



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 785-2020

**PROFESSIONAL ENGINEERING CONSULTING SERVICES FOR DESIGN AND
CONTRACT ADMINISTRATION OF THE NEWPCC PRIMARY CLARIFICATION
UPGRADES**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 PROFESSIONAL ENGINEERING CONSULTING SERVICES FOR DESIGN AND CONTRACT ADMINISTRATION OF THE NEWPCC PRIMARY CLARIFICATION UPGRADES.

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, March 24, 2021

B2.2 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 Clarification Facility at the North End Sewage Treatment Plant (NEWPCC), located at 2230 Main Street, Winnipeg, MB, for each individual Proponent during the week of March 8-12, 2021. A virtual tour will be provided. If COVID-19 restrictions allow an in person site investigation, it will be by **appointment only** and for a **maximum of three (3) attendees** per Proponent to maintain current social distancing measures related to the COVID-19 pandemic. The tour will be approximately one hour in duration. Proponents are to contact the City Project Manager identified in D2 to inquire on the status of in person tours.

B3.1.1 Proponents are requested to register for the site investigation by contacting the Project Manager identified in D2, before 4:00pm on March 2, 2021.

B3.1.2 Proponents are requested to meet in the parking lot outside the reception area of the NEWPCC.

B3.1.3 Proponents attending the Site Investigation outlined in B3.1 are required to provide their own personal protective equipment; at a minimum hard hat, CSA approved safety footwear, safety vest, non-medical mask and safety glasses. Guidelines on how to safely use a non-medical mask are provided in Appendix 27.

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 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.

B4.4 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.

- B4.5 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.
- B4.6 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.
- B4.7 Any enquiries concerning submitting through MERX should be addressed to:
MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

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.
- B6.3 Addenda will be available on the MERX website at www.merx.com.
- B6.4 The Proponent is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.5 The Proponent shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.
- B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Project Manager indicated in D2.

B7. PROPOSAL SUBMISSION

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Bid/Proposal (Section A) in accordance with B8;
 - (b) Fees (Section B) in accordance with B9.
- 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) Form P: Person Hours in accordance with B9.
 - (d) Project Understanding and Methodology (Section E) in accordance with B12; and
 - (e) 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 Proposal format, 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 proposed solution.
- B7.6 The Proposal shall be submitted electronically through MERX at www.merx.com.
- B7.6.1 Proposals will **only** be accepted electronically through MERX.
- B7.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B24.1(a).
- B7.8 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: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/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: Bid/Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.
- B8.4 Paragraph 13 of Form A: Bid/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;
 - (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: Bid/Proposal should be entered 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 complete Form B: Fees.
- B9.2 The Proposal shall include a Fixed Fee for the following sections identified in the Scope of Services and as listed in Form B: Fees:
- (a) Project Management in accordance with D8;
 - (b) Preliminary Design in accordance with D9;
 - (c) Detailed Design & tender Services in accordance with D10;
 - (d) Post Construction Services in accordance with D13;
 - (e) Optional Services in accordance with D7.4
- 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:
- (a) the work activities and deliverables of the proposed Services;
 - (b) the respective number of hours per work activity per task per each proposed individual;
 - (c) name and role of proposed individuals;
 - (d) the respective engineering discipline or management function as applicable;
 - (e) the applicable hourly rates
 - (f) the associated disbursements;
 - (g) Information provided in B9.4, B9.5, B9.6, and B9.8; and
 - (h) information relating to (a) to (g) should 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.
 - (i) Proponents should use Form P: Person Hours or a table of their own design (matrix form) provided it includes information for all disciplines and all phases identified in the Scope of Services for all disciplines and all phases identified in the Scope of Services.
 - (ii) A sample of Form P: Person Hours can be found at <https://winnipeg.ca/matmgt/templates/information.stm>
 - (iii) The total Fees on Form P: Person Hours or table of their own design (matrix form) should match Fees submitted in response to B9.
 - (iv) For each person identified in B11.2, list the percent of the person's time to be dedicated to the Project in accordance with the Scope of Services.
- 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 the Scope of Services and as listed in Form B: Fees:
- (a) Contract Administration Services in accordance with D11;
 - (i) Resident Services in accordance with D11.3;
 - (ii) Non-Resident Services in accordance with D11.4; and
 - (b) Commissioning Services in accordance with D12;
- B9.3.1 General Requirements for Time-Based Fee Services:

- (a) An estimated minimum fee to complete the Resident Services task indicated in B9.3 is \$625,000. This is to guide the Proponent in developing their Fee proposal.
- (b) The Proponent should provide a detailed explanation of their Time-Based Fees based on how the task of the Scope of Services will be accomplished.
- (c) The Time-Based Fees proposed by the Proponent in Form B shall constitute an upset limit and shall be sufficient to complete the specified work.

B9.3.2 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:

- (a) the work activities of the proposed Services;
- (b) the respective number of hours per work activity per task per each proposed individual;
- (c) name and role of proposed individuals;
- (d) the respective engineering discipline or management function as applicable;
- (e) the applicable hourly rates;
- (f) the associated disbursements
- (g) Information provided in B9.4, B9.5, B9.6, and B9.8; and
- (h) information relating to B9.3.2 (a) to B9.3.2 (g) should 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.
 - (i) Proponents should use Form P: Person Hours or a table of their own design (matrix form) provided it includes information for all disciplines and all phases identified in the Scope of Services for all disciplines and all phases identified in the Scope of Services.
 - (ii) A sample of Form P: Person Hours can be found at <https://winnipeg.ca/matmgt/templates/information.stm>
 - (iii) The total Fees on Form P: Person Hours or a table of their own design (matrix form) should match Fees submitted in response to B9.
 - (iv) For each person identified in B11.2, list the percent of the person's time to be dedicated to the Project in accordance with the Scope of Services.

B9.4 The Proposal shall include \$200,000.00 in the Form B: Fees for cash allowances and as detailed in D14 and \$50,000 for geotechnical allowance in the Form B: Fees as detailed in D9.2.

B9.4.1 Cash allowances shall be included in the calculation of total Fees proposed by the Proponent.

B9.4.2 Subcontractor/subconsultant markups associated with the geotechnical and hydrogeological investigation shall not exceed 10% and shall be included in the geotechnical and hydrogeological allowance.

B9.5 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.

- (a) 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 Optional services shall be included in Form B: Optional Services. These shall include:

- (a) Services and associated deliverable related to detailed design, tender and contract administration for Scope of Services described in D9.1.4.
- (b) Services proposed by Proponents in accordance with D7.4.1; which shall be detailed in accordance with B9.2.1 or B9.3.1.

- B9.6.1 Optional services will not be considered by the City as part of the Fees for this Project; however, the City may include optional services in the Contract if it is considered beneficial to the Project.
- B9.6.2 The City reserves the right to move items proposed by Proponents and included under optional services as part of Form B: Fees if the City considers those items to be part of the Scope of Services as described in this RFP. Accordingly, the Fees will be to evaluation in accordance with B24.
- B9.7 Adjustments to Fees will only be considered based on increases to the Scope of Services. The City will not consider an adjustment to the Fees based on
- (a) Changes in the Project budget or the Final Total Construction Cost.
 - (b) Rate escalation for yearly adjustments, promotion, etc.
 - (i) Proponents shall ensure that yearly rate escalations are included in both the Fixed Fee and Time-Based Fees based on the project schedule.
 - (ii) Proposal shall identify and detail all yearly rate escalations including salary adjustments.
 - (iii) The total Fee in the Proposal shall include all escalations.
- B9.8 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.
- B9.9 If the City required additional services as a result of a scope change after Contract Award, the rates to be used will be based on the yearly rates provided in the Proponent's proposal.
- B9.10 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B9.10.1 Fees stated shall not include any costs which may be incurred by the Consultant with respect to any applicable funding agreement obligations as outlined in D20. Any such costs shall be determined in accordance with D20.

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.
- B10.2 Proposals should include:
- (a) details demonstrating the history and experience of the Proponent and Subconsultants in providing design, project management, and contract administration services on two (2) projects of similar complexity, scope, and value.
 - (i) 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(a), the Proponent should submit:
- (a) description of the project;
 - (b) scope of the engineering assignment that the consultant was contracted to perform;
 - (c) project's original contracted cost and final cost;
 - (i) Provide this information separately for the value of the Scope of the Consultant Services assignment and the construction.
 - (ii) where the original contracted cost and final cost differ, the Proponent should submit an explanation.
 - (iii) Identify the amount of scope changes and the reasons for each of them.
 - (d) design and construction schedule (anticipated Project schedule and actual project delivery schedule, showing design separately);

- (e) project owner;
- (f) reference information
 - (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 contracted to verify qualifications, work experience, past projects, applicability to the role, etc.

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.

- (a) Clearly identify Subconsultants to be engaged by the Proponent on the organizational chart.

B11.2 Identify the following Key Personnel assigned to the Project:

- (a) Project manager;
- (b) Design lead process mechanical engineer;
- (c) Design lead structural engineer;
- (d) Design lead electrical engineer;
- (e) Design lead automation and controls engineer;
- (f) Lead geotechnical engineer;
- (g) Lead contract administration Personnel; and
- (h) Other Key Personnel with over 5% of the total proposed hours.

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.

B11.3.1 Include the following for each of the Key Personnel:

- (a) educational background and degrees;
- (b) professional recognition;
- (c) job title;
- (d) years of experience in current position;
- (e) years of experience in design and construction; and
- (f) years of experience with existing employer.

B11.3.2 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 (2) current names with 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 contracted to verify qualifications, work experience, past projects, applicability to 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.

B11.5 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.

- (a) activities to be performed either by the Proponent's employees or by Subconsultants at an office located outside the Province of Manitoba. Identify proposed arrangements (i.e. conference calls, webinars, travel, communication protocol, etc.) involving out-of-town employees to participate in coordination and review functions; and
- (b) the collaborative process/method to be used by the Key Personnel of the team in various phases of the Project.

B12.2 Methodology should be presented in accordance with the Scope of Services identified in D7. Project understanding and methodology will be evaluated in response to information provided in B12 including by not limited to:

- (a) Appropriateness of the project management approach
- (b) Consistency and completeness of the methodology
- (c) Appropriateness of hours assigned to individual tasks per person
- (d) Proponents understanding of the project including its deliverables and constraints
- (e) Demonstration of insight beyond information that was presented in this RFP

B12.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project described in D7.

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 activities and services to be undertaken by the City and equipment and supplies to be provided by the City;
- (e) any potential risks, along with their implications and possible mitigation measures, that could be encountered during inspection.
- (f) the City's Project methodology with respect to the information provided within this RFP and the City's Project Management Manual at <https://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#3> and templates at <https://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#4> ;
- (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.

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); submission dates for deliverables and milestone dates or events. The schedule should address each requirement of the 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 The Proponent's schedule should include:

- (a) reasonable review and approval times for documents and deliverables. A minimum of fifteen (15) Business Days should be allowed for review of deliverables; and the reviewed time should be commensurate to the number of pages and complexity of the document; A blackout period of December 24-January 4 will apply to the review period if applicable.
- (b) reasonable review and approval times for third parties (such as permit approvals etc. and other City departments) and guidance/approval processes if required;
- (c) project deliverables, deliverable review meetings, workshops and progress meetings. Meetings should be identified within the relevant task or phase;
- (d) adequate breakdown of each phase into activities and organized by deliverables;
- (e) project summary, phase summary, start and completion dates for the Project and each phase;
- (f) Project dependency column; and
- (g) the critical path.

B13.4 The Proponent should develop the most effectual schedule attainable using their experience to meet the requirements of the City.

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 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 NEWPCC Primary Clarification Facility Refurbishments, Replacements, and Upgrades (RFP-785-2020).

B15. DISCLOSURE

B15.1 Various Persons provided information or services with respect to this RFP. 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) AECOM Canada Ltd. is retained under the NEWPCC Upgrade project RFP 182-2015 which included some work on the NEWPCC Primary Clarification Facility.

- (b) Stantec Consulting Ltd: is a subconsultant to AECOM Canada Ltd under the NEWPCC Upgrade project, RFP 182-2015 which included some work on the NEWPCC Primary Clarification Facility.

B15.3 Additional Material:

- (a) Technical Memorandum – Scope of Work for the NEWPCC Upgrade: Primary Clarification Facility (AECOM, January 2020)
- (b) NEWPCC Area P- Cost Estimate (AECOM, 2018)
- (c) Testlabs International Ltd. Corrosion Engineering Inspection of the Concrete Walls of the Inner Ring, Part of the 80 Year Old Primary Clarifier Distribution Chamber at the North End Pollution Control Center
- (d) Testlabs International Ltd. Corrosion Engineering Inspection of the Concrete Walls of the Outer Ring, Part of the 80 Year Old Primary Clarifier Distribution Chamber at the North End Pollution Control Center
- (e) Geotechnical Evaluations and Foundation Engineering Report (Stantec, 2017)

B16. CONFLICT OF INTEREST AND GOOD FAITH

B16.1 Proponents, by responding to this RFP, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B16.2 Conflict of Interest means any situation or circumstance where a Proponent or Key Personnel proposed for the Services has:

- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;

that could or would be seen to:

- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Proposals or award of the Contract; or
 - (ii) compromise, impair or be incompatible with the effective performance of a Proponent's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the RFP process or the Project; or
 - (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the RFP process) of strategic and/or material relevance to the RFP process or to the Project that is not available to other Proponents and that could or would be seen to give that Proponent an unfair competitive advantage.

B16.3 In connection with its Proposal, each entity identified in B16.2 shall:

- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Project;
- (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the RFP process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Project Manager; and
- (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.

B16.4 Without limiting B16.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions

as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Proponent to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

- B16.5 Without limiting B16.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:
- (a) disqualify a Proponent that fails to disclose a perceived, potential or actual Conflict of Interest of the Proponent or any of its Key Personnel;
 - (b) require the removal or replacement of any Key Personnel proposed for the Services that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
 - (c) disqualify a Proponent or Key Personnel proposed for the Services that fails to comply with any requirements prescribed by the City pursuant to B16.4 to avoid or mitigate a Conflict of Interest; and
 - (d) disqualify a Proponent if the Proponent, or one of its Key Personnel proposed for the Project, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.
- B16.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

B17. PROPONENT DUE DILIGENCE

- B17.1 This RFP and the information supplied by the City as part of the RFP Process may not contain all of the information that a Proponent or its Subconsultants may need in deciding whether to submit a Proposal Submission or in the development of a Proposal Submission.
- B17.2 The City and its advisors make no representations or warranties, and there are no representations, warranties or conditions, either express or implied, statutory or otherwise, in fact or in law, with respect to the accuracy or completeness of this RFP or any information, data, materials or documents (electronic or otherwise) provided to the Proponents or their Subconsultants in this RFP or during this RFP Process with respect to the RFP or the Project. The City and its advisors shall not be liable for any claim, action, cost, loss, damage or liability of any kind whatsoever arising from any Proponent or Subconsultant's reliance on or use of this RFP or any other information, data, materials or documents (electronic or otherwise) provided or made available to the Proponents or their Subconsultants by the City or its advisors during this RFP Process or with respect to the RFP or the Project.
- B17.3 Each Proponent, and each Subconsultant is responsible for obtaining its own independent financial, legal, accounting, engineering, environmental, architectural and other technical and professional advice with respect to the RFP, the RFP Process, and the Project and with respect to any information, data, materials or documents (electronic or otherwise) provided or made available to the Proponents or their Subconsultants by the City or its advisors during this RFP Process or with respect to the RFP or the Project.
- B17.4 Each Proponent, and each Subconsultant, is responsible for ensuring that it has all of the information necessary to prepare its Proposal Submission in response to this RFP and for independently informing and satisfying itself with respect to the information contained in this RFP or provided during this RFP Process with respect to the RFP or the Project and with respect to any conditions that may in any way affect its Proposal Submission.

B18. QUALIFICATION

- B18.1 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;
- B18.2 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 <https://winnipeg.ca/finance/findata/matmgt/listing/debar.pdf>
- B18.3 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 planning, design, management of construction and contract administration for 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);
 - (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.
- B18.4 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.
- B18.5 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.
- B19. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**
- B19.1 Proposals will not be opened publicly.
- B19.2 After award of Contract, the Contract amount and the name of the successful Proponent and their address will be available on the MERX website at www.merx.com.
- B19.3 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).
- B19.3.1 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.

B19.4 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.

B20. IRREVOCABLE OFFER

B20.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B20.2 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 Services for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B21. WITHDRAWAL OF OFFERS

B21.1 A Proponent may withdraw his/her Proposal without penalty prior to the Submission Deadline.

B22. INTERVIEWS

B22.1 The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

B23. NEGOTIATIONS

B23.1 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.

B23.2 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.

B23.3 If, in the course of negotiations pursuant to B23.2, 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.

B24. EVALUATION OF PROPOSALS

B24.1 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 B18: (pass/fail)
- (c) Fees; (Section B) 40%
- (d) Experience of Proponent and Subconsultant; (Section C) 15%
- (e) Experience of Key Personnel Assigned to the Project; (Section D) 20%
- (f) Project Understanding and Methodology (Section E) 20%
- (g) Project Schedule. (Section F) 5%

B24.2 Further to B24.1(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.

- B24.3 Further to B24.1(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 qualified.
- B24.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B24.1(a) and B24.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B24.5 Further to B24.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.
- B24.6 Further to B24.1(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.
- B24.7 Further to B24.1(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.
- B24.8 Further to B24.1(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.
- B24.9 Further to B24.1(g), Project Schedule will be evaluated considering the Proponent's ability to comply with the requirements of the Project, in accordance with B13.
- B24.10 Notwithstanding B24.1(d) to B24.1(g), where Proponents fail to provide a response to B7.2(a) to B7.2(e), the score of zero may be assigned to the incomplete part of the response.
- B24.11 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B22.
- B24.12 Where references are requested, the reference checks to confirm information provided may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Proponent.

B25. AWARD OF CONTRACT

- B25.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B25.2 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 qualified, and the Proposals are determined to be responsive.
- B25.2.1 Without limiting the generality of B25.2, 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.
- B25.3 Where an award of Contract is made by the City, the award shall be made to the qualified Proponent submitting the most advantageous offer.
- B25.4 The City may, at its discretion, award the Contract in phases.

- B25.5 Further to B25.4 the City reserves the right to negotiate and award future phases to the successful Proponent.
- B25.6 Further to Paragraph 7 of Form A: Bid/Proposal and C4, the City may issue an award letter to the successful Proponent in lieu of execution of Contract Documents
- B25.6.1 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 award letter notwithstanding that they are not necessarily attached to or accompany said award letter.
- B25.7 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(o).
- B25.8 If funding for the Services is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Proponents are advised that the terms of D20 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B25.9 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.
- B25.10 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Proponent 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.
- 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.
- D1.2 Further to C.1.1 (b) and C11, the following is applicable to Allowable Disbursements:
- (a) booking of transportation and accommodations are expected to take place well in advance to obtain optimal discounted rates;
 - (b) the acceptable standard for air travel shall be economy class;
 - (c) air travel premium fees, such as seat selection premiums etc., will not be reimbursable unless specifically approved by the Project Manager;
 - (d) the acceptable standard for accommodation will be a single room in a safe environment, conveniently located and comfortably equipped;
 - (e) the acceptable standard for rental vehicles shall be mid-size;
 - (f) car rental premium fees, such as prepaid fuel or re-fuelling surcharges etc. will not be reimbursable unless specifically approved by the Project Manager;
 - (g) costs for alcoholic beverages will not be reimbursable and shall not be claimed;
 - (h) proof of purchase shall not constitute credit/debit card statements; and
 - (i) GST is to be deducted from the reimbursable value of merchant/vendor invoices
- D1.3 In addition to C11.7, The Project Manager will provide the Consultant with an invoice template to be used on this project. The invoice template will be in MS Excel and generally include columns for:
- (a) activity/ task description;
 - (b) Contract amount subtotals;
 - (c) previously invoiced;
 - (d) current invoice;
 - (e) invoiced to date;
 - (f) remaining balance;
 - (g) category III related costs as defined in the Province of Manitoba Tax Bulletin 058 at <https://www.gov.mb.ca/finance/taxation/pubs/bulletins/058.pdf>
 - (h) non-category III related costs; and
 - (i) percent complete
- D1.4 Consultants shall invoice monthly based on the type of Fees applicable to each phase.
- D1.4.1 For Fixed Fees, Consultant shall invoice the City equal monthly payments during each phase such that
- (a) 75% of each phase amount as determined by the Consultant's Proposal Fees, are not paid out until all the draft deliverables associated with each individual phase has been submitted to the City.
 - (i) For clarity, as Consultant invoice equal monthly payments, all draft deliverables associated with each phase must be submitted prior to the Consultant invoicing the last invoice that makes up 75% of the Consultant's Fees for each phase.
 - (ii) In accordance with B13 deliverables shall be submitted throughout the course of the project and not submitted together to ensure the City has enough time for review.

- (b) 5% of each phase amount is not invoiced until final deliverables associated with each individual phase has been accepted by the City.
 - (i) For clarity, the 5% will not be applied to every invoice, it will only be held at such time that the amount on each respective phase has reached approximately 5% of the individual phase amounts.
 - (ii) Consultant shall invoice the 5% of each phase after the final deliverables have been accepted by the City.

D1.4.2 For Time-Based Fees details of personnel, hours and costs by task per phase should be provided as supporting documentation to invoices. The details listing should reconcile to the summary level invoice on a monthly basis.

- (a) Consultant shall ensure that 5% of each phase amount associated with Time-Based Fees is not invoiced until the Consultant's final deliverables associated with each individual phase has been accepted by the City.
 - (i) For clarity, the 5% will not be applied to every invoice, it will only be held at such time that the amount on each respective phase has reached approximately 5% of the individual phase amounts.
 - (ii) Consultant shall invoice the 5% of each phase after the final deliverables have been accepted by the City.

D1.4.3 Invoices submitted by the Consultant shall include:

- (a) detailed listing of manpower and costs by activity per task per person as supporting documentation to invoices. The details listing should reconcile to the summary level invoice on a monthly basis; and
- (b) disbursements that are grouped and listed with all supporting documents/receipts attached.

D1.4.4 Consultants shall only invoice for the next phase of the work after obtaining authorization from the Project Manager. Authorizations are to be provided for the following and associated project management

- (a) Preliminary design;
- (b) Detailed design & tender Services;
- (c) Contract administration Services;
- (d) Commissioning Services;
- (e) Post- construction Services; and
- (f) Optional Services (if applicable)

D1.4.5 Consultant shall provide the Project Manager an estimated MRST for each phase of the Scope of Services, based on Category III Consultant Services as defined by Engineers Geologist Manitoba, after Award.

D1.4.6 Consultants shall submit Invoices in either paper copy or electronic copy

D2. PROJECT MANAGER

D2.1 The Project Manager is:

Jaimee Sekanjako, P.Eng.

Telephone No. 204 986-3266

Email Address: jsekanjako@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.

D3. DEFINITIONS

D3.1 When used in this Request for Proposal:

- (a) “**AACE**” means AACE (Association for the Advancement of Cost Engineering) International’
- (b) “**CAD**” means Computer Assisted Drawing;
- (c) “**Class 1 Cost Estimate**” means an estimate within an expected accuracy within -10% to +15%;
- (d) “**Class 3 Cost Estimate**” means an estimate within an expected accuracy within -20% to +30%;
- (e) “**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;
- (f) “**HAZOP**” means Hazard and Operability Analysis;
- (g) “**HVAC**” means Heating, Ventilation, and Air Conditioning;
- (h) “**Native Format**” means the original format from which a deliverable was generated (i.e. MS Word, MS Excel, AutoCAD, etc.);
- (i) “**NDT**” means Non-Destructive Testing;
- (j) “**NEWPCC**” means North End Sewage Treatment Plant.
- (k) “**NMS**” means National Master Specifications;
- (l) “**O&M**” means Operation and Maintenance;
- (m) “**OWAM**” means Oracle Work and Asset Management;
- (n) “**PDF**” means Portable Document Format;
- (o) “**PLC**” means Programmable Logic Controller;
- (p) “**Professional Engineer**” means an engineer registered in the Province of Manitoba;
- (q) “**RFI**” means Request for Information;
- (r) “**RFP 182-2015**” means Request for Proposal for Professional Engineering Consulting Services for The North End Sewage Treatment Plant (NEWPCC) Upgrade
- (s) “**Scope of Services**” means all Services executed under the Contract;
- (t) “**Veolia**” means Veolia Water North America (Winnipeg) Inc;
- (u) “**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;
- (v) “**WBS**” means Work Breakdown Structure;
- (w) “**WSTP**” means the Winnipeg Sewage Treatment Program. The Winnipeg Sewage Treatment Program is an undertaking between the City and Veolia to facilitate various City wastewater treatment projects and programs.
- (x) “**WWD**” means Water and Waste Department.

D4. BACKGROUND

D4.1 The North End Sewage Treatment Plant (NEWPCC) is the largest of the three (3) sewage treatment plants servicing the City of Winnipeg. The NEWPCC is located at 2230 Main Street in Winnipeg, Manitoba.

D4.2 The NEWPCC Primary Clarification Facility is one of the facilities at NEWPCC and consists of

- (a) Three (3) circular and two (2) rectangular primary clarifier tanks;
- (b) The distribution control chamber;

- (c) Sludge removal system;
 - (d) Scum removal system; and
 - (e) associated electrical, automation, building mechanical, and process equipment and appurtenances.
- D4.3 The facility receives sewage downstream of the screening and grit processes. The sewage flows through the distribution control chamber (junction chamber) before it is distributed into the circular and rectangular primary clarifiers. Generally, each primary clarifier consists of a 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 of the sewage.
- D4.4 The influent to the circular clarifiers is controlled by sluice gates located in the distribution control chamber building. Flow into the rectangular clarifiers is controlled by sluice gates located at the front of each clarifier. The sluice gates are aging and problematic and requires replacement.
- D4.5 The Primary Clarification Facility is required to meet a capacity of 550 ML/d; however, the capacity will be limited to 380 ML/d until the existing secondary clarifiers are replaced.
- D4.6 Refurbishment or replacement of the assets involved with this project are required to maintain reliability, improve performance, and extend the remaining useful life of the Primary Clarifier process area. In addition, sludge from the Primary Clarifiers currently contributes to the capacity in the NEWPCC digesters. The works increase primary sludge thickness to improve capacity in the existing digesters.
- D4.7 The City of Winnipeg is currently upgrading the NEWPCC through separate projects to accommodate future sewage flows and loadings and to provide enhanced treatment capability to address environmental and public health concerns and regulatory requirements. Coordination of the NEWPCC Primary Clarification Facility Project with other projects occurring at NEWPCC will be required to minimize operational impacts.
- D4.8 The City has engaged Veolia to provide advice to the City during the delivery of this Project. Veolia will attend meetings and workshops and assist with reviews throughout the Project. This does not relieve the Consultant of their obligations.

D5. RELEVANT DOCUMENTS

- D5.1 Relevant documents, drawings listed in Appendix 1, Appendix 2, Appendix 3, and Appendix 26 are available by request to the City's Project Manager after completion of a Non-Disclosure Agreement included in Appendix 24. These documents and drawings will be released at the sole discretion of the City.
- D5.2 The Consultant, including their Subconsultant(s), is expected to carry out its due diligence on documents provide by the City, whether provided as relevant documents or as part of B15, to satisfy itself on the accuracy and completeness of the information provided. Consultants are to include efforts, requirements, work or expertise required to carry out the Scope of Services for the Project, and not included in documents provided by the City, in their Fees in accordance with B9. Such effort, requirements, work or expertise shall not be considered optional services in accordance with D7.4.1.
- D5.3 The preparation of Reliance Letters will be a requirement of the successful Consultant and Subconsultants. Reliance Letters are required to allow the use of, and reliance upon the Reports and other content prepared in connection with this Project for subsequent Projects at NEWPCC with an alternate form of delivery such as design build.
- (a) Third parties who design/build the Project (eventually Preferred Proponent or Project Co. including their lenders, accountants, regulators, legal advisors etc.) place the same reliance on the report to the same extend as the City.
 - (b) The template for a reliance letter can be found in Appendix 25.

D6. GENERAL REQUIREMENTS

D6.1 General

- 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 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 letter 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 the Project, shall be endorsed by the Consultant's representative in a manner acceptable to the City.
- D6.1.3 The Consultant shall not substitute or replace Key Personnel throughout the duration of the Project without the written approval of the Project Manager.
- (a) Experience and qualification as specified in B11 shall be submitted for all requested substitute(s) and replacement(s).
- D6.1.4 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 and mitigate the risk of taking the plant out of compliance with the Environment Act Licence.
- (a) No work shall take place which will interfere with the continuous plant or plant process operation without written approval of the Project Manager.
 - (b) Tie-ins or replacements and upgrades in the existing plant shall be undertaken and completed in typical dry weather flow periods of the year (i.e. Winter months of December to February inclusive).
 - (c) condition assessments may be completed at any time of the year provided the work is
 - (i) planned, coordinated, and scheduled with the Project Manager and operations staff,
 - (ii) does not cause unplanned disruptions to the treatment process or other projects at NEWPCC; and
 - (iii) follows all health and safety regulations and plant safe work procedures.
- D6.1.5 The Consultant shall maintain close coordination, through the Project Manager, with other projects at NEWPCC at to minimize conflict between the Project's general contractor, and other projects and to minimize operational impacts.
- D6.1.6 The Consultant shall coordinate and obtain approval/permit(s) where required, including but not limited to: Manitoba Hydro, MTS, and City Departments.
- D6.1.7 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.
- D6.1.8 The Consultant shall comply with the following design guidelines, standards and requirements, including but not limited to:
- (a) WSTP Architectural Design Guideline-R00 (Appendix 4)
 - (b) WSTP Building Mechanical Design Guideline-R00 (Appendix 5)
 - (c) WSTP Civil Design Guideline -R00 (Appendix 6)
 - (d) WSTP Structural Design Guideline0R01 (Appendix 7)

- (e) WSTP Automation Design Guide-R01 (Appendix 8)*
- (f) WSTP HMI Layout and Animation Plan (Appendix 8)*
- (g) WSTP NEWPCC Access Control Guideline-R01 (Appendix 9)
- (h) WWD Electrical Design Guide-R05 (Appendix 10)
- (i) Water and Waste Department (WWD) Identification Standard – R02 (Appendix 12) – the Consultant shall request clarification from the Project Manager should undefined identification requirements be encountered;
- (j) WSTP Project Document Numbering Standard (DOCUMENT NUMBER: PG-RC-PC-05) - R2016-02-02 (Appendix 13);
- (k) WSTP Electrical and Instrumentation Standardization Clauses-R00 (Appendix 11)
- (l) WSTP Electrical and Instrumentation Standardization Summary- R04 (Appendix 11)
- (m) WWD Wastewater Historical Data Retention Standard – R00 (Appendix 14)*
- (n) WWD Sewage Treatment Plant Tag Naming Standard – R00 (Appendix 15)
- (o) WWD Paint Color Standard-R01 (Appendix 16)
- (p) Operation and Maintenance Information (Appendix 17)
- (q) Training Requirements (Appendix 23);
- (r) Guideline to Document Asset Registry for New/Upgraded Projects (Appendix 21)
- (s) City of Winnipeg Water and Waste Department Computer Assisted Drafting (CAD) and Geographic Information System (GIS) Standards, available at http://winnipeg.ca/waterandwaste/dept/cad_gis.stm

*These documents are under review.

- D6.1.9 The Consultant shall notify the Project Manager of any conflict identified between the documents listed under D6.1.7 for resolution.
- D6.1.10 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 18.

D6.2 Project Deliverables

- D6.2.1 Project deliverables include but are not limited to:
- (a) condition assessment inspection, condition assessment summary in the form of a technical memo, preliminary design report, detailed design, construction tender documents, specifications, drawings, and cost estimates.
- D6.2.2 All Project deliverables are to be delivered with a document lifecycle approach.
- D6.2.3 Where possible, all documents provided as PDF shall be in a single electronic file and searchable.
- D6.2.4 Unless otherwise indicated, the review period for Project deliverables shall be as indicated in B13.
- D6.2.5 All deliverables shall have incorporated the Consultant's internal quality procedures before being submitted to the City.
- (a) All deliverables shall be reviewed by a representative of the Consultant who is proficient in technical writing prior to being submitted to the City.
 - (b) Any deliverables deemed by the City to be of poor quality shall be rejected and will be required to be revised and resubmitted at no additional cost to the City or additional time to the Project schedule.
- D6.2.6 All draft and final deliverables shall be submitted in both Native Format and PDF format.

- 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 City's Project Manager. All City review comments shall be considered and incorporated into the final version.
- D6.2.8 The City will require the Consultant and Subconsultants to provide, within sixty (60) Calendar Days of the completion of the Post-Construction Service phase, electronic copies of all background notes, calculations, working notes, research, field logs, working copy spreadsheets, model inputs, survey notes, etc. used in generating deliverables indicated in this RFP and pertinent to the Project, so that the City has complete understanding of all details related to this Project.
- (a) The format for the provided materials may take multiple formats, but should be provided in electronic format (spreadsheets, CAD drawings, scans etc.) in an organized electronic filing system.
 - (b) The rationale for requiring this information is that we (The City, or consultants working for the City) on subsequent work related to this project may need to refer to specific details in the future.

D6.3 Drawings

- D6.3.1 Consultant shall follow and prepare drawings in accordance with WWD construction drawing standard indicated in D6.1.8(s)
- D6.3.2 All construction drawings are to have a Water and Waste Department drawing number assigned before the work is tendered and shall be generated in accordance with D6.1.8(j).
- D6.3.3 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, aerial surveys and/or topographic surveys.
- D6.3.4 All profile components of drawings shall be in natural scale.
- D6.3.5 Where existing systems are being modified, the existing drawings shall be modified or superseded rather than creating a new drawing that shows a limited portion of the new work. Consultant shall modify or delete existing drawings as follows;
- (a) show modifications to existing drawings by adjusting the existing revision number;
 - (b) drawings that are no longer in use shall be modified by marking them as obsolete; and
 - (c) Consultant acknowledges that not all existing drawings are in CAD files and recreation of the drawing in CAD may be required.
- D6.3.6 All drawings shall be submitted
- (a) in the WWD current version of AutoCAD,
 - (b) in full size Mylar hard copy (only final drawings), unless otherwise specified; and
 - (c) sorted by area code, then by discipline.
- D6.3.7 Drawing titles shall follow a five-line format, and shall be completed as follows:

Line	Content	Notes
1	Facility Name	North End Sewage Treatment Plant
2	Project Title	Primary Clarification Project
3	Area	For example: Area Y – Yard
4	Type of Arrangement	For example: General Arrangement, Single Line Diagram
5	Drawing Content	Include equipment identifiers as applicable. For example: AHU-E6250 Bank 1 Air Handler.

- D6.3.8 Drawing descriptions shall be generated with consideration of being searchable for use by plant staff. Equipment identifiers and consistent naming of equipment and processes shall be used.
- D6.3.9 Consultants shall provide all 3D models in Native Format with the as-built submittal. Models shall meet the following criteria:
- (a) models shall not be purged of any data, views, sheets or other information pertaining to the project prior to submittal; and
 - (b) models shall reflect all changes to model components.
- D6.3.10 Consultant shall provide as part of each drawing submission, a complete index of drawings in Microsoft Excel (XLS) format. The index shall have filters enabled to facilitate retrieval of information and shall include the following.
- (a) area code;
 - (b) process code;
 - (c) discipline;
 - (d) drawing title; and
 - (e) drawing number
- D6.3.11 To prevent duplication of existing drawing numbers, Consultant shall request the drawing starting number for each area code and discipline from the Project Manager.
- D6.3.12 Upon award, Consultant shall consult with the City regarding the use of layout, title block, units, scales, lettering, fonts, dimension style, general symbols and layers for CAD drawings.
- D6.3.13 Consultant shall use the following horizontal and vertical coordinates at NEWPCC for the project.

	City of Winnipeg June 90 (LBIS)		NAD83
	Northing	Easting	Elevation
BM 1	5534996.006	636000.318	231.073
BM 2	5534816.615	635804.484	230.670
BM 3	5535144.163	635145.506	232.293
BM 4	5535479.063	635036.233	231.014

D6.4 Photographs

- D6.4.1 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 photographs were taken; and
 - (c) a brief description of what is depicted by the photograph.

D6.5 Meetings

- D6.5.1 Schedule and chair Project meetings as indicated in the Scope of Work
- (a) provide an agenda a minimum of two (2) business days before the meeting date.
 - (b) provide meeting minutes within three (3) business days after the meeting date.

D7. SCOPE OF SERVICES

- D7.1 The Scope of Services of this RFP generally consists of professional engineering services to facilitate the construction, replacement and upgrades, and condition assessment as follows:
- D7.1.1 New construction

- (a) A new scum dewatering building including scum pumping and dewatering system;
- (b) Addition of effluent launder covers for the three circular clarifiers;
- (c) Foul air piping from the effluent launders to the existing primary clarifier stack; and
- (d) Decommissioning of applicable systems as a result of the new construction.

D7.1.2 Replacements & Upgrades

- (a) Upgrading electrical components in the controls for traveling bridges of primary clarifiers 4 & 5 with PLC based control system including power festoon;
- (b) Upgrading the HVAC system for the distribution control chamber building;
- (c) Replacing a number of existing motors, control panels, and junction boxes with appropriate hazardous area classification equipment;
- (d) Replacing sluice gates and actuators;
- (e) Relining scum pipes from each clarifier; and
- (f) Rerouting the power supply from the new electrical building instead of the pre-aeration and grit removal building.

D7.1.3 Inspection of existing structures & systems

D7.1.4 Structural and Mechanical condition assessments of primary clarifiers 4 and 5 traveling bridge collectors

D7.1.5 Detailed information for the new construction, replacements and upgrades is included in Appendix 3 except that all new automation systems shall be PLC based.

D7.1.6 Out of scope

- (a) Sludge and scum collector systems;
- (b) Primary sludge pumps; and
- (c) Detailed design, tender and contract administration services for Scope of Services described in D9.1.4.

D7.2 The Services required under this Contract shall consist of the following phases:

- (a) Project Management in accordance with D8;
- (b) Preliminary Design Services in accordance with D9;
- (c) Detailed Design & tender Services in accordance with D10;
- (d) Contract Administration Services in accordance with D11;
- (e) Commissioning Services in accordance with D12; and
- (f) Post Construction Services in accordance with D13.

D7.2.1 Unless otherwise stated, Appendix 19 – Definition of Professional Consultant Services (Consulting Engineering Services) shall be applicable to the provision of Professional Engineering services for this Project. With respect to preliminary design, detailed design and contract administration services.

D7.2.2 The Services required in this Contract shall be in accordance with the City's Project Management Manual and templates <https://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#2>. Notwithstanding the foregoing, the Consultant is being engaged by the City for its professional expertise; the Consultant shall bring to the Project Manager's attention any aspect of the City's Project Management Manual or templates which the Consultant is of the opinion is not consistent with good industry practice.

D7.3 An cash allowance has been included in this contract as detailed in D14.

D7.4 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. Additional activities should be noted separately under Optional Services in Form B: Fees.

- D7.4.1 Activities outside of the Scope of Services shall be noted separately under optional services in accordance with B9.6.

D8. PROJECT MANAGEMENT

- D8.1 Plan, organize, secure, and manage resources to complete the phases outlined in D9 to D14.

- D8.2 Carry out a Project kick-off meeting immediately upon Project Award to include the general strategy for completing the Project.

- D8.3 Create and submit a project management plan no later than twenty-one (21) Calendar Days after Project Award. The project management plan shall include but not be limited to:

(a) Scope and Schedule

- (i) Include the schedule information required in B13.
- (ii) Provide a deliverable based Work Breakdown Structure (WBS) that identifies major elements relative to how the assignment will be managed and in terms of tangible and verifiable results (including milestones, critical triggers, Deliverables, etc.).
- (iii) Provide a Project Schedule, listing all Project activities and milestones. Identify responsibilities, timelines, and dependencies for all activities and milestones.
- (iv) The approved schedule will be used as the Project baseline schedule throughout the Project.
- (v) The City's Project Manager may request updates to the Project baseline schedule due to delays in receiving deliverables.

(b) Budget

- (i) Include the information required in B9.

(c) Quality Management

- (i) Describe quality management methods used to address quality planning, quality assurance, and quality control for the following:
 - (i) Field surveying procedures and controls, including condition assessments;
 - (ii) Data review, verification, and validation;
 - (iii) City reviews;
 - (iv) Corrective action process; and
 - (v) Quality assurance and control of Deliverables.

(d) Human Resources

- (i) Describe the team organizational and management approach
- (ii) Include an organization chart.

(e) Communication

- (i) Describe communication interfaces (organization, technical, and interpersonal) and the roles and responsibilities of each stakeholder.
- (ii) Identify the processes that will be used to liaise with the City throughout the provision of the Services and to provide ample opportunity for input and review by the City's Project team.

(f) Change Management Plan

- (i) Identify the schedule, quality, and budget impacts of any proposed changes.

(g) Quality Assurance and Control plan

- (i) Establish appropriate levels of review and approvals for all Project Deliverables.

(h) Stakeholder Assessment and Communications Plan

- (i) Develop a Stakeholder Assessment and Communications Plan. The Stakeholder Assessment shall identify stakeholder, interest and expectations, importance and influence, assessment of impact, strategies for gaining support or reducing impact.

The Communication Plan shall identify stakeholder, objective, messages, timing/frequency, delivery method/media type, by who, and feedback mechanism.

- (i) Risk Management Plan
 - (i) Develop a risk management plan for identifying risk events and their cause, outcome, degree of certainty, degree of impact on Project objectives, severity of risk, response/action(s) to be undertaken, mitigation or contingency plan and associated costs to manage risks.
 - (ii) The Plan will explain the approach to communication related to risk and how it will ensure mitigations and contingency plans are implemented and reviewed throughout the project.

- D8.4 Submit cash flow forecast to the Project Manager at the onset of the Project and then semi-annually (March and September) until the end of the project. The cash flow shall reflect cost to date as well as revised forecast. Forecasts shall include the Consultant's Fees and the contractor's fees. Forecasts shall be presented in a yearly format agreed to by the City.

- D8.5 Submit monthly Project status reports, including the following:
 - (a) work carried out in the previous quarter;
 - (b) work in progress;
 - (c) work anticipated for the following quarter, including projected person-hours;
 - (d) percentage completion of each task and the overall Project;
 - (e) information requests for the following quarter;
 - (f) issues to date;
 - (g) earned value analysis
 - (h) schedule and quality performance. In particular, report on items that are behind schedule and how they will be addressed;
 - (i) any modifications to the Project Management Plan;
 - (j) budget and actual cost for completed tasks and projected cost for planned tasks; and
 - (k) description, action, and mitigation of extreme and high risk(s).

- D8.5.1 Monthly project status reports shall be a maximum of ten (10) pages unless otherwise agreed to by the Project Manager and be submitted within three (3) days of the month's end.

- D8.6 Coordinate regular project and design meetings and provide minutes. The meetings shall be used to update the Project Manager on the status of the Project and to discuss other project management issues.
 - (a) Meetings shall be held monthly during design stages.
 - (i) If critical design dates outlined in the project schedule are not achieved during the design stages, regular project meeting frequency shall increase to every two weeks until the design stage is complete. No additional fees will be contemplated for additional meetings.
 - (b) The frequency of meetings may vary based upon the level of project activity.
 - (c) Conduct informal weekly update meetings
 - (d) Conduct 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)

- D8.6.1 Additional meetings may be required in the event that issues arise during the course of the project.

- D8.7 The Consultant shall be required to maintain a risk register, as part of their risk management approach, using the City's spreadsheet template located on the City's Asset Management Program website located at: <https://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#5>

- (a) Identify risks and associated mitigations in each of the following phases; design, construction, and start-up/switch over operations.
- (b) The Consultant will facilitate three (3) risk workshops with the WSTP team (i.e. prior to completion of the Preliminary Design Phase, prior to preparation of the Tender document(s), and prior to finalization of the Project Commissioning Plan).
- (c) Allow for four (4) hours for the initial risk workshop and two (2) hours for each of the two remaining risk workshops. At a minimum, all Key Personnel, shall be present at the risk workshops. Contract Administration Personnel shall be present at the second risk workshop.
- (d) The Consultant will be required to manage the risk register throughout the Project. Outline process for updating the risk management plan including the risk register at various phases of the Project until Total Performance.

D8.8 Provide adequate notice (at least seven (7) Calendar Days) prior to any Site visit or investigation or work that will require assistance from City personnel.

D8.9 Carry out other project management activities as required.

D9. PRELIMINARY DESIGN

D9.1 Carry out preliminary design in accordance with Appendix 19.

D9.1.1 Lead a workshop with WWD operations staff to identify operational constraints with planned condition assessment activities, and potential construction issues/concerns related to existing infrastructure of the Scope of Services. Review concerns identified by WWD operations including any anecdotal evidence any observed concerns/issues with associated existing electrical and automation equipment.

D9.1.2 Review all pertinent background information including, but not limited to:

- (a) Review the document provided in Appendix 3 and determine any updates necessary for implementation;
- (b) Drawings related to the Project;
- (c) Past bid opportunities and tenders; as applicable;
- (d) Past reports and technical memorandums; and
- (e) NEWPCC plant operating and maintenance manuals as applicable.

D9.1.3 Conduct a detailed Site investigation to verify existing drawings and documentation reviewed in D9.1.1 and to be familiar with the NEWPCC Primary Clarification Facility.

D9.1.4 Carry out condition assessment of primary clarifiers 4 and 5 traveling bridge collectors

- (a) Conduct a structural condition assessment of all support structures for the travelling bridge collectors based on visual inspection (VT).
 - (i) Support structures shall include but not be limited to the floors beneath the rails and wall sections where the festoon system is mounted).
 - (ii) The condition assessment shall include finite element modeling (FEM) and various Non-Destructive Testing (NDT) technologies (i.e. visual inspection, selective radiography, and selective dye penetrant testing). The Consultant shall include five (5) areas per structure for selective radiography prioritized based on visual inspection and FEM. The unit price to be used shall be included as an add or deduct based on the actual quantity required; and
 - (iii) Provide an opinion on the expected remaining useful life (RUL) of the structure and any recommended remedial work to extend the useful life of the asset by twenty-five (25) years.
 - (iv) Provide a refurbishment/replacement plan for mechanical, electrical, and automatic assets to achieve an overall 25 year life for the process.
- (b) Mechanical condition assessment shall include plan and profile survey and inspection of travelling bridge collectors for Primary Clarifier 4 and 5 and associated running

wheels, flanged guide wheels, drive system and related parts, rails, and supports, and bridge timing alignment inspection. This scope is limited to elements physically located above the normal top water line including rail soleplates, cog tracks, wheel assemblies, and bridge drive systems on primary clarifiers 4 and 5

- (c) Carry out electrical and automation condition assessments.
- (d) Provide a technical memorandum and presentation on the condition assessments that includes the following:
 - (i) examination approaches utilized;
 - (ii) assumptions made;
 - (iii) inspection and testing observations and results;
 - (iv) conclusions; and
 - (v) recommendations for replacements; future inspections and testing.

D9.1.5 Carry out HAZOP in accordance with guidelines for hazard evaluation procedures published by the American Institute of Chemical Engineer and in accordance with the City's HAZOP Procedure.

- (a) Identify representative nodes (process areas) for City review;
- (b) Conduct a half day HAZOP workshop prior to the completion of the preliminary design;
- (c) Provide preliminary P&IDs and PFDs for the workshops;
- (d) Pre-populate the HAZOP workshop software with all nodes, areas, and failure scenarios. The workshop should not be used for elaborating on design requirements, operational principles, or information gathering;
- (e) Design input and reviews of P&IDs, and PFDs shall have been completed in advance of HAZOP workshops;
- (f) Provide a technical memorandum after workshop including recommendations as a result of the workshop; and
- (g) Incorporate HAZOP recommendations into the design.

D9.2 Review all geotechnical and hydrogeological investigation reports carried out at NEWPCC and determine if there is a need to carry out additional investigation for the Project and provide a technical memorandum of the reports as applicable to the Project. Existing geotechnical and hydrogeological reports are listed in Appendix 26 and will be available to the Proponent upon signing a Non-Disclosure agreement. The technical memorandum shall include:

- (a) a summary of available existing geotechnical and hydrogeological reports
- (b) recommendations for the Project
- (c) recommended additional investigation if required
- (d) if required, scope of additional geotechnical and hydrogeological investigation and rationale
- (e) estimate of the additional geotechnical and hydrogeological investigation if required

D9.2.1 If approved by the Project Manager, the geotechnical allowance indicated in B9.4 is to be used for additional geotechnical investigation including but not limited to:

- (a) Geotechnical and hydrogeological investigations to characterize the geotechnical and hydrogeological conditions of the Project area. This information will be used by the Consultant to provide geotechnical and hydrogeological design for the Project;
- (b) procurement of a drilling contractor
- (c) verifying the drilling contractor has all necessary utility locates and work permits
- (d) supervision of the investigation activities by qualified personnel
- (e) collection and testing of samples
- (f) groundwater monitoring; and

- (g) other applicable geotechnical and hydrogeological investigation necessary for the project.
- D9.2.2 The geotechnical allowance does not cover the inclusion of geotechnical and hydrogeological design, report and appropriate recommendations into the preliminary design. Fees associated with the inclusion of the geotechnical and hydrogeological recommendations and design into the project shall be included under the appropriate phase(s) of the project as detailed in B9.
- D9.2.3 The City reserves the right to delete any or all of the geotechnical and hydrogeological allowance from the Contract if the work intended to be covered by the geotechnical and hydrogeological allowance is not required, or if the works intended are found to be more extensive than the provisional geotechnical and hydrogeological allowance.
- D9.3 Provide a preliminary level critical path schedule from Detailed Design to turnover.
- (a) The level of detail shall be such that it clearly conveys the significant activities related to the various Project components with their inter-dependencies.
 - (b) The breakdown of the work shall be into logical phases to accommodate sewage treatment plant operations,
 - (c) The schedule shall be configured suitable for use by Microsoft® Office Project 2010.
 - (d) Indicate deliverables and milestones.
 - (e) Indicate sequence of construction, process shutdown schedules, including magnitude and duration, and Manitoba Conservation notification requirements, if applicable.
 - (f) Indicate commissioning and training requirements.
 - (g) 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.
- D9.4 Provide a class three (3) cost estimate in accordance with the appropriate AACE International Recommended Practice(s) for the Scope of Services.
- (a) Cost shall include whole life cost (CAPEX, OPEX & NPV).
 - (b) Costs shall be presented by area and discipline.
 - (c) Costs related to the condition assessment shall be identified separately from the rest of the Scope of Services
- D9.5 The Consultant shall prepare a preliminary design report (PDR) that details the preliminary design phase and includes drawings.
- (a) The report shall include the Scope of Services indicated in D7.1.1 to D7.1.5 and detailed in D9.
 - (b) The geotechnical & hydrogeological reports, condition assessment technical memorandum schedule and class 3 cost estimate shall be standalone documents that can be submitted prior to the submission of the PDR; however, they shall be appended to the PDR and summarized within the body of the PDR.
 - (c) Options considered, inspections, conclusions, recommendations shall be indicated.
 - (d) Include an outline of the Project commissioning plan to provide the approach to commissioning and identify overall sequence and any constraints to commissioning that need to be addressed in the Detailed Design phase.
- D9.5.1 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.
- D9.5.2 The Consultant shall present and discuss their recommendations at a review meeting with the WSTP team upon completion and provision of the draft PDR.
- D9.5.3 The Consultant shall submit the final PDR after incorporating City review comments, or comments that may arise during the preliminary design review meeting. A presentation

may be required upon completion of the final preliminary design report at the Project Manager's discretion.

D9.5.4 The Consultant must not proceed to detailed design without obtaining the Project Manager's direction.

D10. DETAILED DESIGN & TENDER SERVICES

D10.1 Detailed design & tender services shall commence after the Consultant obtains direction from the Project Manager.

D10.2 Consultant shall carry out detailed design and tender services in accordance with Appendix 19.

D10.3 General Requirements

- (a) Where necessary, conduct field surveys and investigations to verify the existing conditions and to supplement all available information. Notify the City's Project Manager if existing conditions are found to deviate from City records.
- (b) Organize meetings with City staff to ensure all required information, issues, and concerns are accounted for.
- (c) The consultant shall identify all permits necessary for construction.
- (d) 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.
- (e) The detailed design shall address technical and operational issues, reliability and safety concerns, and all current and applicable code requirements.
- (f) The detailed design shall include all disciplines; such as site development, civil, structural, architectural, process mechanical, building mechanical, geotechnical and hydrogeological, electrical (including arc flash studies) and, automation; temporary facilities and operational consumables required for the Project
- (g) Provide any other information applicable to the design.
- (h) 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.
- (i) Ensure WSTP standards and guidelines outlined in D6.1.8 are incorporated into the Detailed Design.

D10.4 Asset Registry & Asset Criticality

D10.4.1 The Consultant shall provide a comprehensive list of all maintainable assets along with associated data in accordance with Appendix 21 - Guideline to Document Asset Registry for New/Upgraded Projects. The list shall be in 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.

- (a) List of assets shall include detailed information for all Project assets and decommissioned assets to allow the City to upload and maintain current asset information in the City's OWAM system.

D10.4.2 Carry out failure mode and effects criticality analysis on the Project assets in accordance with Appendix 22 – O & M Information.

- (a) Facilitated a full day asset criticality workshop between with the City after submission of the 90% Design design. Prior to the workshop:
 - (i) prepopulate and submit a draft asset registry in accordance with Appendix 21 – Guideline to Asset Registry for new/upgraded Projects;
 - (ii) submit an agenda for the asset criticality workshop; and

- (iii) complete P&IDs, PFDs, electrical single line diagrams and any other documents for use in the workshop.

D10.5 Technical Specifications

- (a) Provide a comprehensive specification package for all disciplines and the entire Scope of Services in NMS specification format. Ensure that the following are included:
 - (i) All submittal requirements.
 - (ii) All quality assurance requirements.
 - (iii) Functional requirement specifications;
 - (iv) Process control narrative(s);
 - (v) A major equipment list with reference information to the drawings;
 - (vi) 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. The consultant will include tasks in the Contractors tender package necessary to support the Consultant's commissioning plan.

D10.6 Tender Document

- (a) Provide appropriate tender document(s) using appropriate City template(s) from the City of Winnipeg Materials Management Division website and consult with the City insurance branch for review. Identify and comply with all Materials Management policies and requirements.

D10.7 Construction Plan

- (a) Provide a construction plan that details the proposed construction sequence, schedule, and mitigation of site constraints.
- (b) The plan shall clearly demonstrate how the work will be implemented while maintaining operation of the NEWPCC facility.
- (c) Provide details on the concepts of how the Project will be delivered.
- (d) Include contractor's laydown area and construction access.
- (e) Determine construction impacts on environment and traffic, and appropriate mitigation;
- (f) Include impacts to the operation and maintenance of the current facility that need to be addressed to achieve the Project objectives; and
- (g) Include construction sequencing with associated implementation schedule that takes into consideration.
 - (i) seasonal work,
 - (ii) potential tie-ins to the existing system,
 - (iii) commissioning, and
 - (iv) coordination with other projects occurring at NEWPCC.
- (h) The plan shall be suitable for both City and contractor use.

D10.8 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.

D10.8.1 Integrate a Project training plan within the Project Commissioning Plan.

- (a) The plan shall include how the plant staff shall be trained to competently operate and maintain the Project.
- (b) Details on training requirements are included in Appendix 23 – Training Requirements

D10.9 Prepare detailed shutdown procedures for the project. Include:

- (a) Pre-shutdown requirements,
- (b) Operational notifications - Include required notice periods, department contacts, notification details and responsibilities, including Environmental Standards,
- (c) Contractor requirements - Include scope of work, action required and responsibilities,
- (d) Schedule, and
- (e) Operational requirements - Include all process systems affected, action required and responsibility.

D10.10 Provide a Class 1 cost estimate in accordance with the appropriate AACE International Recommended Practice(s) for the Scope of Services.

- (a) Cost shall include whole life cost (CAPEX, OPEX & NPV).
- (b) Costs shall be presented by area and discipline.
- (c) Costs related to the condition assessment shall be identified separately from the rest of the Scope of Services.
- (d) Provide a draft and final estimate at appropriate stages of the detailed design
- (e) Finalize the estimate after incorporating City review comments on the 90% tender package submission.
- (f) The Class 1 Cost Estimate shall be submitted at least one (1) week prior to sending the Tender for posting by the Materials Management division.

D10.11 Detailed Tender Package

- (a) Prepare a detailed tender package that includes:
 - (i) Tender document(s);
 - (ii) Drawings from all disciplines;
 - (iii) Technical specifications;
 - (iv) Construction plan
 - (v) Project commissioning plan;
 - (vi) A major equipment and instrumentation list with reference information to the drawings;
 - (vii) Applicable reference drawings of the existing site;
 - (viii) Project arc flash study;
 - (ix) Contractor training requirements;
 - (x) Contractor commissioning requirements; and
 - (xi) Any other information required by the contractor.
- (b) Attend a Detailed Design review meeting with the City and incorporate changes arising from that meeting.

D10.12 Submit one (1) electronic copy of the 60% draft detailed tender package for all aspects of the work, including detailed construction drawings and technical specifications.

- (a) 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.
- (b) The Consultant should allow for a twenty-one (21) Calendar Days review period for the City to provide comments. A blackout period of December 24-January 4 will apply to the review period if applicable. This should be accounted for and shown in the proposal.

- (c) Submit electronic copies of the draft tender document and technical specifications in Microsoft Word format.
 - (d) The electronic copies of the draft Drawings shall be submitted in PDF format.
- D10.13 Submit one (1) electronic copy of the 90% draft detailed tender package for all aspects of the work, including all tender package items listed in D10.11.
- (a) the electronic copies of the draft tender document, technical specifications, Project commissioning plan and process control narrative updates shall be submitted in Microsoft Word format.
 - (b) The electronic copies of the draft Drawings shall be submitted in PDF format.
 - (c) The Consultant should allow for a twenty-one (21) Calendar Days review period for the City to provide comments. A blackout period of December 24-January 4 will apply to the review period if applicable. This should be accounted for and shown in the proposal.
 - (d) Conduct a meeting to review the City's comments on the 90% draft tender package.
 - (e) Incorporate all City comments into the final tender package.
- D10.14 Submit issued for construction documents incorporating all addenda into the tender package after successful contractor award, and upon receipt and implementation of City review comments (if any).
- D10.15 Progress Meetings
- (a) Throughout the Detailed Design Phase, meet with the 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.
 - (d) Provide a formal presentation with senior management staff at 90% detailed design stage;
- D10.16 Detailed Design Notes and Calculations Package
- (a) Prepare and submit a detailed design notes and calculations package per discipline and criteria employed in the design.
 - (i) Provide draft Detailed Design notes and calculations package together with the draft Detailed Tender Package to allow for review in parallel.
 - (ii) Submit both PDF and Native Formats including two (2) paper copies of the detailed design notes and calculation package,
- D10.17 Tender Services
- (a) After review by the City insurance branch and 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 request for information from bidders and advice to the City during the tender posting period.
 - (c) Issue addenda to the tender, as required.
 - (d) Arrange for and lead bidder's site visit(s).
 - (e) If required, coordinate and lead a pre-award meeting with contractor.
 - (f) Provide a bids evaluation report that includes
 - (i) review, analysis, comparison, tabulation, calculation, and evaluation of the tenders received.
 - (ii) recommendations for award of Contract

- (iii) justification for the difference in pricing in the award recommendation letter if the bids deviate more than 15% from the Class 1 Cost Estimate and a revised contract estimate, identifying and explaining variations from the earlier formal estimate, and containing recommendation regarding contract award identifying the reasons thereof.

D10.18 Following tender close, submit one (1) electronic copy of the Final Detailed Tender Package including all addenda.

D10.19 Deliverables from the detailed design & tender phase shall include, but not limited to:

- (a) 60%, 90% and issued for construction documents;
- (b) Detailed Tender Package
- (c) Class 1 Cost Estimate; and
- (d) Detailed design notes and calculations package.

D10.19.1 Construction plan and Project commissioning plan shall be submitted as standalone documents

D11. CONTRACT ADMINISTRATION

D11.1 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 throughout the course of the Project. All documents can be found on the City's Infrastructure Planning Office website: <https://www.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm>

Relevant documents include:

- (i) pre-construction meeting agenda and meeting minutes;
 - (ii) proposed change notice;
 - (iii) proposed change notice log;
 - (iv) request for information (RFI);
 - (v) RFI log;
 - (vi) field instruction;
 - (vii) field instruction log;
 - (viii) contract change log;
 - (ix) change of work order (CWO);
 - (x) decision log;
 - (xi) daily construction report;
 - (xii) inspection report;
 - (xiii) meeting minutes;
 - (xiv) site meeting minutes;
 - (xv) project status report;
 - (xvi) Certificate of Substantial Performance;
 - (xvii) Certificate of Total Performance; and
 - (xviii) Certificate of Acceptance.
- (c) 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.
 - (d) 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.

- (e) 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.

D11.2 Contract Administration Services

- (a) Refer to B9.3.1(a) for the City's estimated minimum fee for the Consultant to perform the Contract Administration Services.
- (b) Perform project management functions in accordance with the Project Management Plan and City requirements.
- (c) Administer the construction contract.
- (d) 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 arising from the Project.
- (e) Conduct and chair a pre-construction meeting with WSTP team, the contract administration personnel and the Contractor for the Project and provide minutes.
- (f) 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.
 - (i) Coordinate with the contractor for completion of permits, if applicable in a timely matter.
- (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 WSTP 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) Review and report to the City regarding laboratory, shop and other tests conducted on materials and/or equipment.
- (j) Review and provide recommendations for requests for alternate materials and methods. No alternates shall be approved without written authorization from the City.
- (k) Consult and advise the City during the course of construction.
- (l) Submit a copy of all correspondence relating directly or indirectly to the project, originating from or distributed to parties external to the Consultant, immediately following receipt or dispatch by the Consultant.
- (m) 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.
- (n) Monitor and manage the contractor's schedule.
- (o) Review extra work or contractual claims submitted by the contractor. Provide backup material to the Project Manager as requested.
- (p) 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.
- (q) Coordinate and prepare Change Work Order (CWO) forms regarding the contractor scope of work as required and provide backup material to the Project Manager as requested.
- (r) Review acceptability of inspection and test plans from contractors, vendors or manufacturers.

- (s) Review and respond to contractor Request for Information (RFI)'s in a timely manner.
- (t) Prepare contractor site instructions / clarifications / directives as required.
- (u) Interpret technical aspects of contract as requested by the City.
- (v) 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.
- (w) 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.
- (x) 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.
- (y) 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.
- (z) Witness quality control procedures implemented by the contractor.
- (aa) Provide reference line and elevation control points for the works and check the contractor's adherence.
- (bb) 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.
- (cc) Prepare, update, maintain, and coordinate a deficiency list of all issues identified during inspections by the Consultant or the WSTP team. Coordinate remediation of the deficiency list with the contractor.
- (dd) Coordinate regular construction review meetings. The meetings shall include representatives of the contractor and WSTP team.
 - (i) The typical frequency of meetings shall be weekly during the course of construction, although meeting frequency may vary based upon the level of construction activity.
 - (ii) Prepare and distribute comprehensive meeting minutes within three (3) Business Days. Update the meeting minutes with corrections from other parties. Items requiring immediate actions shall be emailed prior to issuance of the meeting minutes.
- (ee) Prepare, certify, and submit progress estimates to the City for payment to the contractor for construction performed in accordance with the Drawings and specifications.

- (ff) Coordinate and lead a comprehensive, detailed inspection prior to substantial performance, including the contractor and the City. Document and report on all issues identified and coordinate completion of the issues.
- (gg) 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.
- (hh) Coordinate and lead a comprehensive, detailed inspection prior to Total Performance, including the contractor and the City. Document and report on all issues identified and coordinate completion of the issues.
- (ii) Make a recommendation to the Project Manager when the contractor has achieved total performance and upon approval, prepare and issue a certificate of total performance.

D11.3 Resident Engineering Services

- (a) As defined in Appendix 19 and as applicable to this project.
- (b) Provide full time construction inspection and acceptance of the work during installation and construction.
- (c) Coordinate and oversee construction related shut-downs and tie-ins according to the procedures developed in the design phase
- (d) Coordinate inspections of the Works (Consultant, Contractor and City Personnel) to establish the project milestones of Substantial Performance and Total Performance.

D11.4 Non-Resident Engineering Services

- (a) As defined in Appendix 19 and as applicable to this project.
- (b) Update the arc flash study for inclusion in as built drawings.

D11.5 Deliverables from contract administration phase shall include but not be limited to all contract administration documentation such as meeting minutes, RFIs, PCN, CWO, weekly construction reports, submittals, etc.

D12. COMMISSIONING SERVICES

D12.1 General Requirements

- (a) 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. 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.
 - (i) Provide a Commissioning lead appropriately qualified to lead the commissioning work. The Commissioning lead shall be a senior engineer with experience in commissioning projects of similar scope to this Project.
 - (ii) Provide all qualified resources and organization to perform commissioning related activities pertaining to the Consultant's scope.
- (b) Consult with and advise the City during the course of commissioning.
- (c) Provide two (2) half day commissioning workshops
- (d) Provide technical memorandum of commissioning workshops.
- (e) 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.
- (f) Review all commissioning records and ensure that the overall commissioning records demonstrate compliance to the specifications and overall Project design requirements.
 - (i) Ensure all equipment and control system settings are documented.
- (g) Monitor commissioning activities, witness and certify the accuracy of the reported results.

- (h) Sign-off on all commissioning and training records.
- (i) Ensure all Commissioning Team member have clear definition of their role and understanding of their responsibilities.
- (j) Coordinate with the contractor to ensure appropriate measures regarding safety, health and environmental aspects are implemented throughout the commissioning activities.
- (k) Review commissioning documentation for performance, reliability, durability of operation, accessibility, maintainability, and operation efficiency under all conditions of operation.
- (l) Prepare agenda, lead and record minutes of the commissioning meetings.
- (m) Manage the commissioning documentation.
- (n) Ensure the commissioning process meets effluent licensing 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.

D12.2 Planning

- (a) The Consultant is fully responsible for the planning of the overall commissioning activities. This includes but is not limited to:
 - (i) Update the Project commissioning Plan prepared during the Detailed Design Phase and issue to all relevant parties.
 - (ii) Define the commissioning activities.
 - (iii) 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.
- (b) The Consultant shall provide a draft O&M Manual prior to commissioning in accordance with Appendix 17.

D12.3 Pre-Commissioning

- (a) Pre-Commissioning activities will include the factory acceptance testing, on-site inspection, and testing of equipment incorporated into the Project.
 - (i) Records shall be generated for all pre-commissioning inspections and tests.
- (b) The Consultant is responsible to specify all pre-commissioning requirements as part of the Detailed Design.
- (c) The Consultant's responsibilities include but are not limited to:
 - (i) 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.
 - (ii) Witness a selected portion of the pre-commissioning tests (approximately a third).
 - (iii) Review all pre-commissioning records, including testing forms.
 - (iv) Organization and filing of all pre-commissioning records with the City.
- (d) 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.
- (e) Conduct pre-commissioning meetings as applicable

D12.4 Training

- (a) Coordinate and manage training sessions for City personnel for the operation and maintenance of new and upgraded facilities and equipment in accordance with Appendix 23. This includes but not limited to planning and scheduling of training sessions, review of training procedures and training documents prepared by the contractor.
- (b) 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.

- (c) Coordinate to ensure video records of each unique training session are provided to the City. Ensure acceptable and uniform standard of video quality.
- (d) Training materials to be submitted for review and comment prior to on-site training.

D12.5 Commissioning

- (a) All systems and disciplines associated with the Project shall be commissioned.
- (b) Be present on-site during commissioning and witness commissioning activities.
- (c) Start-up, test, verify and document that the project as defined in the Scope of Services including all associated controls and programming perform as designed. Representative operating scenarios shall be tested.
- (d) Ensure all associated signals and controls are functioning in the PCS.
- (e) There are aspects of clarifier control and operation that are outside of the scope of the project. The Consultant should consider the associated clarifier control functions in the Project commissioning Plan.
- (f) The Consultant will consider risks associated with the proper functioning of processes and equipment upstream and downstream of the equipment within scope and plan for appropriate risk treatments.

D12.6 Commissioning Handover Package

- (a) Compile and handover to the City all commissioning documentation, including but not limited to:
 - (i) Project commissioning plans and procedures,
 - (ii) Evidence of commissioning verification,
 - (iii) Deficiency reports and corrective actions taken,
 - (iv) Training material and records, and
 - (v) Other commissioning documents.
- (b) 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.

D13. POST CONSTRUCTION SERVICES

- D13.1 Confirm and ensure complete turnover of project documentation (shop Drawings, record drawings, O&M information, etc.) to the City by the contractor and verify that the documents are in conformance with the construction contract.
- D13.2 Provide final operation and maintenance Information in accordance with Appendix 22. Coordinate with installation contractor(s) and equipment supplier(s) to provide appropriate information for inclusion in Operation & Maintenance Information.
- D13.3 Provide final asset registry in accordance with Appendix 21. It should be similar to the draft asset registry; however, it shall include any assets added or modified, or new information that becomes available subsequent to the issuance of the draft asset registry.
- D13.4 Provide a final construction report to the City within two months of Total Performance. The final construction report shall include the following:
 - (a) A brief summary of the project, including:
 - (i) services accomplished, including the initial and final scope of the Project;
 - (ii) issues encountered during the Project and the resolutions achieved;
 - (iii) final or projected final contract cost.
 - (b) Appendices, including:
 - (i) cost summary;
 - (ii) photographs – typical pre-construction, during construction, and post-construction photographs;

- (iii) tabulation of tenders;
- (iv) change orders;
- (v) summary of progress payments;
- (vi) final Contract schedule;
- (vii) subcontractor list;
- (viii) daily or weekly reports;
- (ix) progress meeting minutes;
- (x) shop Drawings/submittals;
- (xi) field instructions;
- (xii) contractor RFI's & responses;
- (xiii) material test reports;
- (xiv) warranty information;
- (xv) validation documentation;
- (xvi) commissioning documentation; and
- (xvii) certificates of substantial & total performance.

- D13.4.1 The Consultant shall submit three (3) paper copies and one (1) electronic PDF copy of the Final Construction Report.
- D13.5 Provide record drawings on the Project in accordance with Section 3.2.6 As-Built and Record Documents of the Authentication of Electronic and Hardcopy Documents Guideline by Engineers Geoscientists Manitoba.
- D13.5.1 Consultant shall provide record drawings only where infrastructure will be buried as part of the design. Record drawings shall describe the location of the buried infrastructure.
- D13.5.2 Consultant shall meet the following requirements for all as built drawings and record drawings:
- (a) Accuracy levels shall be in accordance with CSA S250-11
 - (b) Horizontal coordinates shall use the UTM coordinate system, referenced to the City of Winnipeg June 90 (LBIS) system; and
 - (c) Vertical coordinates shall be referenced to the NAD83 system.
- D13.5.3 Consultant shall use the horizontal and vertical coordinates indicated in D6.3.13 for as built and record drawings. Consultant shall reconcile datum used.
- D13.6 Provide one (1) year warranty services tied to the date of Total Performance. The warranty services shall include but are not limited to the following:
- (a) provision of inspection services, at the request of the City, during the warranty period of the construction contract to advise the City in writing of any deficiencies and the proposed resolution of the deficiencies. Upon approval of the City, provide the contractor appropriate notice to correct the deficiencies;
 - (b) determination if corrective work is part of contractor's warranty;
 - (c) liaison and coordination with the contractor to repair defective work;
 - (d) conduction of the inspection and approval of warranty work;
 - (e) issuance of instructions for correction of deficiencies;
 - (f) review of updates to O&M information and resolve deficiencies;
 - (g) respond to requests of the City related to the Project; and
 - (h) provision of a detailed inspection of the Project with the Contractor and the City prior to the end of the warranty period and provide to the City in written form associated itemized deficiency list or appropriate recommendation of acceptance of the construction contract work.
- D13.7 Deliverables from Post Construction Services shall include, but not be limited to:

- (a) Record drawings;
- (b) Operation & Maintenance Information;
- (c) Final Asset Registry
- (d) Final Construction Report; and
- (e) Certificate of Acceptance.

D14. CASH ALLOWANCE

- D14.1 The cash allowance indicated in B9.4 are to be used for the document management system, printing of hardcopies and unforeseen circumstances and as follows:
- (a) The cash allowances shall only be used with written permission of the Project Manager and formally documented in a change in Scope of Services form in the City's project management manual templates located at <https://www.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#6>.
 - (b) When such work arises, the Consultant shall prepare a concise scope of work and cost proposal in collaboration with the Project Manager.
 - (c) The proposal shall be submitted to the Project Manager for final approval.
 - (d) No work, arising from the cash allowance, shall commence without the prior approval of the Project Manager.

SUBMISSIONS

D15. AUTHORITY TO CARRY ON BUSINESS

- D15.1 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.

D16. SAFE WORK PLAN

- D16.1 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.
- D16.2 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>

D17. INSURANCE

- D17.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D17.2 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) Project specific professional errors and omissions liability Insurance including:
 - (i) an amount not less than \$5,000,000 per claim and \$5,000,000.00 in the aggregate. Such policy shall include coverage for the Consultant and all Subconsultants.
- D17.2.1 The Consultant's project specific professional liability insurance shall remain in force for the duration of the Project and for twelve (12) months after Total Performance or include a twelve (12) month extended reporting period.
- D17.3 The policies required in D17.2(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.
- D17.4 The Consultant shall require any Consultants hired to perform geo technical drilling and sample collecting or closed-circuit television to procure and maintain, at its own expense and cost, comparable insurance to that set forth under D17.2(a) and D17.2(b).
- D17.5 The Consultant shall require each of its Subconsultants hired for design, architectural or engineering services as outlined in the Scope of Services to provide comparable insurance to that set forth under D17.2(a) should they be required on site.
- D17.6 The Consultant shall provide the Project Manager with a certificate(s) of insurance in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any 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 D17.9.
- D17.7 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.
- D17.8 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.
- D17.9 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

D18. COMMENCEMENT

- D18.1 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.
- D18.2 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 D15;
 - (ii) evidence of the insurance specified in D17.
- (b) the Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting.

D18.3 The City intends to award this Contract by May 28, 2021.

D19. COVID-19 SCHEDULE DELAYS

- D19.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Services shall be performed by the Consultant with due consideration to the health and safety of workers and the public with directives from health authorities and various levels of government, and in close consultation with the Project Manager.
- D19.2 If the Consultant is delayed in the performance of the Services by reason of the COVID-19 pandemic, the Services schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D19.3 Within seven (7) Calendar Days of the award of Contract, the Consultant shall declare whether COVID-19 will affect the start date. If the Consultant declares that COVID-19 will affect the start date, the Consultant shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff or work by others.
- D19.4 For any delay related to COVID-19 and identified after Services have commenced, the Consultant shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D19.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D19.5 Any time or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Project Manager, shall be documented in accordance with C8.
- D19.6 The Consultant will recognize the COVID-19 pandemic as a project risk and plan in accordance with:
- (a) The schedule for design services shall minimize activities at the NEWPCC facility and in particular minimize the need for in-person interaction with operations and maintenance staff.
 - (b) The Consultant shall consider mitigations for schedule risk due to COVID-19 and include them in their plans.
- D19.7 The Services schedule, including the durations identified in the Contract, will be adjusted to reflect delays accepted by the Project Manager.

THIRD PARTY AGREEMENTS

D20. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D20.1 In the event that funding for the Services of the Contract is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, the following terms and conditions shall apply, as required by the applicable funding agreements.
- D20.2 Further to D20.1, in the event that the obligations in D20 apply, actual costs legitimately incurred by the Consultant as a direct result of these obligations ("Funding Costs") shall be determined by the actual cost to the Consultant and not by the valuation method(s) outlined in C7.4. In all other respects Funding Costs will be processed in accordance with Changes in Services under C7.
- D20.3 For the purposes of D20:
- (a) "**Government of Canada**" includes the authorized officials, auditors, and representatives of the Government of Canada; and

- (b) **“Government of Manitoba”** includes the authorized officials, auditors, and representatives of the Government of Manitoba.

D20.4 Modified Insurance Requirements

D20.4.1 If not already required under the insurance requirements identified in D17, the Consultant will be required to obtain and maintain professional liability insurance in an amount of no less than one million dollars (\$1,000,000) inclusive per claim. Such policy shall be maintained for at least twenty four (24) months after Total Performance.

D20.4.2 The Consultant shall obtain and maintain third party liability insurance with minimum coverage of two million dollars (\$2,000,000.00) per occurrence on all licensed vehicles operated at the Site. In the event that this requirement conflicts with another licensed vehicle insurance requirement in this Contract, then the requirement that provides the higher level of insurance shall apply.

D20.4.3 Further to D17.6 insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Services as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.

D20.4.4 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D20.5 Indemnification By Consultant

D20.5.1 In addition to the indemnity obligations outlined in C13 of the General Conditions for Consultant Services, the Consultant agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Consultant or arising from this Contract or the Services, or from the goods or services provided or required to be provided by the Consultant, except those resulting from the negligence of any of the Government of Canada's or the Government of Manitoba's Ministers, officers, servants, employees, or agents, as the case may be.

D20.6 Records Retention and Audits

D20.6.1 The Consultant shall maintain and preserve accurate and complete records in respect of this Contract and the Services, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Services during the term of the Contract and for at least six (6) years after Total Performance. Those records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.

D20.6.2 In addition to the record keeping and inspection obligations outlined in C7.16 of the General Conditions for Consultant Services, the Consultant shall keep available for inspection and audit at all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D20.6.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.

D20.7 Other Obligations

D20.7.1 The Consultant consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.

- D20.7.2 If the Lobbyists Registration Act (Manitoba) applies to the Consultant, the Consultant represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.
- D20.7.3 The Consultant shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Services.
- D20.8 The Consultant shall properly account for the Services provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.

APPENDICES

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