.3, if the City exercises its option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement pursuant to D6.1, the Contract Price shall be adjusted in accordance with the price adjustment mechanism proposed by the Contractor (see B10).

D7.1.1 The following price adjustments are in addition to any change in Contract Price pursuant to C7, C10 and/or D6.1(b).

D7.2 Alternative 1 - Fixed Price

D7.2.1 If the Contract was awarded based on Alternative 1 - Fixed Price, no adjustment will be made to the Contract Price.

D7.3 Alternative 2 - Indexed Price

D7.3.1 If the Contract was awarded based on Alternative 2 - Indexed Price, the Contract Price shall be adjusted as follows:

Item No. 1 - Supply and Delivery of Struvite Recovery System

The Unit Price for Item No. 1 - Supply and Delivery of Struvite Recovery System shall be increased or decreased on the day that the option to purchase the Struvite Recovery System and enter into a Struvite purchase agreement is exercised in direct proportion to the increase or decrease in Machinery and equipment price index (MEPI) between 2014Q2 and the last quarter for which the index is released at least ninety (90) Calendar Days before the option is exercised.

For example, if the option to proceed with the Work is exercised January 2, 2018, unit price(s) would be calculated as follows:

$$CUP_{JAN\ 2018} = BUP \times MEPI_{2017Q2} \div MEPI_{2014Q2}$$

where:

- (a) "CUP_{JAN 2018}" is the Contract Unit Price effective January 2, 2018.
- (b) "BUP" is the Bid Unit Price.
- (c) "MEPI" means the Statistics Canada Producer Price Index, Table 327-0042 - Machinery and equipment price index (MEPI), domestic and imported by industry of purchase based on the North American Industry Classification System (NAICS) Geography = Canada, Machinery and equipment, domestic and imported = Total domestic and imported, Industry of purchase = Utilities (<http://www5.statcan.gc.ca/cansim>).
- (d) "MEPI_{2017Q2}" is the value of MEPI for the second quarter of 2017. Notwithstanding that MEPI for the most recent quarters are subject to revision, the value of MEPI released ninety (90) Calendar Days before the option(s) is exercised shall be used.
- (e) "MEPI_{2014Q2}" = 108.3 and is the value of MEPI for the first quarter of 2014 upon which BUP is based.

If MEPI is unavailable, or is adjusted or redefined to alter its relationship to MEPI_{2014Q2}, the price adjustment shall be determined by the Contract Administrator, subject to the Contractor's rights pursuant to C19.

Item No. 2 - Purchase and Removal of Struvite

The Unit Price for Item No. 2 - Purchase and Removal of Struvite shall be increased or decreased on the first day of February of each year of the removal contract in direct proportion to the increase or decrease in the U.S. Department of Labor, Bureau of Labor Statistics, annual average Producer Price Index (PPI) for Superphosphates and other phosphate fertilizer materials, and the Bank of Canada annual average noon currency exchange rate, Canadian dollars per U.S. dollar between 2013 and the last calendar year preceding the effective date of the price adjustment. Notwithstanding that PPI for the most recent months are subject to revisions, the value of PPI on the date of first release of the annual average shall be used for future years.

For example, the unit price for February 1, 2020 to January 31, 2021 would be calculated as follows:

$$CUP_{FEB2020-JAN2021} = BUP \times (PPI_{2019P} \times US\$_{2019}) \div (PPI_{2013F} \times US\$_{2013})$$

where:

- (a) "CUP_{FEB2020-JAN2021}" means the Contract Unit Price effective February 1, 2020 to January 31, 2021.
- (b) "BUP" is the Bid Unit Price.

- (c) "PPI" means the U.S. Department of Labor, Bureau of Labor Statistics Producer Price Index, Not Seasonally Adjusted, Group 06 - Chemicals and allied products, Item 520271 Superphosphates and other phosphate fertilizer materials, Series ID WPU06520271 (<http://www.bls.gov/ppi>).
- (d) "PPI_{2019P}" is the annual average value of PPI for 2019. Notwithstanding that PPI is subject to revision for several months after first release, the preliminary (P) annual average first released will be used for each calculation;
- (e) "PPI₂₀₁₃" = 224.3 and is the value of the final (F) annual average PPI for 2013 upon which BUP is based;
- (f) "US\$" means the Bank of Canada, Financial Markets Department, Daily Noon Exchange Rate, Canadian dollars per U.S. dollar (<http://www.bank-banque-canada.ca>);
- (g) "US\$₂₀₁₉" = is the value of the annual average US\$ for 2019.
- (h) "US\$₂₀₁₃" = 1.02991480 and is the value of the annual average US\$ for 2013 upon which BUP is based.

If PPI and/or US\$ are unavailable, or are adjusted or redefined to alter their relationships to PPI₂₀₁₃ and US\$₂₀₁₃, the price adjustment shall be determined by the Contract Administrator, subject to the Contractor's rights pursuant C19.

D7.4 Alternative 3 – Bidder's Price Adjustment Mechanism

- D7.4.1 If the Contract was awarded based on Alternative 3 – Bidder's Price Adjustment Mechanism, the Contract Price shall be adjusted in accordance with said price adjustment mechanism.
- D7.4.2 If the Bidder's Price Adjustment Mechanism becomes inapplicable for any reason including the discontinuation or alteration of an index, the price adjustment shall be determined pursuant to Alternative 2 - Indexed Price.
- D7.5 Further to C7.5.1, a reduction in Contract Price resulting from a price adjustment mechanism shall not be considered in calculating the aggregate reduction in the Contract Price for the purposes of C7.5.

D8. CONTRACT ADMINISTRATOR

- D8.1 The Contract Administrator is AECOM Canada Ltd., represented by:

Mr. Keith Sears, PhD., P.Eng.
Senior Water/Wastewater Engineer, Water
Telephone No.: 204 928-8335
Facsimile No.: 204 284-2040

- D8.2 Proposal Submissions must be submitted to the address in B7.11.

D9. NOTICES

- D9.1 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

D10. INTELLECTUAL PROPERTY, CONFIDENTIALITY AND NON DISCLOSURE

- D10.1 All Deliverables, with the exception of the materials and information in the possession of the City prior to the commencement of the Work, are the property of the Contractor except as hereinafter provided.

- D10.2 Upon completion of the Design Services or termination of this Contract, all of the Deliverables shall be delivered by the Contractor to the City on demand by the City. The Contractor may retain copies of the Deliverables for its records.
- D10.3 The City or any third party granted a right through the City may use the Deliverables or any part thereof for:
- (a) the Work;
 - (b) any capacity upgrades pursuant to the Contractor's proposal or that the City, at its sole discretion, may implement at any time during or subsequent to the term of this Contract; or
 - (c) maintenance, repair, replacement or removal of the Work or any subsequent capacity upgrade at any time during or subsequent to the term of this Contract;
- without the Contractor's consent and without any payment or compensation except as hereinafter provided.
- D10.3.1 Further to C6.15, if the Deliverables include:
- (a) intellectual property is owned by a party other than the Contractor; and
 - (b) the agreement with the owner for the use of said intellectual property requires the payment of royalties or licence fees by the City as end user; and
 - (c) the agreement with the owner and the amount of royalties or licence fees have been disclosed in the Contractor's proposal; and
 - (d) the City has accepted the responsibility for paying said royalties or licence fees;
- the City will pay said royalties or licence fees in accordance with the terms of the agreement.
- D10.4 During the course of this Contract, the Contractor may acquire access to information concerning the City that is confidential. The Contractor shall not disclose or appropriate to its own use, or to the use of any third party, at any time during or subsequent to the term of this Contract, any confidential information of the City of which the Contractor has been or hereafter becomes informed, whether or not developed by the Contractor, including without limitation, information pertaining to this Work and the resulting report, if any, to be provided. This clause shall not apply to information the Contractor may necessarily be required to disclose or use in connection with the Design Services which it is obligated to perform under this Contract or as required by law.
- D10.5 The Contractor shall not make any statement of fact or opinion regarding any aspect of the Contract to the media or any member of the public without the prior written authorization of the Contract Administrator.
- D10.6 The Contractor hereby agrees to execute such other documentation as may be reasonably requested by the City to evidence their respective intellectual property rights in and to the Deliverables.

SUBMISSIONS

D11. AUTHORITY TO CARRY ON BUSINESS

- D11.1 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.

D12. INSURANCE

- D12.1 The Contractor shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D12.2 As a minimum, the Contractor shall, without limiting its obligations or liabilities under any other contract with the City, procure and maintain, at its own expense and cost, the following insurance policies:
- (a) Comprehensive or Commercial General Liability Insurance including:
 - (i) an inclusive limit of not less than \$5,000,000 for each occurrence or accident with a minimum \$5,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
 - (ii) all sums which the Contractor shall become legally obligated to pay for damages because of bodily injury (including death at any time resulting therefrom) sustained by any person or persons or because of damage to or destruction of property caused by an occurrence or accident arising out of or related to the Work or any operations carried on in connection with this Contract;
 - (iii) coverage for Products/Completed Operations, Blanket Contractual, Contractor's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, including loading and unloading, and Non-Owned Automobile Liability;
 - (iv) a Cross Liability clause and/or Severability of Interest Clause providing that the inclusion of more than one Insured shall not in any way affect the rights of any other Insured hereunder in respect to any claim, demand, suit or judgment made against any other Insured;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$5,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
 - (c) Professional Errors and Omissions Liability Insurance including an amount not less than \$2,000,000 per claim and \$2,000,000 in the aggregate.
 - (d) All risks property insurance coverage for any shipping, packaging, and storage materials provide by the Contractor. Such policy to include a waiver of subrogation rights against The City of Winnipeg.
- D12.2.1 The Contractor's Professional Errors and Omissions Liability Insurance shall remain in force during the performance of all services as outlined in D5.1 (a), (b), and (c) (i) and (ii) inclusive and for 24 months following completion of these services..
- D12.3 The policies required in D12.2(a) shall provide that the City is named as an Additional Insured thereunder and that said policies are primary without any right of contribution from any insurance otherwise maintained by the City.
- D12.4 The Contractor shall require each of its Subcontractors to provide comparable insurance to that set forth under D12.2(a).
- D12.5 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance for itself and for all of its Subcontractors, in a form satisfactory to the City Solicitor. Such Certificates shall state the exact description of the Work and provide for written notice in accordance with D12.10.
- D12.5.1 Provide certificate(s) of insurance for the policies required in D12.2(c) at least two (2) Business Days prior to the commencement of any work with respect to Design Services, but in no event later that ten (10) Business Days following the City's notice that it is exercising its option(s) to proceed with the Work.

- D12.5.2 Provide certificate(s) of insurance for the policies required in D12.2(a) and D12.2(b) at least two (2) Business Days prior to the commencement of any Work, but in no event later than ten (10) Business Days following the City's notice that it is exercising its option to proceed with the Work.
- D12.6 The Contractor may take out such additional insurance as it may consider necessary and desirable. All such additional insurance shall be at no expense to the City.
- D12.7 All insurance, which the Contractor is required to obtain with respect to this Contract, shall be with insurance companies registered in and licensed to underwrite such insurance in the Province of Manitoba.
- D12.8 If the Contractor fails to do all or anything which is required of it with regard to insurance, the City may do all that is necessary to affect and maintain such insurance, and any monies expended by the City shall be repayable by and recovered from the Contractor.
- D12.9 The failure or refusal to pay losses by any insurance company providing insurance on behalf of the Contractor or any Subcontractors shall not be held to waive or release the Contractor or Subcontractors from any of the provisions of the insurance requirements or this Contract. Any insurance deductible maintained by the Contractor or any Subcontractors under any of the insurance policies is solely for their account and any such amount incurred by the City will be recovered from the Contractor as stated in D12.8.
- D12.10 The Contractor shall not cancel, materially alter, or cause any policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the City.

D13. MATERIAL SAFETY DATA SHEETS

- D13.1 If the City exercises its option to proceed with the Work, the Contractor shall provide the Contract Administrator with one (1) copy of Material Safety Data Sheets (MSDS's) for each product to be supplied under the Contract at least two (2) Business Days prior to delivery to the Site but in no event later than seven (7) Calendar Days following notification that the City is exercising its option to proceed with the Work.
- D13.2 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.

D14. PERFORMANCE SECURITY

- D14.1 If the City exercises its option to proceed with the Work, 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.
- D14.1.1 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.

D14.1.2 For the purposes of the performance security, "Contract Price" shall mean the Contract Price for Item No. 1 – Supply and Delivery of Struvite Recovery System, and shall not include the Contract for Item No. 2 – Purchase and Removal of Struvite.

D14.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification that the City is exercising its option to proceed with the Work.

D15. DETAILED WORK SCHEDULE

D15.1 If the City exercises its option to proceed with the Work of one or more Items, the Contractor shall provide the Contract Administrator with a detailed work schedule for the Work of each such Item within seven (7) Calendar Days following notification that the City is exercising its option to proceed with the Work of said Item.

D15.2 The detailed work schedule shall be consistent with the project schedule submitted with the Contractor's Proposal (see B13.4).

D15.3 The detailed work schedule shall consist of the following:
(a) a critical path method (CPM) schedule for the Work;
(b) a Gantt chart for the Work based on the CPM schedule;
all acceptable to the Contract Administrator.

SCHEDULE OF WORK

D16. COMMENCEMENT

D16.1 The Contractor shall not commence any Work until he/she is in receipt of a notice from the City exercising the option to proceed with the Work of an Item D6.1 and authorizing the commencement of the Work.

D16.2 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 D11;
(ii) evidence of the workers compensation coverage specified in C6.16;
(iii) evidence of the insurance specified in D12;
(iv) the Material Safety Data Sheets specified in D13;
(v) the performance security specified in D14; and
(vi) the detailed work schedule specified in D15.
(b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

D17. DELIVERY

D17.1 The Struvite Recovery System shall be delivered to:
North End Water Pollution Control Centre
2230 Main Street
Winnipeg MB R2V 4T8

D17.1.1 Unless otherwise agreed in writing, goods shall be delivered pursuant to Incoterms DDP at NEWPCC.

D17.1.2 The City or the Installation Contractor will unload the goods at destination in accordance with the Contractor's instructions.

- D17.2 The Struvite Recovery System shall be delivered in accordance with the detailed work schedule submitted and approved pursuant to D15.
- D17.2.1 To ensure coordination with the Installation Contractor, the Contractor shall confirm the time and date of each delivery with the Contract Administrator, at least two (2) Business Days before delivery.
- D17.3 Goods shall be delivered between 8:30 a.m. and 4:30 p.m. on Business Days.
- D17.4 The Contractor shall be present at each delivery to assist in the inspection of the goods.

MEASUREMENT AND PAYMENT

D18. MEASUREMENT AND PAYMENT - SUPPLY AND DELIVERY OF STRUVITE RECOVERY SYSTEM

- D18.1 Invoices must clearly indicate, as a minimum:
- (a) the City's purchase order number;
 - (b) milestone achieved pursuant to D22.1(a);
 - (c) date milestone achieved;
 - (d) the amount payable with GST, MRST, and any applicable environmental handling charges/fees identified and shown as separate amounts; and
 - (e) the Contractor's GST registration number.

D19. MEASUREMENT AND PAYMENT - PURCHASE AND REMOVAL OF STRUVITE

- D19.1 Measurement and payment for Item No. 2 - Purchase and Removal of Struvite shall be in accordance with the terms of the Struvite purchase agreement:

D20. INVOICES

- D20.1 Further to C10, the Contractor shall submit invoices 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
- D20.2 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.
- D20.3 Proposal Submissions must be submitted to the address in B7.11.

D21. PAYMENT

- D21.1 Further to C10, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D22. PAYMENT SCHEDULE

- D22.1 Further to C10, payment shall be in accordance with the following payment schedule:
- (a) Item No. 1 - Supply and Delivery of Struvite Recovery System

Milestone	Percent Payable	
	Milestone	Cumulative
Approval of Shop Drawings	5%	5%
Equipment Delivery (Form 100) of all equipment	65%	70%
Completion of Installation (Form 102) of all equipment	10%	80%
Supply of Operations and Maintenance Manuals, and Satisfactory Training (Form T1)	5%	85%
Satisfactory Process Performance (Form 104)	10%	95%
Satisfactory Training (Form T2) and expiry of warranty period	5%	100%

(b) Item No. 2 - Purchase and Removal of Struvite: monthly;

D22.1.1 Further to D22.1(a), if Completion of Installation (Form 102) of all equipment and/or any subsequent milestone(s) are delayed for more than thirty (30) Calendar Days through no fault of the Contractor, payment(s) shall be made as if said milestone(s) were achieved thirty (30) Calendar Days following the scheduled date(s).

WARRANTY

D23. WARRANTY

D23.1 Notwithstanding C11.2, the warranty period shall begin on the date of Satisfactory Process Performance (Form 104) pursuant to Specification Section 01 91 31 and shall expire two (2) years thereafter, unless extended pursuant to C11.2 to C11.3, in which case it shall expire when provided for thereunder.

D23.1.1 Further to D23.1, if Satisfactory Process Performance is delayed through no fault of the Contractor, the warranty period shall expire thirty (30) months after the later of:

- (a) the scheduled date for Equipment Delivery (Form 100) of all equipment (see D17.2);
- (b) the actual date of Equipment Delivery (Form 100) of all equipment.

D23.1.2 For the purpose of Performance Security, the warranty period shall be one (1) year.

FORM H1: PERFORMANCE BOND
(See D14)

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 for

RFP NO. 506-2014

SUPPLY AND DELIVERY OF A STRUVITE RECOVERY SYSTEM

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 as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D14)

(Date)

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

RE: PERFORMANCE SECURITY – RFP NO. 506-2014

SUPPLY AND DELIVERY OF A STRUVITE RECOVERY SYSTEM

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 (2007 Revision), International Chamber of Commerce Publication Number 600.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

E1.1 These Specifications shall apply to the Work.

E1.2 The following are applicable to the Work:

<u>Specification No.</u>	<u>Specification Title</u>
01 11 00	Summary of Work
01 33 00	Submittal Procedures
01 43 33	Field Services
01 77 00	Closeout Procedures
01 78 00	Closeout Submittals
01 91 31	Commissioning Plan
01 91 41	Commissioning Training
26 05 00	Common Work Results for Electrical
40 05 00	Common Work Results for Process Integration
40 05 23	Common Work Results for Process Valves
43 05 00	Common Work Results for Liquid Handling Equipment
43 09 01	Factory Applied Protect Coatings
43 21 00	Process Pump General Requirements
43 22 05	Process Motors
46 07 13	Packaged Struvite Recovery System

E1.3 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. PURCHASE AND REMOVAL OF STRUVITE

E2.1 The Contractor shall purchase and remove the recovered Struvite from the Site.

E2.1.1 The Struvite purchase agreement shall be for an initial period of five (5) years following the date of Satisfactory Process Performance (Form 104).

E2.1.2 The Struvite purchase agreement may be extended for one (1) additional term of five (5) years by mutual agreement.

E2.2 The Contractor shall:

- (a) provide packaging materials and shipping pallets, and/or bulk containers suitable for the purpose at no cost to the City;
- (b) remove Struvite in filled packages on pallets and/or in bulk containers from the Site;
- (c) purchase and pay the City for the Struvite;
- (d) reuse, or sell for reuse, the Struvite.

E2.3 The City will:

- (a) place Struvite into packages and/or bulk containers;
- (b) store up to fifty (50) tonnes of Struvite on Site pending pick-up by the Contractor;
- (c) load Struvite onto the collecting vehicles.

E2.3.1 Unless otherwise agreed in writing, the Struvite will be delivered to the Contractor pursuant to Incoterms EXW (Ex Works) at NEWPCC. If requested by the Contractor, and provided that the Contractor's vehicles are compatible with the City's loading equipment, the City will load Struvite onto the collecting vehicles at the Contractor's risk.

- E2.3.2 Further to E2.3(b), the Contractor shall reimburse the City for any costs related to the storage and/or removal and disposal of Struvite in excess of the amount stipulated.
- E2.4 The City shall have full control of the operation of the Struvite Recovery System and shall not be obligated to produce or provide any amount of Struvite beyond that which the City, in its sole discretion, determines to be economically reasonable considering the overall operation of the NEWPCC.
- E2.5 The Contractor shall purchase and remove all Struvite produced by the Struvite Recovery System, and shall pay the City in accordance with the agreed upon terms and conditions.