



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 463-2017**

**REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR  
DESIGN AND CONTRACT ADMINISTRATION SERVICES FOR THE SOUTH END  
SEWAGE TREATMENT PLANT (SEWPCC) PRIMARY CLARIFIER TRAVELLING  
BRIDGES**

**Note to Proponents: Please be aware of revisions to B17.3**

**Proposals shall be submitted to:**

**The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

- B1.1 REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR CONDITION ASSESSMENT, DESIGN, CONTRACT ADMINISTRATION, AND ADDITIONAL SERVICES FOR THE SOUTH END SEWAGE TREATMENT PLANT (SEWPCC) PRIMARY CLARIFIER TRAVELLING BRIDGES

### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, March 28, 2018.
- 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 Project Manager 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. SITE INVESTIGATION**

- B3.1 The Project Manager or an authorized representative will conduct a Site Investigation of the primary clarifier area at the South End Sewage Treatment Plant (SEWPCC), located at 100 Ed Spencer Drive, Winnipeg, MB, on the following dates and times:
- (a) March 20, 2018 at 9:00 AM; and
  - (b) March 21, 2018 at 1:30 PM.
- B3.1.1 The same information will be provided at both presentations of the Site Investigation.
- B3.1.2 Proponents are requested to register for the Site Investigation by contacting the Project Manager identified in D2 before March 19, 2018 at 4:00PM.
- B3.1.3 Proponents are requested to meet at the reception area of the SEWPCC.
- B3.1.4 Proponents attending the Site Investigation outlined B3.1 are required to provide their own Personal Protective Equipment; at a minimum hard hat, CSA approved safety footwear, and safety glasses.
- B3.2 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Proponents attend.
- B3.3 The Proponent shall not be entitled to rely on any information or interpretation received at the site investigation unless that information or interpretation is the Proponent's direct observation, or is provided by the Project Manager in writing.

### **B4. ENQUIRIES**

- B4.1 All enquiries shall be directed to the Project Manager identified in D2.
- B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal, or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Project Manager of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.
- B4.3 If the Proponent is unsure of the meaning or intent of any provision therein, the Proponent should request clarification as to the meaning or intent prior to the Submission Deadline.
- B4.4 Responses to enquiries which, in the sole judgment of the Project Manager, require a correction to or a clarification of the Request for Proposal will be provided by the Project Manager to all Proponents by issuing an addendum.

- B4.5 Responses to enquiries which, in the sole judgment of the Project Manager, do not require a correction to or a clarification of the Request for Proposal will be provided by the Project Manager only to the Proponent who made the enquiry.
- B4.6 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the City's Project Manager. Failure to restrict correspondence and contact to the Project Manager may result in the rejection of the Proponents Proposal Submission.
- B4.7 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Project Manager in writing.

## **B5. CONFIDENTIALITY**

- B5.1 Information provided to a Proponent by the City or acquired by a Proponent 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 Project Manager. The use and disclosure of the Confidential Information shall not apply to information which:
- (a) was known to the Proponent before receipt hereof; or
  - (b) becomes publicly known other than through the Proponent; or
  - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposals to the media or any member of the public without the prior written authorization of the Project Manager.

## **B6. ADDENDA**

- B6.1 The Project Manager 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.
- B6.2 The Project Manager 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.
- B6.2.1 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>
- B6.2.2 The Proponent 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.
- B6.3 The Proponent 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.

## **B7. PROPOSAL SUBMISSION**

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal (Section A) in accordance with B8;
  - (b) Form B: Fees (Section B) in accordance with B9;
  - (c) Form P: Person Hours (Section E) in accordance with B12.
- B7.2 The Proposal should also consist of the following components:
- (a) Experience of Proponent and Subconsultants (Section C) in accordance with B10;
  - (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B11;

- (c) Project Understanding and Methodology (Section E) in accordance with B12; and
- (d) Project Schedule (Section F) in accordance with B13.

- B7.3 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.
- B7.4 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.
- B7.5 Proponents should submit one (1) unbound 8.5" x 11" original (marked "original") including drawings and six (6) copies (copies can be in any size format) for sections identified in B7.1 and B7.2.
- B7.6 Proposal format, including type of binding, number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their team.
- B7.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B22.1(a).
- B7.8 The Proposal shall be submitted enclosed and sealed in an envelope/package clearly marked with the RFP number and the Proponent's name and address.
- B7.9 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.10 Proposals shall be submitted to:  
The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1
- B7.11 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

**B8. PROPOSAL (SECTION A)**

- B8.1 The Proponent 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 Proponent is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
  - (b) if the Proponent is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Proponent is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Proponent 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 Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.
- B8.4 Paragraph 12 of Form A: Proposal shall be signed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, it shall be signed by the Proponent;
  - (b) if the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Proponent 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 Proponent 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 "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.
- B9. FEES (SECTION B)**
- B9.1 The Proponent shall utilize and submit Form B: Fees, making all required entries to summarize their Fee proposal for the proposed Services. The Proponent shall be responsible to verify and ensure the correctness of the associated submittals.
- B9.1.1 Notwithstanding C1.1(b), overhead costs or disbursements typically referred to as Type 1 disbursements or general expenses shall be included in the Hourly Rates.
- B9.2 The Proposal shall include a Fixed Fee for all disciplines and for the following phases identified in D7 Scope of Services and as listed in Form B: Fees:
- (a) Project Management,
  - (b) Preliminary Design Services, and
  - (c) Detailed Design Services
- B9.2.1 In addition to the Form B: Fees, proposals shall **also** include detailed description of the Fixed Fees for all disciplines according to the Scope of Services. Details shall include as a minimum:
- (i) the work activities and deliverables of the proposed Services;
  - (ii) the respective number of hours per work activity per task per each proposed individual;
  - (iii) name and role of proposed individuals;
  - (iv) the respective engineering discipline or management function as applicable;
  - (v) the associated disbursements; and
  - (vi) information relating to points (i) to (v) above shall be presented in a matrix form that allows easy understanding of their connections, and the associated Form B: Fees summaries shall be issued from a direct traceable compilation of the matrix input.
- B9.3 The Proposal shall include a Time Based Fee schedule calculated on a time basis for all disciplines and for the following phases identified in D7 Scope of Services and as listed in Form B: Fees:
- (a) Contract Administration Services

- (b) Commissioning Services
- (c) Operations Manuals
- (d) Post Construction Services

**B9.3.1 General Requirements for Time Based Fee Services:**

- (a) An estimated minimum number of hours is indicated in the RFP for each time-based line item in Form B to guide the Proponent in developing their fee proposal.
- (b) The estimated minimum number of hours indicated for each line item is based upon the Proponent utilizing experienced personnel who are familiar with the City's requirements and procedures performing the work. Additional hours may be required for less experienced personnel; fewer hours may be required for more experienced personnel.
- (c) Where the proposed number of hours deviates significantly from the estimated minimum number of hours indicated in the RFP, the Consultant should provide a detailed explanation of the fees and how the scope of work will be accomplished.
- (d) The fees proposed by the Proponent in Form B shall constitute an upset limit. Ensure the hours proposed are sufficient to complete the specified work.

**B9.3.2 Form B – Main Fee Schedule – Line 4 – Contract Administration Services**

- (a) Indicate the proposed hours and fees for Contract Administration Services as per D7.5.2, with resources allocated as per below:
  - (i) Project manager: 5% minimum
  - (ii) Intermediate and Senior engineers: 65% minimum
  - (iii) Administrative: 10% maximum
  - (iv) Other engineering / technical resources may be allocated for the remainder.
- (b) The estimated minimum number of hours to complete this work is 400 hours.

**B9.3.3 Form B – Main Fee Schedule – Line 5 – Commissioning Services**

- (a) Indicate the proposed hours and fees for Commissioning Services as per D7.5.3, with resources as per below:
  - (i) Project manager: 5% minimum
  - (ii) Commissioning Leader: 50% minimum
  - (iii) Administrative: 10% maximum
  - (iv) Other engineering / technical resources may be allocated for the remainder.
- (b) The estimated minimum number of hours to complete this work is 150 hours.

**B9.3.4 Form B – Main Fee Schedule – Line 6 – Operations Manuals**

- (a) Indicate the proposed hours and fees for development of the Operations Manuals as per D7.5.4, with resources allocated as per below:
  - (i) Project manager: 5% minimum
  - (ii) Senior engineers: 25% minimum
  - (iii) Administrative: 20% maximum
  - (iv) Other engineering / technical resources may be allocated for the remainder.
- (b) The estimated minimum number of hours to complete this work is 50 hours.

**B9.3.5 Form B – Main Fee Schedule – Line 7 – Post Construction Services**

- (a) Indicate the proposed hours and fees for Post Construction Services as per D7.6, with resources allocated as per below:
  - (i) Project manager: 5% minimum
  - (ii) Senior engineers: 15% minimum
  - (iii) Administrative: 10% maximum



- (iv) Other engineering / technical resources may be allocated for the remainder.
  - (b) The estimated minimum number of hours to complete this work is 50 hours.
- B9.3.6** In addition to the Form B: Fees, proposals shall also include detailed description of the Time Based Fees for all disciplines according to the Scope of Services. Details shall include as a minimum:
- (i) the work activities of the proposed Services;
  - (ii) the respective number of hours per work activity per task per each proposed individual;
  - (iii) name and role of proposed individuals;
  - (iv) the respective engineering discipline or management function as applicable;
  - (v) the applicable hourly rates;
  - (vi) the associated disbursements; and
  - (vii) information relating to points (i) to (vi) above shall be presented in a Matrix form that allows easy understanding of their connections, and the associated Form B: Fees summaries shall be issued from a direct traceable compilation of the Matrix input.
- B9.4** Adjustments to Fees will only be considered based on increases to the Scope of Services.
- B9.4.1** The City will not consider an adjustment to the Fees based on changes in the Project budget or the Final Total Construction Cost.
- B9.5** Notwithstanding C1.1(b), Fees shall include costs for out of town travel, related meals and accommodations for the duration of the Project and shall not be considered an Allowable Disbursement.
- B9.6** The Fee Proposal shall also include an allowance for Allowable Disbursements as defined in C1.1(b), but shall exclude the costs of any materials testing, soils and hazardous materials investigation during construction..
- B9.6.1** Further to B9.6, an allowable disbursement of \$15,000 for the cost of any associated sampling, materials testing, drilling, hazardous materials investigation, or implementation of advanced asset condition assessments as specified in D7.6.3 (e.g. use of more complex and costly non-destructive testing technologies beyond visual inspection (VT) only) has been included on Form B: Fees and Form P: Person Hours as the City's estimate of costs for these disbursements. These are to be included in the calculation of total fees proposed by the Proponent.
- B9.7** Notwithstanding C11.1, Fees submitted shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B9.8** Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B10. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)**
- B10.1** The Proposal should include general firm profile information, including years in business, average volume of work, number of employees and other pertinent information for the Proponent and all Subconsultants showing their ability to undertake the current work.
- (a) Information submitted relating to B10.1 should be limited to a maximum of fifteen (15) pages total for Proponent and Subconsultant.
- B10.2** Proposals should include details demonstrating the history and experience of the Proponent and Subconsultants in providing design, management of construction, and contract administration services on two (2) projects of similar complexity, scope and value.
- (a) If more than two (2) projects are submitted for B10.2, only the first two (2) referenced projects will be evaluated.

- B10.3** For each project listed in B10.2, the Proponent should submit:
- (a) A clear and comprehensive description of the project – Include project owner, project objectives, size, and other relevant information;
  - (b) A clear and comprehensive description of the role of the Consultant Services – Provide details of the Consultant Services and details of the role of the project / Subconsultant. This will be evaluated against the relevance to this project and the applicability to all disciplines to this work;
  - (c) Original and final cost – Provide this information separately for the value of the Scope of the Consultant Services assignment and the construction. Identify the amount of scope changes and the reasons for each of them;
  - (d) Design and construction schedule – Include anticipated project duration and actual project delivery duration, showing design and construction separately. Provide explanations if there are discrepancies between the projected and the actual durations; and
  - (e) Reference information (two current names with email addresses and telephone numbers per project).
    - (i) References should have worked directly on the projects described, such as the Project Manager or Contract Administrator.
    - (ii) References may be utilized to confirm the information provided in the proposal.
    - (iii) Other sources not named in references may be contacted to verify the work.
- B10.3.1** Where applicable, information should be separated into Proponent and Subconsultant project listings.

**B11. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)**

- B11.1** Describe your approach to overall team formation and coordination of team members.
- B11.1.1** Include an organizational chart for the Project.
- B11.2** Identify the following Key Personnel assigned to the Project:
- (a) Project Manager;
  - (b) Design Lead Process Mechanical
  - (c) Design Lead Structural
  - (d) Design Lead Electrical / Automation
  - (e) Lead Contract Administration
- B11.2.1** Multiple Key Personnel positions may be filled by one individual, however for evaluation purposes, be sure to identify the experience and qualifications for each role separately.
- B11.3** Submit the experience and qualifications of the Key Personnel assigned to the Project for projects of similar complexity, scope and value, including the principals-in-charge, the Consultants Representative, managers of the key disciplines and lead designers . Include educational background and degrees, professional recognition, job title, years of experience in current position, years of experience in design and construction, and years of experience with existing employer. Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B11.1.1.
- B11.4** For each person identified, list at least two (2) comparable projects in which they have played a primary role similar to that proposed for this Project. If a project selected for a key person is included in B10, provide only the project name and the role of the key person. For other projects provide the following:
- (a) Project name and owner;
  - (b) Description of project;
  - (c) Role of the person; and

- (d) Reference information (two current names with email addresses and telephone numbers per project).
  - (i) References should have worked directly on the projects described, such as the Project Manager or Contract Administrator.
  - (ii) References may be utilized to confirm the information provided in the proposal.
  - (iii) Other sources not named in references may be contacted to verify the qualifications, work experience, past projects, applicability of the role, etc.
- B11.4.1 If more than two (2) projects are submitted for B11.4, only the first two (2) referenced projects will be evaluated.
- B11.4.2 If a key person is assigned to multiple positions, a separate description is still required for each Key Personnel position. The comparable projects may be different for each position.
- B11.5 For each Key Personnel identified in B11.2, provide a detailed breakdown of hours proposed in the detailed fee breakdown as requested in B9.2.1 and B9.3.1.

## **B12. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)**

- B12.1 Describe your firm's project management approach and team organization during the performance of Services, so that the evaluation committee has a clear understanding of the methods the Proponent will use in the delivery of this Project.
- B12.2 Methodology should be presented in accordance with the Scope of Services identified in D7.
- B12.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project which include:
  - (a) Condition Assessment of existing structures and systems;
  - (b) Design of refurbishment/replacement works; and
  - (c) Contract Administration including Commissioning
- B12.4 Proposals should address:
  - (a) the team's understanding of the Scope of Services and the broad functional and technical requirements;
  - (b) the deliverables and the associated task requirements of the Project;
  - (c) the work activities and clearly identify all significant assumptions and interpretations;
  - (d) the proposed techniques to ensure quality and consistency, and elimination of subjectivity or bias from the condition assessments;
  - (e) the activities and services to be undertaken by the City and equipment and supplies to be provided by the City;
  - (f) any potential risks, along with their implications and possible mitigation measures, that could be encountered during inspection;
  - (g) any initiative and innovation to be used to perform the Services; and
  - (h) any other issue that conveys your team's understanding of the Project requirements.
- B12.5 The Proposal should include Form P: Person Hours for all disciplines and or phases identified in D7 Scope of Services.
  - B12.5.1 The total Fees on Form P: Person Hours should match Fees submitted in response to B9.
- B12.6 Proponents may use Form P: Person Hours or a table of their own design provided it includes all information requested in accordance with B12.5.

B12.7 For each person identified in B11.2, list the percent of time to be dedicated to the Project in accordance with the Scope of Services identified in D7.

**B13. PROJECT SCHEDULE (SECTION F)**

B13.1 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar project management software, complete with resource assignments (key designers), durations (weekly timescale) and milestone dates or events. The schedule should address each requirement identified in D7 Scope of Services.

B13.2 The Proponent's schedule should include critical dates for review and approval processes by the City and other organizations anticipated during the design and tendering phases of the Project. Reasonable times should be allowed for completion of these processes.

B13.3 Unless otherwise indicated, the review period for City deliverables should be a minimum of fourteen (14) Calendar Days and commensurate to the number of pages and complexity of the document.

B13.4 The Proponent should develop the most effectual schedule attainable using their expertise and experience to meet the requirements of the City. In circumstance that the Proponent's schedule contrasts with any milestone list in D12 Critical Stages, the Proponent should provide detailed commentary on their justification.

**B14. ELIGIBILITY**

B14.1 As a result of their involvement in the Winnipeg Sewage Treatment Program (WSTP) in relation to this Project, Veolia Water North America (VWNA) Winnipeg Inc. (Veolia) or their affiliates are not eligible to be a Proponent, participate as Team Members of a Proponent, or act as advisors to a Proponent or to any of its Team Members or to otherwise participate in the development and preparation of Proposals for the Project:

B14.2 A Proponent may be disqualified if any of the above-noted ineligible persons participate in the development and preparation of the Proponent's Proposal for Professional Consulting Services for South End Sewage Treatment Plant Primary Clarifier Travelling Bridges (RFP No. 463-2017).

**B15. DISCLOSURE**

B15.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B15.2 The Persons are:

- (a) Ovivo Inc.
- (b) A.J.P. Engineering Services

B15.3 Additional Material:

- (a) Field Service Report for mechanical condition assessment for November 24, 2015 inspection of SEWPCC Primary Clarifier Travelling Bridge Collector No. 3.
- (b) Structural Condition Assessment Report for December 11, 12, and 18, 2017 inspections of SEWPCC Primary Clarifier Travelling Bridge Collector No. 3.

**B16. QUALIFICATION**

B16.1 The Proponent 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 Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract;
- (c) have all the necessary experience, capital, organization, and equipment to perform the Services in strict accordance with the terms and provisions of the Contract;
- (d) have or establish and staff an office in Winnipeg for the duration of the Project.

B16.2 The Proponent and any proposed Subconsultant (for the portion of the Services 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>

B16.3 The Proponent and/or any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) have successfully carried out services for the programming; design, management of construction and contract administration for architectural and/or engineering projects of similar complexity, scope and value; and to those required for this Project; and
- (b) be fully capable of performing the Services 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); and
- (d) have the knowledge and resources to administer the requirements of The Workplace Safety and Health Act (Manitoba) during the construction works associated with this Contract; and
- (e) undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba.

B16.4 The Proponent shall submit, within three (3) Business Days of a request by the Project Manager, further proof satisfactory to the Project Manager of the qualifications of the Proponent and of any proposed Subconsultant.

B16.5 The Proponent shall provide, on the request of the Project Manager, full access to any of the Proponent's equipment and facilities to confirm, to the Project Manager's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Services.

## **B17. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

B17.1 Proposals will not be opened publicly.

B17.2 After award of Contract, the names of the Proponents and the Contract amount of the successful Proponent and their address(es) 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/>

B17.3 The Proponent is advised any information contained in any Proposal Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B17.3.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Proposal Submission identified by the Proponent as such in accordance with and by

reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B17.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of his/her submission upon written request to the Project Manager.

**B18. IRREVOCABLE OFFER**

B18.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.

B18.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 10 of Form A: Proposal.

**B19. WITHDRAWAL OF OFFERS**

B19.1 A Proponent may withdraw his/her Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B19.1.1 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.

B19.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Proponent's authorized representatives named in Paragraph 12 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.

B19.1.3 If a Proponent 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 Proponent's authorized representatives named in Paragraph 12 of Form A: Proposal; and
- (c) if the notice has been given by any one of the persons specified in B19.1.3(b), declare the Proposal withdrawn.

B19.2 A Proponent who withdraws its Proposal after the Submission Deadline but before its offer has been released or has lapsed as provided for in B18.2 shall be liable for such damages as are imposed upon the Proponent 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.

**B20. INTERVIEWS**

B20.1 The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

**B21. NEGOTIATIONS**

B21.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.

B21.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations

may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.

- B21.3 If, in the course of negotiations pursuant to B21.2 or otherwise, the Proponent 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 Proponent from the Proposal as originally submitted.

## **B22. EVALUATION OF PROPOSALS**

B22.1 Award of the Contract shall be based on the following evaluation criteria:

- (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: (pass/fail)
- (b) qualifications of the Proponent and the Subconsultants, if any, pursuant to B16: (pass/fail)
- (c) Fees; (Section B) 40%
- (d) Experience of Proponent and Subconsultant; (Section C) 10%
- (e) Experience of Key Personnel Assigned to the Project; (Section D) 20%
- (f) Project Understanding and Methodology (Section E) 15%
- (g) Project Schedule. (Section F) 15%

B22.2 Proponents are cautioned that a Proponent which fails to meet the 50% minimum threshold applicable to any of the evaluation criteria may, as a result, in the City's sole discretion, be prevented from becoming the successful Proponent.

B22.3 Further to B22.1(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.

B22.4 Further to B22.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is responsible and qualified.

B22.5 Further to B22.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.

B22.6 Further to B22.1(d), Experience of Proponent and Subconsultants will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested, in accordance with B10.

B22.7 Further to B22.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the experience and qualifications of the Key Personnel and Subconsultant personnel on Projects of comparable size and complexity, in accordance with B11

B22.8 Further to B22.1(f), Project Understanding and Methodology will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization, in accordance with B12.

B22.9 Further to B22.1(g), Project Schedule will be evaluated considering the Proponent's ability to comply with the requirements of the Project, in accordance with B13.

B22.10 Notwithstanding B22.1(d) to B22.1(g), where Proponents fail to provide a response to B7.2(a) to B7.2(d), the score of zero may be assigned to the incomplete part of the response.

B22.11 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B20.

## **B23. AWARD OF CONTRACT**

- B23.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B23.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be responsible and qualified, and the Proposals are determined to be responsive.
- B23.2.1 Without limiting the generality of B23.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Services;
  - (b) the prices are materially in excess of the prices received for similar services in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Services, 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.
- B23.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.
- B23.4 The City may, at its discretion, award the Contract in phases.
- B23.5 Notwithstanding Paragraph 6 of Form A: Proposal and C4, the City will issue a Letter of Intent to the successful Proponent in lieu of execution of a Contract.
- B23.5.1 The Contract documents as defined in C1.1(o)(ii) in their entirety shall be deemed to be incorporated in and to form a part of the Letter of Intent notwithstanding that they are not necessarily attached to or accompany said Letter of Intent.
- B23.6 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(o).
- B23.7 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Project Manager.
- B23.8 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Consultant will be paid for all Services rendered up to time of termination.



## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Consultant Services* (Revision 2017-03-24) are applicable to the Services of the Contract.
- C0.1.1 The *General Conditions for Consultant Services* 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](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 Consultant Services*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Consultant Services*, these Supplemental Conditions are applicable to the Services of the Contract.

#### D2. PROJECT MANAGER

D2.1 The Project Manager is:

Brian Station, P. Eng.

Telephone No. 204 986-7642

Email Address: bstation@winnipeg.ca

D2.2 At the pre-commencement meeting, the Project Manager will identify additional personnel representing the Project Manager and their respective roles and responsibilities for the Services.

D2.3 Proposal Submissions must be submitted to the address in B7.10.

#### D3. DEFINITIONS

D3.1 When used in this Request for Proposal:

- (a) "**AACE**" means AACE International (formerly the Association for the Advancement of Cost Engineering);
- (b) "**BO 976-2016**" means: Bid Opportunity for the South End Sewage Treatment Plant (SEWPCC) Upgrading / Expansion Project - Contract 4 – Site wide Mechanical, Electrical, Concrete and Site Works
- (c) "**Commissioning**" means a process by which equipment, a facility or a plant is tested to verify if it functions according to design and functional requirements;
- (d) "**CSMP**" means Consultant Services Management Plan;
- (e) "**DCS**" means Distributed Control System;
- (f) "**EGM**" means Engineers Geoscientists Manitoba;
- (g) "**HVAC**" means Heating, Ventilation, and Air Conditioning;
- (h) "**ILD**" means Instrument Loop Diagram;
- (i) "**LP**" means Liquid Penetrant examination;
- (j) "**MP**" means Magnetic Particle testing;
- (k) "**Native format**" means the original format from which a deliverable was generated (i.e. MS Word, MS Excel, AutoCAD, etc.);
- (l) "**NDT**" means Non-Destructive Testing;
- (m) "**OWAM**" means Oracle Work and Asset Maintenance;
- (n) "**P&ID**" means Process and Instrumentation Diagram;
- (o) "**PLC**" means Programmable Logic Controller;
- (p) "**Professional Engineer**" means an engineer registered in the Province of Manitoba;
- (q) "**Program Team**" means the team consisting of both City of Winnipeg and Veolia personnel;

- (r) "**RUL**" means Remaining Useful Life as a subjective estimate of the number of remaining years that an item, component, or system is estimated to be able to function in accordance with its intended purpose before warranting replacement;
- (s) "**SEWPCC**" means South End Sewage Treatment Plant;
- (t) "**Systems Integrator**" means a Person who makes different versions of automation hardware and software Work together, generally combining several subsystems to Work together as one large system;
- (u) "**UT**" means Ultrasonic Examination;
- (v) "**VT**" means Visual Inspection of equipment and structures using either or all of raw human senses such as vision, hearing, touch and smell and/or any non-specialized inspection equipment. Inspections requiring Ultrasonic, X-Ray, or Infra-red based equipment are not typically regarded as Visual Inspection as these inspection methodologies require specialized equipment, training and certification.;
- (w) "**WSTP**" means Winnipeg Sewage Treatment Program; and
- (x) "**WWD**" means Water and Waste Department

#### **D4. BACKGROUND**

- D4.1 The South End Sewage Treatment Plant (SEWPCC) is the second largest of the three (3) sewage treatment plants servicing the City of Winnipeg. The SEWPCC is located at 100 Ed Spencer Drive in Winnipeg, Manitoba. The SEWPCC has three (3) existing rectangular clarifiers which are used to provide for the initial primary treatment of the wastewater after grit removal and screening. Each primary clarifier generally consists of a rectangular concrete tank equipped with a travelling bridge mechanism to collect the sludge at the bottom of the tanks as well as the scum which floats at the surface. The three tanks are located to the west of the existing grit building. Each travelling bridge has a reversing motor mounted on the bridge for moving the unit back and forth in an east-west direction. The drive motor on Primary Clarifier Travelling Bridge No. 3 has two speeds for the west direction of travel. Each bridge mechanism is controlled from a local control panel mounted directly on the travelling bridge.
- D4.2 Primary Clarifier Travelling Bridge Nos. 1 and 2, each with a span of approximately ten (10) meters, were manufactured by Walker Process Equipment and installed in 1971 with some rehabilitation work undertaken approximately fifteen years ago. Primary Clarifier Travelling Bridge No. 3, with a span of approximately twenty (20) meters, was manufactured by Dorr-Oliver Canada Ltd. and installed as part of a plant expansion in 1992 with no major overhauls undertaken since that time. Plant operations staff have expressed concern over the number of travelling bridge components that are failing. For the festoon systems servicing all three (3) travelling bridges, the cables are near failure and the trolleys are not functioning efficiently. The local control panels were installed in 1992 and require significant ongoing maintenance.
- D4.3 Reliable operation of the primary clarifier system is critical to the operation of the plant. The City has determined that the mechanical, electrical, and automation components on each primary clarifier travelling bridge require replacement based on previous asset condition assessments, the functional requirements of the assets, general observations, and/or the vintage of the assets. Prior to finalizing refurbishment and replacement design requirements, the City requires a structural condition assessment of all three (3) existing primary clarifier travelling bridges.
- D4.4 The City of Winnipeg is currently upgrading and expanding the SEWPCC through a separate project to accommodate future wastewater flows and loadings to the plant and to provide enhanced treatment capability to address environmental and public health concerns and regulatory requirements. The primary clarifier area will receive minor work during this upgrading and expansion project but will have operational impacts due to mechanical process upgrades, HVAC upgrades, and migration of an existing DCS control system to a PLC based control system. The DCS migration of the Primary Clarifier process area will require manual operation of the process and auxiliary equipment while the DCS is being migrated.

D4.5 The City has engaged Veolia Water North America to provide advice to the City during the delivery of this Project. Veolia will be in attendance at meetings and workshops and assist with reviews throughout the Project. This does not relieve the Consultant of their obligation.

## **D5. RELEVANT DOCUMENTS**

D5.1 A list of existing structural, mechanical, electrical, P&IDs, and loop record drawings is attached as Appendix A.

D5.2 A report for a November 2015 mechanical condition assessment for Primary Clarifier Travelling Bridge Collector No. 3 is attached as Appendix B.

D5.3 A report for a December 2017 structural condition assessment for Primary Clarifier Travelling Bridge Collector No. 3 is attached as Appendix C.

D5.4 Drawings, specifications, plans, and other related information for the SEWPCC Upgrading/Expansion project can be viewed and copied from the Materials Management website link for City of Winnipeg Bid Opportunity (BO) 976-2016 South End Sewage Treatment Plant (SEWPCC) Upgrading / Expansion Project - Contract 4 – Sitewide Mechanical, Electrical, Concrete and Site Works at [http://www.winnipeg.ca/MatMgt/FolderContents.asp?FOLDER\\_NAME=976-2016&YEAR=2016](http://www.winnipeg.ca/MatMgt/FolderContents.asp?FOLDER_NAME=976-2016&YEAR=2016)

## **D6. GENERAL REQUIREMENTS**

D6.1 General Requirements of the Consultant

D6.1.1 The Consultant shall ensure that the Scope of Services is performed under direct supervision of a Professional Engineer.

- (a) All drawings, reports, recommendations and other documents involving the practice of professional engineering shall bear the stamp or seal and signature of a qualified engineer as required by the Engineering and Geoscientific Professions Act of the Province of Manitoba and By-laws of the Engineers Geoscientists Manitoba.
- (b) Final design documents irrespective of the level of design shall have an engineer's seal.
- (c) Other reports and documents not involving the practice of professional engineering, such as letters of information, minutes of meetings, may be originated and signed by other personnel engaged by the Consultant and accepted by the City.

D6.1.2 Progress estimates, completion certificates and other reports related to the technical aspects of this Project, shall be endorsed by the Consultant's Representative in a manner acceptable to the City.

D6.1.3 The Consultant shall, at a minimum, utilize the most current industry standard sustainable practices and conform to the latest codes, standards, regulations and legislative requirements in effect. The Consultant shall liaise with the City on the application of codes and standards.

D6.1.4 The Consultant shall not substitute or replace Key Personnel throughout the duration of the Project without the written approval of the Project Manager. Experience and qualification as specified in B11 shall be submitted for all requested substitute(s) and replacement(s).

D6.1.5 As sewage treatment is a continuous operation twenty four hours a day, seven days a week, the Consultant shall maintain close coordination between the Project and WWD engineering staff and plant operations staff so that process disruptions are minimized.

D6.1.6 The Consultant shall maintain close coordination with the SEWPCC upgrade and expansion project team to minimize conflict with the general contractor who will be working on the last major contract for the SEWPCC Upgrading / Expansion (i.e. Contract 4 under City of Winnipeg Bid Opportunity No. 976-2016). The general contractor for Contract 4 may begin mobilizing on site as early as 2017 Q4.

- D6.1.7 The Consultant shall comply with the following:
- (a) WSTP design standards, including but not limited to:
    - (i) WSTP Architectural Design Guideline – R00 (Appendix D),
    - (ii) WSTP Building Mechanical Design Guideline – R00 (Appendix E),
    - (iii) WSTP Civil Design Guideline – R00 (Appendix F),
    - (iv) WSTP Process Mechanical Design Guideline - RPB (Appendix G),
    - (v) WSTP Structural Design Guideline – R01 (Appendix H), and
    - (vi) WSTP Wastewater Treatment Facilities Automation Design Guide – R00 (Appendix I):
  - (b) Water and Waste Department (WWD) Identification Standard – R02 (Appendix J) – the Consultant shall request clarification from the Project Manager should undefined identification requirements be encountered;
  - (c) WSTP Project Document Numbering Standard (DOCUMENT NUMBER: PG-RC-PC-05) - R2016-02-02 (Appendix K);
  - (d) WWD Electrical Design Guide – R02 (Appendix L);
  - (e) WSTP Electrical and Instrumentation Standardization Clauses – R00 (Appendix M);
  - (f) WSTP Electrical and Instrumentation Standardization Summary – R04 (Appendix N);
  - (g) WWD Wastewater Historical Data Retention Standard – R00 (Appendix O)
  - (h) WWD Sewage Treatment Plant Tag Naming Standard – R00 (Appendix P);
  - (i) WWD HMI Layout and Animation Plan – R01 (Appendix Q);
  - (j) WSTP CHAIR Procedure (DOCUMENT NUMBER: CD-CP-PC-01) - R2013-04-25 (Appendix R);
  - (k) WSTP Contract Administration Manual (DOCUMENT NUMBER: CD-PM-PC-01) - R2016-03-07 (Appendix S);
  - (l) Operations Manual Specification - (DOCUMENT NUMBER: CD-CP-TO-06) - 2015-12-11; Final Rev A (Appendix T); and
  - (m) City Templates (Appendix U).
- D6.1.8 The Project Manager shall be notified of any conflict between the documents listed under D6.1.7 for resolution.
- D6.1.9 The Consultant and their Subconsultants, and contractors shall be aware of their obligation as stated in the Wastewater Services Division Environmental Preservation and Compliance statements and the Water and Waste Department Environmental Management Policy attached as Appendix V.
- D6.1.10 The Consultant shall coordinate and obtain approval/permit(s) where required, including but not limited to: Manitoba Hydro, MTS, and City Departments.
- D6.2 General Requirements for Project Deliverables
- D6.2.1 Project deliverables include but are not limited to:
- (a) condition assessment summary, preliminary design report, detailed design, specifications and drawings, cost estimates, and condition assessment methodology technical memorandum,
  - (b) preparation, tendering and contract administration of a separate Bid Opportunity to procure Construction Services for the required refurbishment and replacement work defined under the Preliminary Design phase of this Project
    - (i) WWD will be procuring the mechanical components required for the refurbishment and replacement work through a separate supply and delivery contract. The Consultant will be responsible the following tasks:

- ◆ Reviewing the list of materials associated with this separate supply and delivery contract,
- ◆ Commentating on the adequacy of the materials ordered by WWD, and
- ◆ Recommending any additional or revised materials required as a result of the Consultants work during the Preliminary Design phase. This review should take place approximately fifteen (15) weeks in advance of the Consultant posting the bid opportunity documents for the general construction contract and confirmed again during the Detailed Design phase).

- D6.2.2 The submittal format for Project deliverables is outlined in WSTP Project Documentation Requirements (Document Number CD-CP-TO-05) attached as Appendix W.
- D6.2.3 All Project Deliverables are to be delivered with a document lifecycle approach.
- D6.2.4 Where possible, all documents provided as PDF shall be in a single electronic file and searchable.
- D6.2.5 Unless otherwise indicated, the review period for Project deliverables shall be a minimum of two (2) weeks and correspond to the number of pages and complexity of the document. The Consultant shall indicate these review periods on the Critical Path Method schedule as outlined in B13 Project Schedule (Section F).
- D6.2.6 All deliverables shall have incorporated the Consultant's internal quality procedures before being submitted to the City.
- D6.2.7 The deliverables shall be submitted in a substantially completed draft format for review prior to submittal as a final document. All Deliverables shall be submitted to the Department's Project Manager.
- D6.3 General Requirements for Condition Assessment Summary Technical Memorandum and Preliminary Design Report
- D6.3.1 The City requires a Condition Assessment Summary Technical Memorandum and Preliminary Design Report to be prepared as part of the Preliminary Design Services. These documents shall include sufficient evaluation documentation, including but not limited to:
- (a) Background Information
  - (b) Review of Options
  - (c) Conclusions
  - (d) Recommendations
  - (e) Specifications and Drawings (as required)
  - (f) Schedules (as required)
  - (g) Cost Estimates
- D6.3.2 These documents shall be written as a standalone documents and submitted separately for review. All City review comments shall be incorporated into the final version of the respective documents.
- D6.4 General Requirements for Drawings
- D6.4.1 The drawings shall not be prepared using the City's GeoMedia and Google Earth screen captures and instead shall be prepared from the legal plans, certificates of title, as-built records and topographic survey.
- D6.4.2 All profile components of drawings shall be in natural scale.
- D6.4.3 Where existing systems are being modified, the existing drawings shall be modified or superseded rather than creating a new drawing only showing a limited portion of the new work.

- D6.4.4 The City will provide comments on the draft drawings. Comments shall be reviewed and incorporated into the final drawings.
- D6.4.5 All drawings shall be submitted in AutoCAD format version 2012 and in 11x17 hard copy format, unless otherwise specified.
- D6.5 General Requirements for Cost Estimates
- D6.5.1 Complete cost estimates as listed in D7 Scope of Services.
- (a) Submit all cost estimates using the Basis of Estimate Template WWD REV 20170308 found in Appendix X.
- D6.6 General Requirements for Photographs
- D6.6.1 All photographs submitted to the City as part of the Project shall include captions with the following information:
- (a) Date photograph was taken.
- (b) Location and orientation where the photograph was taken.
- (c) A brief description of what is depicted by the photograph.
- D6.7 General Requirements for Meetings
- D6.7.1 Schedule and chair Project meetings as listed in D7.2.2.
- (a) The Consultant shall prepare an agenda for all Project meetings with a copy to be sent to the City Project Manager at least two (2) business days prior to the meeting.
- (b) The Consultant shall record minutes in all meetings in which they attend. Minutes to be forwarded to all present within five (5) Business Days of the meeting.
- D6.7.2 All in-person Project related meetings will be held at the SEWPCC as much as possible for input or feedback from SEWPCC plant staff. Alternative meeting locations shall include WWD's main office located at 1199 Pacific Avenue (Winnipeg, Manitoba), the Consultant's office located in Winnipeg, or any alternative site agreed upon by the City and the Consultant.

## **D7. SCOPE OF SERVICES**

- D7.1 The Services required under this Contract shall consist of Professional Consulting Engineering Services required for the design, construction, commissioning and turnover of the Project in accordance with the following sections:
- (a) Project Management;
- (b) Preliminary Design Services;
- (c) Detailed Design Services;
- (d) Contract Administration Services
- (e) Commissioning Services; and
- (f) Post Construction Services
- D7.1.1 The Scope of Services outlined in D7 provides a brief description of the Services and is only to be considered a guideline for Proposal preparation. The Consultant is encouraged to use their initiative when developing their Proposal to refine the Scope of Services activities and propose additional or alternative activities which they consider appropriate or beneficial to the Project.
- D7.1.2 Unless otherwise stated, the document titled "Definition of Professional Consultant Services" and attached as Appendix Y shall be applicable to the provision of Professional Engineering services for this Project.

- D7.1.3 The travelling bridge components included in the Scope of Services for the Contract are those elements physically located above the normal top water line and not included in the SEWPCC Upgrading/Expansion project, specifically but not limited to:
- (a) Structural - bridge structural members, joints, welds, previous repairs
  - (b) Mechanical - rails, rail soleplates, cog tracks, wheel assemblies, and bridge drive systems
  - (c) Electrical - festoon systems (cables and trolleys), and
  - (d) Automation - local control panel including any Systems Integrator Work associated with replacement of travelling bridge instrumentation and controls
- D7.1.4 Those travelling bridge components which are outside the scope of the Contract are those elements physically located below the normal water line or included under the SEWPCC Upgrading/Expansion project), specifically but not limited to:
- (a) sludge and scum collector systems,
  - (b) primary sludge pumps,
  - (c) scum removal mechanism,
  - (d) scum hopper, and
  - (e) scum pumps
- D7.1.5 Any additional condition assessments deemed necessary by the Consultant may be completed at any time of the year provided the work is planned, coordinated, and scheduled with WWD engineering and operations staff, does not cause undue disruptions to either the wastewater process or the BO 976-2016 contractor, and follow all health and safety regulations and plant safe work procedures.
- D7.1.6 The target RUL for the travelling bridge components included in the Scope of Services for the Contract is a minimum period of ten (10) years. Feasible options for RULs of up to twenty-five (25) years, or maximum possible based on the results of available travelling bridge condition assessments, should be developed and evaluated to determine the most cost-effective option.
- D7.1.7 To minimize the risk of taking the plant out of compliance with the Environment Act Licence, any refurbishment or replacement work shall be undertaken and completed in typical dry weather flow periods of the year (i.e. Winter months of December to February inclusive). The initial construction sequence recommendation is to refurbish and commission the larger Primary Clarifier Travelling Bridge No. 3, and then proceed with similar work on the two smaller clarifiers (i.e. Nos. 1 and 2) in no particular order.

## **D7.2 Project Management**

- D7.2.1 Upon award of the Contract, the Consultant shall begin to prepare a comprehensive Consultant Services Management Plan (CSMP) detailing the process that will be applied during the provision of the Project Services. The Proponent shall allow for a minimum of twenty (25) hours to complete the CSMP. Requirements are outlined in WSTP Consultant Services Management Plan Minimum Requirements (Document Number CD-CP-PL-01) attached as Appendix Z. WSTP Sample Consultant Services Management Plan (Document Number PG-PM-TO-08) is attached as Appendix AA. Requirements of this document form a part of this Scope of Services. The Contract shall override the CSMP document requirements where indicated. For this assignment the following sections of the CSMP shall be modified as follows;
- (a) Section 1.1: The initial Consultant Services Management Plan shall be submitted from the Consultant to the City for approval within four (4) weeks of the award of the Contract.
  - (b) Section 2.2.1: The Consultant shall provide a list of expected risks and mitigations as part of their Proposal. The Consultant shall attend and participate in an initial baseline risk workshop during the Project Definition Phase and complete a Risk Register in the



format outline in Appendix BB. The Consultant will update the Risk Register prior to the following minimum milestones:

- (i) finalization of D7.3.13 preliminary design report (PDR),
  - (ii) preparation of D7.4.9 Bid Opportunity document, and
  - (iii) finalization of D7.4.11 Project Commissioning Plan
- (c) Section 2.2.4: The Document Management System (DMS) will not be required for this assignment.
- (d) Section 2.3.2:
- (i) Submissions shall be made to the Project Manager at stages referred to in D7 Scope of Services.
  - (ii) Documents to be presented or reviewed in a meeting or workshop shall be issued a minimum of five (5) Business Days prior to the presentation.
  - (iii) For any document, the City requires a minimum of ten (10) Business Days for review or approval, unless otherwise noted in the Contract.
- (e) Section 2.3.6: Earned Value Analysis reporting and Estimate at Completion forecasting are not applicable to this project.
- (f) Section 3.1.3" HAZOP will not be required for this assignment unless the Consultant proposes material modifications to existing P&IDs.
- (g) Section 3.1.3: CHAIR will not be required for this assignment.
- (h) Value Engineering workshops are not required.

## D7.2.2

### Meetings

- (a) Attend meetings with the Department's Project Manager, the Program Team, and/or other City staff at the following stages:
- (i) pre-commencement: schedule and chair a Project kick-off meeting with the Program Team after award of the Project to review the CSMP, scope of work and Project team.
  - (ii) workshop with WWD operations staff to identify operational constraints, potential condition assessment activities, and potential construction issues/concerns.
  - (iii) initial risk review workshop with the Program Team.
  - (iv) upon completion of the draft condition assessment summary technical memorandum (with Program Team)
  - (v) upon completion of the final condition assessment summary technical memorandum (if necessary; with Program Team)
  - (vi) at a minimum of four (4) risk review workshops with the Program Team (i.e. at the beginning and prior to completion of the Preliminary Design Phase, prior to preparation of the Bid Opportunity document, and prior to finalization of the Project Commissioning Plan). The Consultant shall allow for three (3) hours for the initial risk workshop and one (1) hour for each of the three remaining risk workshops.
  - (vii) upon completion of the draft preliminary design report (with Program Team)
  - (viii) upon completion of the final preliminary design report (if necessary; with Program Team)
  - (ix) upon completion of the detailed design (with Program Team)
  - (x) upon completion of the Bid Opportunity documents (with Program Team)
  - (xi) pre-construction meeting (with Program Team, the General Contractor for the scope of work associated with the Contract, and the General Contractor from BO 976-2016)
  - (xii) weekly construction progress meetings (with Program Team and the General Contractor for the scope of work associated with the Contract)
  - (xiii) pre-commissioning meetings (one for each travelling bridge system)

- (xiv) meetings to confirm and certify Substantial Performance, Total Performance / warranty period commencement, and Final Acceptance / end of warranty period (with Project Manager and General Contractor)
- (b) Additional meetings between the Consultant, the Department's Project Manager and/or the Program Team may be required in the event of outstanding issues or disagreements between the Consultant and the City regarding any Project Deliverables.

### **D7.3 Preliminary Design Services**

- D7.3.1 Review existing drawings for structural, mechanical, electrical, and automation details including P&IDs, and ILDs (reference Appendix A attached).
- D7.3.2 Review report titled Field Service Report for SEWPCC Primary Clarifier Travelling Bridge No.3; authored by Ovivo Inc. and issued January 31, 2016 for onsite mechanical condition assessment work completed on November 24, 2015 (reference Appendix B attached).
- D7.3.3 Review report titled Structural Condition Assessment of Primary Clarifier Travelling Bridge Collector No. 3 at the South End Sewage Treatment Plant; authored by AJP Engineering Services and issued January 17, 2018 for onsite structural condition assessment work performed onsite on December 11, 12, and 18, 2017 (reference Appendix C attached).
- D7.3.4 Review relevant tender documents for City of Winnipeg Bid Opportunity No. 976-2016 for the SEWPCC Upgrading/Expansion project (reference [http://www.winnipeg.ca/MatMgt/FolderContents.asp?FOLDER\\_NAME=976-2016&YEAR=2016](http://www.winnipeg.ca/MatMgt/FolderContents.asp?FOLDER_NAME=976-2016&YEAR=2016) ) including but not limited to the following:
  - (a) drawings and specifications related to minor upgrades in the primary clarifiers (Area P),
  - (b) BO-976-2016-Appendix N – Process Control Narratives (Document Number A-0102-PPCN-P901 Process Mechanical, Area P, Primary Clarifiers),
  - (c) BO-976-2016-Appendix O – Functional Requirements Specifications (Document Numbers A-0102-AFRS-A001 General, Area A, Functional Requirements Specifications and A-0102-AFRS-P001 Primary Clarifiers , Area P, Process Functional Requirements Specifications),
  - (d) BO-976-2016-Appendix S - DCS Migration Plan and Exchange Tables (Document Number S0926-01CA-PLA-0001). Note that the Scope of Services for RFP 463-2017 does not include migration of the primary clarifiers DCS. The Scope of Services for RFP 463-2017 includes coordination with BO 976-2016 including design of new travelling bridge control panels which are compatible with the current Process Control System (PCS), and which will facilitate change over to the new PLC based PCS, and
  - (e) BO-976-2016-Appendix T - Manual Control Details (Document Number S0926-01CA-PRO-0003, Area P, Primary Clarifiers (CP-P820-1/2/3/4)). The need for the details provided in this document will depend on when the primary clarifier refurbishment and replacement work is undertaken.
- D7.3.5 The Consultant shall meet with the Program Team and identify their general strategy for completing the project.
- D7.3.6 The Consultant shall lead a workshop with SEWPCC operations staff to identify any operational constraints with planned condition assessment inspections or potential refurbishment and replacement construction.
- D7.3.7 The Consultant shall gather all necessary relevant data, drawings, and reports and perform any site investigations necessary to do the Work.
- D7.3.8 The Consultant shall define all travelling bridge components and related systems that meet the Project scope criteria.
- D7.3.9 Risk Review – Initial Workshop

- (a) The Consultant shall attend and participate in a Risk Workshop (estimated duration of approximately three (3) hours). The purpose of this workshop is for the Program Team to provide a review of the CSMP risk register process to the Consultant (if necessary) and for both Parties to brainstorm potential risks to the Project.
- (b) The Consultant shall summarize the information from the initial risk review workshop into WSTP Risk Register (Document Number PG-RM-TO-01) attached as Appendix BB.

#### D7.3.10 Condition Assessment Summary

- (a) For the purpose of the Work and Fees proposed for the Scope of Services for the Contract, the Consultant shall summarize the condition of the SEWPCC Primary Clarifier Travelling Bridge Collectors Nos. 1, 2, and 3 based on the following information:
  - (i) Structural
    - ◆ A detailed structural condition assessment to be developed by the Consultant in D7.6.3(a) is not required for the Work outlined in the Contract.
    - ◆ Review the previous structural condition assessment noted in D7.3.3.
    - ◆ The Consultant shall conduct a structural condition assessment of all support structures for the travelling bridge collectors based on visual inspection (VT). Support structures shall include but not be limited to the floors beneath the rails and wall sections where the festoon system is mounted).
    - ◆ Summarize the current condition for all travelling bridge structural components listed in D7.1.3(a).
    - ◆ Summarize the current condition of all support structures for the travelling bridge collectors and related systems.
  - (ii) Mechanical
    - ◆ A detailed mechanical condition assessment to be developed by the Consultant in D7.6.3(a) is not required for the Work outlined the Contract.
    - ◆ Review the previous mechanical condition assessment noted in D7.3.2.
    - ◆ Summarize the current condition for all travelling bridge mechanical components listed in D7.1.3(b).
  - (iii) Electrical and Automation
    - ◆ A detailed electrical and automation (instrumentation and controls) condition assessment to be developed by the Consultant in D7.6.3(a) is not required for the Work outlined the Contract.
    - ◆ Note any anecdotal evidence from operations staff and any observed concerns/issues with existing electrical and automation equipment.
    - ◆ Summarize the current condition for all travelling bridge electrical and automation components listed in D7.1.3(c) and D7.1.3(d).
  - (iv) For condition assessment work beyond inspections based solely on the VT NDT method, the City shall pay the Consultant from B9.6.1 Allowable Disbursements outlined in and listed in Form B: Fees and Form P: Person Hours.

#### D7.3.11 Risk Review

- (a) The Consultant shall meet with the Program Team to review and update the Project risk register prior to completion of the Preliminary Design Services and finalization of the preliminary design report (PDR).

#### D7.3.12 Schedule

- (a) Provide a preliminary level critical path schedule from Detailed Design to turnover.

- (i) The level of detail shall be such that it clearly conveys the significant activities related to the various Project components with their inter-dependencies.
  - (ii) The breakdown of the work shall be into logical phases to accommodate sewage treatment plant operations,
  - (iii) The schedule shall be configured suitable for use by Microsoft® Office Project 2010.
- (b) Indicate deliverables and milestones.
  - (c) Indicate sequence of construction, process shutdown schedules, including magnitude and duration, and Manitoba Conservation notification requirements, if applicable.
  - (d) Indicate commissioning and training requirements.
  - (e) Identify site constraints and develop installation strategies considering:
    - (i) Lead time for delivery of equipment,
    - (ii) Site access, and
    - (iii) Evaluation of overall impact on plant operations throughout construction

D7.3.13 The Consultant shall prepare a preliminary design report (PDR) which documents all of the following:

- (a) A summary for the overall condition assessment for the in scope travelling bridge and related components including:
  - (i) examination approaches utilized
  - (ii) assumptions made
  - (iii) inspection and testing results and observations
  - (iv) conclusions
  - (v) recommendations for future inspections and testing
- (b) A summary of all feasible refurbishment or replacement options.
  - (i) Organize options based on incremental remaining useful life of the in-scope travelling bridge and related components for period of between ten (10) years (minimum) and twenty-five (25) years (or maximum possible based on results from the overall condition assessment).
- (c) Preliminary designs, drawings, and specifications for the recommended refurbishment and replacement work,
- (d) An outline commissioning plan to provide a high level approach to commissioning and identify overall sequence and any constraints to commissioning that need to be addressed in the Detailed Design phase.
- (e) Schedule for the recommended refurbishment and replacement work including:
  - (i) A breakdown of the work into logical phases to accommodate sewage treatment plant operations, and
  - (ii) The schedule for the Consultant to complete the remaining Scope of Services outlined in D7.
- (f) Construction cost estimates to an accuracy level consistent with AACE Class 3 (-20% to +30%) for all recommended refurbishment and replacement work. The estimate shall be broken down into logical construction phases defined in D7.3.13(e)(i).

D7.3.14 The Consultant shall submit a draft copy of the PDR to the Project Manager two (2) weeks prior to a Preliminary Design review meeting scheduled by the Project Manager.

D7.3.15 The Consultant shall present and discuss their recommendations with the Program Team at the Preliminary Design review meeting. The Program team will provide feedback on the PDR and direction to the Consultant regarding overall refurbishment and replacement options to take forward to Detailed Design.

D7.3.16 Upon receipt of the Program Team's comments per the timelines outlined in the CSMP, the Consultant shall incorporate the Program Team's feedback and direction and submit the Final PDR within three (3) weeks.

#### **D7.4 Detailed Design Services**

##### **D7.4.1 General Requirements**

- (a) Provide a comprehensive set of detailed design documents and tender services to allow the City to engage a contractor to construct the work. The development of the Detailed Design shall be based upon the final Preliminary Design deliverables and recommendations.
  - (i) The Detailed Design shall be based on both existing process control narratives and functional requirement specifications for the SEWPCC primary clarifiers as well as those developed for the upgraded / expanded plant outlined in the documents available for City of Winnipeg Bid Opportunity 976-2016.
  - (ii) The Detailed Design shall address technical and operational issues, reliability and safety concerns, and all current and applicable code requirements.
- (b) The Detailed Design shall include all requirements including but not limited to: site development, civil, structural, architectural, process, HVAC, plumbing, mechanical, electrical, automation, temporary facilities and operational consumables.
- (c) Where necessary, conduct field investigations to verify existing conditions and to supplement available information.
- (d) Organize meetings with City staff to ensure all required information, issues, and concerns are accounted for.
- (e) Identify all permits necessary for construction.
- (f) Provide any other information applicable to the design.
- (g) Unless otherwise stated, the indicated deliverables and any other deliverables which, in the opinion of the Project Manager are typical of a Detailed Tender Package, shall be prepared by the Consultant. Delegation of deliverables to the contractor will not be accepted.
- (h) Ensure WSTP standards, such as color uniformity to the WSTP Paint Color Standard, are incorporated into the Detailed Design as outlined in D6.1.7(a) WSTP design standards.

##### **D7.4.2 Civil / Site**

- (a) Provide a comprehensive civil / site detailed design package, including but not limited to:
  - (i) Site plan drawings.

##### **D7.4.3 Temporary Construction Requirements (if required)**

- (a) Provide a comprehensive temporary construction requirement detailed design package, including but not limited to:
  - (i) Temporary construction work drawings.
  - (ii) Phasing drawings.
  - (iii) Temporary construction supports.

##### **D7.4.4 Structural (if required)**

- (a) Provide a comprehensive structural detailed design package, including but not limited to:
  - (i) Legend and general notes drawing(s).
  - (ii) Plan drawings.
  - (iii) Section and detail drawings.
  - (iv) Concrete reinforcing drawings.

- (v) Detail drawings showing hatches, guardrails, and other structural steel.
- (b) Provide structural design calculations and notes.

#### D7.4.5 Electrical

- (a) General Requirements
  - (i) Typical drawings will not be accepted for any wiring details, such as motor starter schematics.
- (b) Provide a comprehensive electrical detailed design package, consisting of, but not limited to:
  - (i) Provide detailed panel schedules for all panelboards. Indicate loads, wire sizes, breaker details, etc.
  - (ii) Provide electrical plan layouts of all equipment and components. Typical standard of acceptance for the scale is 1:50 or less.
  - (iii) Provide cable tray layout plan and section drawings, as required.
  - (iv) Provide motor starter / variable frequency drive schematics and connection diagrams.
  - (v) Provide interior and exterior panel layouts for all custom electrical panels.
  - (vi) Provide a detailed cable schedule of all new electrical cables.
- (c) The City will provide standard electrical testing and pre-commissioning forms for the contractor to complete.

#### D7.4.6 Automation

- (a) General Requirements
  - (i) Typical drawings will not be accepted for any wiring details, such as loop drawings or schematics.
- (b) Provide a comprehensive automation detailed design package, consisting of but not limited to:
  - (i) System architecture / block diagrams for the facility and communications to the DCS. Indicate all PLC controllers, remote I/O notes, and major networked equipment such as intelligent motor starters.
  - (ii) PLC I/O lists.
  - (iii) PLC module lists.
  - (iv) PLC I/O module wiring diagrams.
  - (v) Loop diagrams for all instrumentation loops.
  - (vi) Fieldbus segment drawings, as applicable.
  - (vii) Control panel interior and exterior layouts for all PLC cabinets.
  - (viii) Interior panel layouts for all power supply panels, automation device panels, networking panels, junction boxes, and other components of the automation system.
  - (ix) Instrument location plans. Include all automation equipment on plans, in addition to instrumentation.
  - (x) Instrument datasheets for all new and modified process instrumentation. Review the format of the datasheets with the City for approval prior to creation.
  - (xi) Automation power distribution schematics. A dedicated drawing is to be provided for each control panel.
  - (xii) Grounding riser diagrams.
  - (xiii) Conduit riser diagrams.
  - (xiv) Provide fieldbus network diagrams for all fieldbus networks.
  - (xv) Provide a cable schedule of all new automation cables.

- (xvi) Provide detailed radio and antenna installation drawings or fibre optic layout drawings, depending on the analysis and recommendations of the Preliminary Design phase.
- (c) Provide a detailed Functional Requirements Specification (FRS) for the PLC/HMI for each SEWPCC Primary Clarifier local bridge control panel, as applicable.
  - (i) Note that the PLC programming will be performed by a systems integrator engaged by the contractor, based on the FRS provided.
  - (ii) Provide the FRS in a format consistent with the WSTP Automation Design Guide.
  - (iii) Include applicable equipment in the FRS.
- (d) Provide a detailed FRS for any DCS modifications required to integrate each SEWPCC Primary Clarifier local bridge control panel.
  - (i) Note that the DCS modifications will be performed by City personnel based upon the FRS provided.
  - (ii) Provide the FRS in a format consistent with the WSTP Automation Design Guide.
- (e) The City will provide standard testing and pre-commissioning forms for the contractor to complete.

#### D7.4.7 Specifications

- (a) Provide a comprehensive specification package for all disciplines and the entire scope of work in NMS specification format. Ensure that the following are included:
  - (i) All submittal requirements.
  - (ii) All quality assurance requirements.
  - (iii) All commissioning requirements. Note that the Consultant is responsible for leading commissioning, however it is anticipated that the contractor will perform various tasks to assist with the commissioning efforts.

#### D7.4.8 Construction Drawings

- (a) Consultant shall follow WWD construction drawing standards. These standard are available on the "Guides and Manuals" page at the City of Winnipeg, Water and Waste Department, Department Information website at <http://www.winnipeg.ca/waterandwaste/dept/manual.stm#wastewater>, specifically:
  - (i) Computer Assisted Drafting (CAD)-Geographic Information System (GIS) Standards at [http://www.winnipeg.ca/waterandwaste/dept/cad\\_gis.stm](http://www.winnipeg.ca/waterandwaste/dept/cad_gis.stm), and
  - (ii) "Manual for the production of construction drawings" at <http://www.winnipeg.ca/waterandwaste/pdfs/dept/constructionManual.pdf>

#### D7.4.9 Bid Opportunity

- (a) Provide a Bid Opportunity document for the tender package, utilizing the appropriate City template from Materials Management. Identify and comply with all Materials Management policies and requirements.

#### D7.4.10 Construction Plan

- (a) Provide a construction plan that details the proposed construction sequence, schedule, and mitigation of site constraints. The plan shall clearly demonstrate how the work will be implemented while maintaining operation of the SEWPCC facility. The plan shall be suitable for both City and contractor use.
  - (i) The construction schedule for the SEWPCC primary clarifier travelling bridges refurbishment/ replacement works shall account for known plant operational constraints as well as coordination with the latest revision of the construction schedule for City of Winnipeg BO 976-2016.
  - (ii) The construction schedule for the SEWPCC primary clarifier travelling bridges refurbishment/ replacement works shall start and end during one continuous

dry-weather period of December to February to avoid or minimize any remobilization and restart over two separate Winter weather periods.

#### D7.4.11 Project Commissioning Plan

- (a) Prepare a Project Commissioning Plan to detail the commissioning processes, roles and responsibilities, commissioning specifications and objectives, procedures, verification and certification requirements and documentation and acceptance criteria for the Project.
  - (i) Note that the plan should show detailed planning, lists, and schedules, not merely a high level description of commissioning.
  - (ii) Clearly indicate the tasks required and the party responsible for each task.
  - (iii) Include all disciplines and coordination between the disciplines.
  - (iv) Include all pre-commissioning requirements.
  - (v) Integrate a Project training plan within the Project Commissioning Plan. Identify all operations and maintenance training requirements, responsible party (contractor, Consultant, supplier, etc.) and an outline of the content of each training session. As part of the commissioning process, the Consultant shall provide resources to train City personnel on any areas or gaps that are not addressed by the other planned training providers.
- (b) Ensure integration of contractor commissioning requirements into the Detailed Tender Package.

#### D7.4.12 Detailed Tender Package

- (a) The Detailed Tender Package shall include:
  - (i) Drawings from all disciplines;
  - (ii) Specifications;
  - (iii) Bid Opportunity document;
  - (iv) Construction Plan;
  - (v) Commissioning Plan;
  - (vi) Process Control Narrative(s), updates only as applicable;
  - (vii) Functional Requirement Specifications;
  - (viii) Equipment, I/O, PLC module, and other lists;
  - (ix) Applicable reference drawings of the existing site; and
  - (x) Any other applicable information required by the contractor.
- (b) Submit package as outlined in Appendix W Project Documentation Requirements.
  - (i) Intermediate review (60%) of the Detailed Tender Package is not required on a formal basis, however, the Consultant is encouraged to submit for review at an earlier stage for any individual components that may be of interest to the City or where City direction is required. Coordinate with the Project Manager as required.
- (c) The Consultant should allow for a four (4) week review period for the City to provide comments. This should be accounted for and shown in the proposal.
- (d) Upon receipt and implementation of the City's review comments, submit the Final Detailed Tender Package outlined in Appendix W Project Documentation Requirements.
- (e) Prepare detailed construction sequencing that addresses site constraints identified in D7.3.12(e).
- (f) Prepare detailed shutdown procedures. Include:
  - (i) Pre-Shutdown Requirements,
  - (ii) Operational Notifications - Include required notice periods, department contacts, notification details and responsibilities, including Environmental Standards,



- (iii) Contractor Requirements - Include scope of work, action required and responsibilities,
  - (iv) Schedule, and
  - (v) Operational Requirements - Include all process systems affected, action required and responsibility.
- (g) Attend a Detailed Design review meeting with the City and incorporate changes arising from that meeting.

**D7.4.13 Progress Meetings**

- (a) Throughout the Detailed Design phase, meet with City Steering Committee monthly to discuss progress, findings, obtain input from City personnel, and discuss design options.
- (b) These meetings shall be shown in the Consultant's Project schedule.
- (c) Additional formal meetings can be accommodated to suit the Consultant's requirements, and should be shown in the Consultant's Project schedule.

**D7.4.14 Class 1 Cost Estimate**

- (a) Provide a construction cost estimate consistent with AACE Class 1 (-5%, +10%) for the construction costs of the proposed work.
- (b) The cost estimate shall be provided a minimum of two (2) weeks prior to tender.

**D7.4.15 Detailed Design Notes and Calculations Package**

- (a) Prepare and submit a detailed design notes package including items such as structural, mechanical, and electrical design calculations related to process equipment and building services; process design calculations; instrumentation and process control design calculations; and detailed engineering calculations, drawings and criteria employed in the design(s).
  - (i) Submit package as outlined in Appendix W Project Documentation Requirements.
  - (ii) Provide Draft Detailed Design Notes and Calculations Package together with the Draft Detailed Tender Package to allow for review in parallel.

**D7.4.16 Tender Services**

- (a) After approval by the Project Manager, submit the Detailed Tender Package to Materials Management for public bidding.
  - (i) All tender packages shall be prepared and posted in accordance with the City of Winnipeg Materials Management Division requirements.
  - (ii) Coordinate review of the package with Materials Management and make changes as requested to the tender package.
- (b) Provide appropriate response to bidders and advice to the City during tender call and issue addenda to the contract documents as necessary.
- (c) Arrange for and lead bidder's site visit(s).
- (d) If required, coordinate and lead a pre-award meeting with contractor.
- (e) Complete a review, analysis, comparison, tabulation, calculation, and evaluation of the tenders received. Make recommendations for award of Contract.
  - (i) Submit a Letter of Recommendation, copies of the bids, a tender comparison sheet, and a tender tabulation as outlined in Appendix W Project Documentation Requirements.
- (f) Following tender close, submit Final Detailed Tender Package including all addenda as outlined in Appendix W Project Documentation Requirements.

**D7.4.17 Deliverables from the Detailed Design Phase shall include, but not be limited to:**

- (a) Detailed Tender Package;

- (b) Class 1 Cost Estimate; and
- (c) Detailed Design Notes and Calculations Package.

## **D7.5 Contract Administration**

### **D7.5.1 General Requirements**

- (a) Organize meetings with City staff to ensure all required information, issues, and concerns are accounted for.
- (b) The Consultant shall use the processes, procedures, forms and templates contained within the document WSTP Contract Administration Manual in Appendix S.
- (c) Use the appropriate City templates throughout the course of the Project, including but not necessarily limited to those in Appendix U City Templates.
- (d) All personnel provided by the Consultant for either non-resident or resident engineering Contract Administration work shall be experienced and qualified to perform the work.
- (e) Original photographic records shall have a minimum resolution of twelve (12) megapixel along with date and time stamps. Photos in reports may be reduced in scale. Provide original photos to the City upon request.
- (f) The City reserves the right to withhold payment of Consultant fees for additional Contract Administration services which result out of errors or omissions in the design work prepared by the Consultant.

### **D7.5.2 Contract Administration Services**

- (a) Refer to B9.3.2 for the City's estimated minimum number of hours for the Consultant to perform the Contract Administration Services.
- (b) Perform project management functions in accordance with the CSMP and City requirements.
- (c) Prior to construction, prepare and submit a written and photographic record of the physical condition of the work area, existing facilities, and structures sufficient to equip the City to provide valid evidence and relevant testimony in settlement of any claim involving the City by any court of law, or by any other party for damages thereto arising from the Project.
- (d) Conduct and chair a Project kickoff pre-construction meeting and record minutes with the contractor and the Program Team, in which the Consultant shall discuss:
  - (i) Insurance,
  - (ii) Communication, and
  - (iii) Safety, etc.
- (e) Make application to public agencies for necessary authorizations and permits, prepare and submit reports and drawings thereto, and appear before the same in support of all applications.
- (f) Provide five (5) complete sets of Tender Documents including addenda and drawings as per Appendix W Project Documentation Requirements to the contractor.
- (g) Prepare a detailed Vendor Document Requirements (VDR) list based upon the requirements of the drawings and specifications. The list shall in detail identify all contractor submittal requirements.
  - (i) Manage the VDR list and logs of contractor submittals.
  - (ii) Update and forward the VDR list and current logs of submittals to the contractor and Program Team.
- (h) Review and accept contractor submittals (i.e. shop drawings) supplied by the contractor or supplier. Each submittal shall be reviewed by a Professional Engineer.
- (i) Forward final contractor submittals to the City as per document Appendix W Project Documentation Requirements.

- (j) Review and report to the City regarding laboratory, shop and other tests conducted on materials and/or equipment.
- (k) Review and provide recommendations for requests for alternate materials and methods. No alternates shall be approved without written authorization from the City.
- (l) Consult and advise the City during the course of construction.
- (m) Provide the City with a copy of all significant correspondence relating directly or indirectly to the contract. These include correspondence originating from or distributed to, parties external to the Consultant. This shall be provided immediately following receipt or dispatch of same by the Consultant.
- (n) Keep a continuous record of Project activities including but not limited to daily reports, photographic record of construction work and equipment, Working Days, teleconferences, emails, inspections and observations sufficient to equip the City to provide valid evidence and relevant testimony in settlement of any claim involving the City by any court of law, or by any other party for damages thereto arising from the Project.
- (o) Monitor and manage the contractor's schedule.
- (p) Provide adequate and timely direction of field personnel by senior officers of the Consultant.
- (q) Review acceptability of inspection and test plans from contractors, vendors or manufacturers.
- (r) Coordinate and prepare proposed change notice (PCN) regarding the contractor scope of work as required. This may include the preparation of specifications and drawings for the PCN.
- (s) Coordinate and prepare Approved Contract Change (ACC) forms regarding the contractor scope of work as required and provide backup material to the Project Manager as requested.
- (t) Review and respond to contractor Request for Information (RFI)'s in a timely manner.
- (u) Prepare contractor site instructions / clarifications / directives as required.
- (v) Interpret technical aspects of contract as requested by the City.
- (w) Coordinate work with the General Contractor for BO 976-2016.
- (x) Coordinate, manage and lead construction shutdown and tie-in protocols where plant operation is impacted. Prepare detailed shutdown or tie-in protocols that detail out a schedule for the work, delegate responsibilities, and clearly identify all operational impacts and plans to address. Review operational and construction risks and plan risk mitigation measures as appropriate. Act as the interface between the contractor and City during the shutdowns and tie-ins.
  - (i) Base the construction shutdown and tie-in protocols on the procedures developed during the Detailed Design phase.
- (y) Allow for four (4) months of significant onsite construction activity.
- (z) Provide a weekly construction report during the course of construction. The weekly construction report shall include, but not be limited to:
  - (i) Working Days and days lost due to inclement weather during the course of the construction;
  - (ii) Written and photographic records of the construction, including construction progress; and
  - (iii) Provide brief descriptions of each photograph.
- (aa) Provide qualified personnel with appropriate discipline expertise to perform inspections of the construction, including but not limited to the following:
  - (i) Conduct inspection of construction sufficient to ensure that the construction carried out by the contractor is in conformance with the drawings and specifications, provide report thereof.

- (bb) Provide a specific construction inspection report for each inspection. The construction inspection reports shall be prepared by, or under the supervision of a Professional Engineer and contain appropriate detail to ascertain whether the construction meets the requirements of the drawings and specifications. The specific construction inspection reports shall be in addition to the daily construction reports.
- (cc) Witness quality control procedures implemented by the contractor.
- (dd) Provide reference line and elevation control points for the works and check the contractor's adherence.
- (ee) Arrange for and carry out of testing of materials utilized by the contractor.
  - (i) Notwithstanding C1.1(b), the cost to the Consultant for the provision of third-party testing, as authorized by the Project Manager, will be reimbursed as an Allowable Disbursement.
  - (ii) The Consultant shall ensure that selected third-party services are provided at competitive market rates.
  - (iii) Costs shall be substantiated by the provision of suitable documentation.
- (ff) Maintain current logs of the following and provide to the Project Manager on a weekly basis:
  - (i) A current log of all construction reports.
  - (ii) A current log of all specific construction inspections and corresponding reports.
  - (iii) A materials testing log.
- (gg) Promptly report to the City any significant and unusual circumstances.
- (hh) Prepare, update, maintain, and coordinate a deficiency list of all issues identified during inspections by the Consultant or the Program Team. Coordinate remediation of the deficiency list with the contractor.
- (ii) Coordinate and lead regular on-site review meetings with representatives of the contractor and Program Team.
  - (i) The typical frequency of meetings shall be weekly, although meeting frequency may vary based upon the level of construction activity.
  - (ii) Prepare and distribute comprehensive meeting minutes within two (2) Business Days. Update the meeting minutes with corrections from other parties.
- (jj) Promptly prepare, certify, and submit progress estimates to the City for payment to the contractor(s) for construction performed in accordance with the drawings and specifications.
  - (i) Act as Payment Certifier and administer all contracts as required under the Builder's Liens Act of Manitoba.
- (kk) Coordinate and lead a comprehensive, detailed inspection prior to Substantial Performance, including the contractor and the Program Team. Document and report on all issues identified and coordinate completion of the issues.
- (ll) Make a recommendation to the Project Manager when the contractor has achieved Substantial Performance and upon approval, prepare and issue a Certificate of Substantial Performance.
- (mm) Coordinate and lead a comprehensive, detailed inspection prior to Total Performance, including the contractor and the Program Team. Document and report on all issues identified and coordinate completion of the issues.
- (nn) Provide an appropriate recommendation in written form to the Project Manager when the contractor has achieved Total Performance and upon approval, prepare and issue a Certificate of Total Performance.

### D7.5.3 Commissioning Services

- (a) General Requirements

- (i) Refer to B9.3.3 for the City's estimated minimum number of hours for the Consultant to perform the Commissioning Services.
  - (ii) Provide comprehensive leadership to the commissioning of the works. The Consultant has the responsibility to ensure that all commissioning activities are carried out to allow for the delivery of a fully operational facility compliant and complete in every respect.
    - ◆ Provide a Commissioning leader appropriately qualified to lead the commissioning work. The Commissioning leader shall be a senior engineer with experience in commissioning Projects.
    - ◆ Provide all qualified resources and organization to perform commissioning related activities pertaining to the Consultant's scope.
  - (iii) Consult with and advise the City during the course of commissioning.
  - (iv) Coordinate with City Operations personnel as required. Ensure that City Operations personnel are always aware of the current commissioning status and any upcoming operational requirements or impacts.
  - (v) The Consultant is fully responsible for the planning and leadership of the overall commissioning activities. While the contractor and the City may perform specific commissioning tasks, this does not reduce or eliminate the Consultant's responsibilities. Schedule and coordinate all commissioning works in coordination with the contractor's schedule.
  - (vi) Review all commissioning records and ensure that the overall commissioning records demonstrate compliance to the specifications and overall Project design requirements.
    - ◆ Ensure all equipment and control system settings are documented
  - (vii) Monitor commissioning activities, witness and certify the accuracy of the reported results.
  - (viii) Sign-off on all commissioning and training records.
  - (ix) Ensure all Commissioning Team members have clear definition of their role and understanding of their responsibilities.
  - (x) Coordinate with the contractor to ensure appropriate measures regarding safety, health and environmental aspects are implemented throughout the commissioning activities.
  - (xi) Review commissioning documentation for performance, reliability, durability of operation, accessibility, maintainability, and operation efficiency under all conditions of operation.
  - (xii) Prepare agenda, lead and record minutes of the commissioning meetings.
  - (xiii) Manage the commissioning documentation.
  - (xiv) Ensure the commissioning process meets effluent licencing requirements. Anticipate any potential commissioning scenarios that impact on licensing compliance and, in conjunction with the Project Manager, liaise with the Wastewater Services with respect to commissioning activities.
- (b) Planning
- (i) The Consultant is fully responsible for the planning of the overall commissioning activities. This includes but is not limited to:
    - ◆ Update the Commissioning Plan prepared during the Detailed Design Phase and issue to all relevant parties.
    - ◆ Define the commissioning activities.
    - ◆ Develop commissioning procedures and protocols to fully commission the facility. Coordinate the review of the documents with the City and contractor, and update as required.
- (c) Pre-Commissioning
- (i) Pre-Commissioning activities will include the factory acceptance testing, on-site inspection, and testing of equipment incorporated into the Project.

- ◆ Records shall be generated for all pre-commissioning inspections and tests.
  - (ii) The Consultant is responsible to specify all pre-commissioning requirements as part of the Detailed Design.
  - (iii) The Consultant's responsibilities include but are not limited to:
    - ◆ Managing the overall pre-commissioning requirements and ensuring that all required pre-commissioning work is completed. Prepare and manage a master list of pre-commissioning requirements.
    - ◆ Witness the PLC and HMI Factory Acceptance Tests (FATs).
    - ◆ Witness a selected portion of the pre-commissioning tests (approximately a third).
    - ◆ Review all pre-commissioning records, including testing forms.
    - ◆ Organization and filing of all pre-commissioning records with the City.
  - (iv) The contractor is expected to be responsible for the execution of the majority of the pre-commissioning work, such as pre-start-up testing of equipment.
- (d) Training
- (i) Coordinate and manage training sessions for City personnel for the operation and maintenance of new facilities and equipment. This includes but not limited to planning and scheduling of training sessions, review of training procedures and training documents prepared by the contractor.
  - (ii) The Consultant is responsible for the overall packaging and quality assurance of the training program, although delivery of selected portions may be by the contractor or subcontractor.
  - (iii) Coordinate to ensure video records of each unique training session are provided to the City. Ensure acceptable and uniform standard of video quality.
  - (iv) In addition to the above, include in the Consultant's scope of work:
    - ◆ One two-hour classroom training session to provide Project overview training to City personnel. Train on overall operation and maintenance requirements. Address detailed training gaps that are not addressed by other training sessions. Provide appropriate hand-outs of the training material.
- (e) Process Commissioning
- (i) Be present on-site during commissioning and witness commissioning activities.
  - (ii) Start-up, test, verify and document that the travelling bridges and all associated controls perform as designed. Representative operating scenarios shall be tested.
- (f) Electrical Commissioning
- (i) Be present on-site during commissioning and witness commissioning activities.
  - (ii) Test, verify and document that the electrical system and all associated controls perform as designed. Test all operating scenarios.
- (g) Automation Commissioning
- (i) Be present on-site during commissioning and witness commissioning activities.
  - (ii) Test, verify and document that the automation system and all associated controls perform as designed. Test all operating scenarios.
- (h) Asset Data Schedule
- (i) Provide a comprehensive list of all maintainable assets along with associated data. This will be a spreadsheet in a format defined by the City for uploading into the City's Oracle Work and Asset Management (OWAM) system. It is expected that this document will be an amalgamation and reformatting of other information prepared and received by the Consultant.
- (i) Commissioning Handover Package

- (i) Compile and handover to the City all commissioning documentation, including but not limited to:
  - ◆ Commissioning plans and procedures,
  - ◆ Evidence of commissioning verification,
  - ◆ Deficiency reports and corrective actions taken,
  - ◆ Training material and records, and
  - ◆ Other commissioning documents.
- (ii) The compilation of all commissioning documentation shall be delivered in a comprehensive, organized electronic format with all files and directories structured for simple identification and searchability of the contents.

#### D7.5.4 Operations Manuals

- (a) Refer to B9.3.4 for the City's estimated minimum number of hours for the Consultant to perform the services associated with the Operations Manuals.
- (b) Include all hours required to coordinate and correct documentation provided by the contractor.
- (c) The City Operations team utilizes operations manuals as reference documents for the operation and maintenance of the facility. The operations manuals provide detailed documentation of the area process and its components, monitoring and control, operational and safety requirements, equipment data, maintenance requirements, etc.
- (d) Review, co-ordinate, and manage the submission of Operations Manuals prepared by the contractor.
- (e) Part A – Area Manual is to be developed or revised as required by the Consultant. It shall include, but not be limited to the following:
  - (i) Introduction indicating location of the facility and general description;
  - (ii) Facility layout diagram;
  - (iii) Safety and health hazards including hazard control to mitigate the safety and health hazards;
  - (iv) Site services - provide an overview of all site services including any restrictions or constraints that apply. Site services scope will include: electric supply, security, communications, etc.;
  - (v) Process description - provide a description of the process objective and a description of the process operation. Reference will be made to process flow diagrams, P&IDs, and control narratives where applicable. P&IDs will be included as applicable;
  - (vi) Design criteria - provide process design criteria for the specific unit process;
  - (vii) Operation and process control - provide process control narratives, including control philosophy in manual and automatic modes, use of manual controls, process control parameters and key control parameters, process trouble shooting guides, description of protection systems installed, emergency shut down and power failure procedures, sampling and analysis requirements. Key HMI screen shots will be used to illustrate operation and process control; and
  - (viii) Alarm and warning limits.
- (f) Part B – Operations and Maintenance Manual will be prepared by the contractor based upon specifications provided by the Consultant. The Consultant is responsible for reviewing and amending the information as appropriate to ensure that the manual is comprehensive to meet the requirements of the City. It shall include, but not be limited to the following:
  - (i) Brochures/catalogue excerpts of all components of the work,
  - (ii) Documentation of all test results,
  - (iii) Complete set of equipment and assembly drawings,
  - (iv) Manufacturer operations and maintenance manuals,

- (v) Installation, start-up, instructions for operations and maintenance,
  - (vi) Equipment settings and other applicable specific requirements,
  - (vii) Reviewed submittals (including shop drawings) of all equipment,
  - (viii) Certified factory test results,
  - (ix) As-built drawings for the complete installation, and
  - (x) Names, addresses, and telephone numbers of all major sub-contractors and suppliers.
- (g) Notwithstanding D7.5.4(e) and D7.5.4(f), given the limited changes for process equipment type and moderate automation upgrades envisioned for the Scope of Services for the Contract, and the fact that the process control narrative is not changing for the existing travelling bridge collectors, the Consult shall adhere to the following guidance when creating new Operations Manuals or making revisions to existing Operations Manuals:
- (i) Only the applicable sections of the Operations Manual Specification (Appendix T) shall be applied by the Consultant to new and/or existing Operations Manuals documentation.
  - (ii) The Consultant shall use existing Area Manuals as guidance for making revisions to these documents.
  - (iii) Based on available literature for any new equipment added to the travelling bridge collector systems, the Consultant shall bring forward all maintenance tasks associated with any new equipment and document same in the Operations and Maintenance Manual.
- (h) Requirements include:
- (i) All documents shall be text-searchable, and
  - (ii) Native versions of all documents produced by the Consultant are required.
- (i) Schedule the production of the Operations Manuals such that the draft version is issued as part of the commissioning / training activities, prior to Substantial Performance.
- (i) Allow a minimum of twenty-five (25) Business Days for the Program Team review of the manuals.
- (j) Submit final copies of the manuals as per the Project Documentation Requirements in Appendix W.

**D7.5.5** Deliverables from Contract Administration shall include, but not be limited to:

- (a) All Contract Administration documentation such as Meeting Minutes, RFIs, PCN, ACC, weekly construction reports, submittals, etc.,
- (b) Commissioning Handover Package,
- (c) Asset Data Schedule, and
- (d) Operations Manuals.

## **D7.6 Post Construction Services**

- (a) Refer to B9.3.5 for the City's estimated minimum number of hours for the Consultant to perform the Post Construction Services.

**D7.6.2** As-Built Drawings

- (a) Prepare and submit As-Built Drawings for the Project within one (1) month of Total Performance as outlined in Appendix W Project Documentation Requirements.
- (b) As-Built Drawings shall include contractor markups, contract change orders, RFI's, and Consultant markups from inspections of the work.
- (c) Submit one (1) draft electronic copy of the As-Built Drawings for City review prior to final issuance of the paper copies.



- (d) Upon receipt of the review comments, make required modifications. Submit final As-Built drawings in accordance with Appendix W Project Documentation Requirements.

#### D7.6.3 Condition Assessment Methodology

- (a) The Consultant shall investigate different non-destructive testing (NDT) methods beyond visual inspection and develop and recommend a detailed Condition Assessment Methodology for all structural, mechanical, electrical and automation (instrumentation and controls) elements for the primary clarifier travelling bridges and related systems. The Condition Assessment Methodology shall be based on the structure or equipment material type, material coating, orientation and extent, available access, any surface or specimen cleaning and preparation required, and site environmental conditions. The Consultant shall consider the following tasks, technologies, standards, and issues:
- (i) Conducting a topographical survey to establish level and alignment of existing structures and equipment
  - (ii) Use of applicable and appropriate NDT technologies and standards including but not limited to:
    - ◆ Visual (VT) inspection using qualified inspectors and technicians who have the visual acuity, experience, knowledge, and equipment to detect surface discontinuities,
    - ◆ Ultrasonic (UT) examination of welds based on the latest revision for ASTM E164 - Standard Practice for Contact Ultrasonic Testing of Weldments,
    - ◆ Liquid Penetrant (LP) examination based on the latest revision of ASTM E165 – Standard Test Method for Liquid Penetrant Examination, and
    - ◆ Magnetic Particle (MP) testing based on the latest revision for ASTM E709 – Standard Guide for Magnetic Particle Testing
    - ◆ Non-destructive testing (NDT) terminology based on the latest revision for ASTM E1316 - Standard Terminology for Non-destructive Examinations
    - ◆ Minimum requirements for agencies performing non-destructive testing based on the latest revision for ASTM E543 - Standard Specification for Agencies Performing Non-destructive Testing
  - (iii) List all limitations and advantages associated with the recommended NDT technologies.
  - (iv) Outline any knowledge, training, and/or certification requirements for condition assessment personnel.
  - (v) Evaluate any technical and operational issues, any reliability and safety concerns and applicable code requirements.
  - (vi) Reference any applicable ASME, ASNT, ASTM, CSA, or ISO standards.
  - (vii) Reference any applicable WSTP standards, guidelines, plans, procedures, or specifications included with the Contract.
- (b) Meet with the Program Team to provide a formal presentation and discuss condition assessment options prior to preparing the technical memorandum required in D7.6.3(e)
- (c) Provide an AACE Class 5 cost estimate per primary clarifier type for all inspections, testing, and examination to be included in the recommended condition assessment methodology required in (a).
- (i) Primary Clarifier Types
    - ◆ Type 1 = SEWPCC Primary Clarifier Travelling Bridge Collector No. 1 or 2 (e.g. galvanized steel structure, approximate ten (10) meter span, approximate fifty (50) meter rail travel)

- ◆ Type 2 = SEWPCC Primary Clarifier Travelling Bridge Collector No. 3 (e.g. aluminum truss structure, approximate twenty (20) meter span approximate fifty (50) meter rail travel)
  - (ii) Outline any additional costs associated with the condition assessment method(s) (e.g. mobilization, disbursements, etc.).
  - (iii) Include all cost information in the technical memorandum required in D7.6.3(e)
- (d) If required, produce specifications for appropriate scaffolding, platforms, lighting, safety equipment, etc. required for the condition assessment method(s) required in (a).
- (e) Prepare a technical memorandum detailing the researched condition assessment methods and make a recommendation for the most appropriate method(s) for the Project. The technical memorandum should outline how the condition assessment data will be used including a recommended and NDT industry generally acceptable condition grading scale.
  - (i) The Consultant should allow for a two (2) week review period for the City to provide comments.
  - (ii) Meet with the Program Team to review comments on the technical memorandum.
  - (iii) Upon receipt and implementation of the City's final review comments, submit a revised document within two (2) weeks.

#### D7.6.4 Warranty

- (a) Provide inspection services during the warranty period of the Contract on an as needed basis.
- (b) Coordinate the correction of warranty issues with the contractor and City.
- (c) Provide a detailed inspection of the Project with the contractor and the City prior to the end of the period of the contractor warranty period.
- (d) Coordinate and issue Certificate of Acceptance.

#### D7.6.5 Deliverables from Post Construction shall include, but not be limited to:

- (a) As-Built Drawings,
- (b) Condition Assessment Methodology Technical Memorandum complete with cost estimates per travelling bridge collector type, and
- (c) Certificate of Acceptance.

## SUBMISSIONS

### D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 The Consultant 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 Consultant does not carry on business in Manitoba, in the jurisdiction where the Consultant does carry on business, throughout the term of the Contract, and shall provide the Project Manager with evidence thereof upon request.

### D9. SAFE WORK PLAN

- D9.1 The Consultant shall provide the Project Manager with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D9.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg,

Corporate Finance, Materials Management Division website at  
<http://www.winnipeg.ca/matmgt/safety/default.stm>

## **D10. INSURANCE**

- D10.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D10.2 As a minimum, the Consultant 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 \$2,000,000 for each occurrence or accident with a minimum \$2,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
    - (ii) all sums which the Consultant 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 Services or any operations carried on in connection with this Contract;
    - (iii) coverage for Products/Completed Operations, Blanket Contractual, Consultant's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, 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 Consultant directly or indirectly in the performance of the Service. The limit of liability shall not be less than \$2,000,000 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:
    - (i) an amount not less than \$500,000 per claim and \$1,000,000 in the aggregate.
- D10.2.1 The Consultant's Professional Errors and Omissions Liability Insurance shall remain in force for the duration of the Project and for twelve (12) months after total performance.
- D10.3 The policies required in D10.2(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.
- D10.4 The Consultant shall require each of its Subconsultants to provide comparable insurance to that set forth under D10.2(a) and D10.2(c).
- D10.5 The Consultant shall provide the Project Manager with a certificate(s) of insurance for itself and for all of its Subconsultants, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Services, but in no event later than the date specified in C4.1 for the return of the executed Contract. Such certificates shall state the exact description of the Services and provide for written notice in accordance with D10.8.
- D10.6 The Consultant 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.
- D10.7 All insurance, which the Consultant 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.

D10.8 The Consultant 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.

## **SCHEDULE OF SERVICES**

### **D11. COMMENCEMENT**

D11.1 The Consultant shall not commence any Services until it is in receipt of a notice of award from the City authorizing the commencement of the Services.

D11.2 The Consultant shall not commence any Services until:

- (a) the Project Manager has confirmed receipt and approval of:
  - (i) evidence of authority to carry on business specified in D8;
  - (ii) evidence of the insurance specified in D10;
- (b) the Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting.

D11.3 The City intends to award this Contract by May 23, 2018.

### **D12. CRITICAL STAGES**

D12.1 The Consultant shall achieve critical stages of the Services for this Contract in accordance with the following requirements:

- (a) Provision of initial CSMP within four (4) weeks of assignment award (equates to June 20, 2018);
- (b) Preliminary Design Services, including review and approval by WWD, finalized within sixteen (16) weeks of assignment award (equates to July 18, 2018);
- (c) Detailed Design Services, including review and approval by WWD, finalized by within twenty-two (22) weeks of assignment award (equates to August 29, 2018);
- (d) Construction contract awarded within thirty-three (33) weeks of assignment award (equates to November 14, 2018); and
- (e) Construction Total Performance by March 13, 2019.