



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 467-2022**

**PROFESSIONAL CONSULTING SERVICES FOR PUMP STATIONS CHLORINE  
SYSTEM UPGRADES**

## TABLE OF CONTENTS

### PART A - BID SUBMISSION

- Form A: Bid/Proposal
- Form B: Fees

### PART B - BIDDING PROCEDURES

|  |    |
|--|----|
| B1. Contract Title   | 1  |
| B2. Submission Deadline  | 1  |
| B3. Site Investigation   | 1  |
| B4. Enquiries  | 2  |
| B5. Confidentiality  | 3  |
| B6. Addenda  | 3  |
| B7. Proposal Submission  | 3  |
| B8. Proposal (Section A)   | 4  |
| B9. Fees (Section B)   | 4  |
| B10. Experience of Proponent and Subconsultants (Section C)          | 6  |
| B11. Experience of Key Personnel Assigned to the Project (Section D) | 6  |
| B12. Project Understanding, Methodology, and schedule (Section E)    | 7  |
| B13. Disclosure  | 8  |
| B14. Conflict of Interest and Good Faith                             | 9  |
| B15. Qualification   | 10 |
| B16. Opening of Proposals and Release of Information                 | 11 |
| B17. Irrevocable Offer   | 11 |
| B18. Withdrawal of Offers  | 11 |
| B19. Interviews  | 11 |
| B20. Negotiations  | 12 |
| B21. Evaluation of Proposals   | 12 |
| B22. Award of Contract   | 13 |

### PART C - GENERAL CONDITIONS

|                        |   |
|------------------------|---|
| C0. General Conditions | 1 |
|------------------------|---|

### PART D - SUPPLEMENTAL CONDITIONS

#### General

|   |    |
|---|----|
| D1. General Conditions  | 1  |
| D2. Project Manager   | 1  |
| D3. Background  | 1  |
| D4. Definitions   | 2  |
| D5. Accessible Customer Service Requirements                  | 4  |
| D6. Relevant Documents and Historical Drawings                | 4  |
| D7. General Requirements                                      | 5  |
| D8. Scope of Services   | 11 |
| D9. Project Management  | 12 |
| D10. Historical Information Review and Stakeholder Engagement | 13 |
| D11. Geotechnical Engineering Services                        | 14 |
| D12. Detailed Design and Tender                               | 15 |
| D13. Contract Administration – Non Resident Services          | 17 |
| D14. Contract Administration – Resident Services              | 19 |
| D15. Commissioning Services                                   | 20 |
| D16. As-Built Drawings  | 21 |
| D17. Project Closeout   | 21 |
| D18. Additional Work Allowance                                | 23 |
| D19. Site Security  | 23 |

#### Submissions

|                                     |    |
|-------------------------------------|----|
| D20. Authority to Carry on Business | 23 |
| D21. Safe Work Plan                 | 23 |

|  |    |
|--|----|
| D22. Insurance   | 24 |
| <b>Schedule of Services</b>  |    |
| D23. Commencement  | 25 |
| D24. Critical Stages   | 25 |
| D25. COVID-19 Schedule Delays  | 25 |
| <b>Measurement and Payment</b>                                       |    |
| D26. Invoices  | 26 |
| D27. Payment   | 26 |
| <b>Third Party Agreements</b>  |    |
| D28. Funding and/or Contribution Agreement Obligations               | 26 |
| <b>PART E - SECURITY CLEARANCE</b>                                   |    |
| E1. Security Clearance   | 1  |
| <b>APPENDIX A – DEFINITION OF PROFESSIONAL CONSULTING SERVICES</b>   |    |
| <b>APPENDIX B – RELEVANT DOCUMENTS</b>                               |    |
| <b>APPENDIX C – HISTORICAL DRAWINGS</b>                              |    |
| <b>APPENDIX D – NON-DISCLOSURE AGREEMENT</b>                         |    |
| <b>APPENDIX E – PROCESS AND INSTRUMENTATION DIAGRAM REQUIREMENTS</b> |    |
| <b>APPENDIX F – AUTOMATION ENGINEERING REQUIREMENTS</b>              |    |
| <b>APPENDIX G – TRAINING REQUIREMENTS SAMPLE SPECIFICATION</b>       |    |
| <b>APPENDIX H – DESIGN CALCULATION REQUIREMENTS</b>                  |    |
| <b>APPENDIX I – COMMISSIONING APPROACH</b>                           |    |
| <b>APPENDIX J – COMMISSIONING STRATEGIES</b>                         |    |
| <b>APPENDIX K – EQUIPMENT LIST SAMPLE</b>                            |    |
| <b>APPENDIX L – SUBMITTAL LIST SAMPLE</b>                            |    |
| <b>APPENDIX M – DESIGN BASIS MEMORANDUM SAMPLE</b>                   |    |

## PART B - BIDDING PROCEDURES

### B1. CONTRACT TITLE

B1.1 PROFESSIONAL CONSULTING SERVICES FOR PUMP STATIONS CHLORINE SYSTEM UPGRADES

### B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, September 23, 2022.

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 tour of the following Sites on August 31, 2022, starting at 9:00 a.m.:

- (a) McPhillips Regional Pumping Station (RPS), 360 McPhillips Street,
- (b) Hurst RPS, 60 Hurst Way, Winnipeg, Manitoba; and
- (c) MacLean RPS, 875 Lagimodière Boulevard, Winnipeg, Manitoba.

B3.1.1 The Site Investigation will commence at the McPhillips RPS located at 360 McPhillips Street and will proceed to the other locations from here.

- (a) Proponents must provide their own transportation between the facilities.

***Note: Hillock Avenue adjacent to the McPhillips RPS is a no parking zone.***

B3.1.2 Proponents are required to register for the Site investigations by contacting the Project Manager **no later than 4:00 p.m. on August 29, 2022 with the required security clearances completed.**

B3.1.3 Proponents registered for a Site investigation must provide the City of Winnipeg's (City's) Project Manager with a Global Sanctions & Politically Exposed Persons Check obtained not earlier than one (1) year prior to the Site investigation.

- (a) The Global Sanctions & Politically Exposed Persons Check may be obtained from Sterling Talent Solutions. Proponents must have a Sterling Talent Solutions account prior to requesting individual background checks. In the event a Proponent does not have Sterling Talent Solutions account the setup of the account should be done a minimum of 72 hours prior to requesting the first check. A Sterling Talent Solutions account can be setup using the following link:

<http://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>

**Note that the check will take up to 48 hours to complete.** Refer to E1.1 of PART E - Security Clearance for further information.

- (b) The results of the Global Sanctions & Politically Exposed Persons Check must be received by the City directly through Sterling Talent Solutions. Proponents must set up an account with Sterling Talent Solutions directly under their company name and grant Sterling Talent Solutions permission to share the results of the Global Sanctions & Politically Exposed Persons Checks with the City.

B3.1.4 Attendees are required to wear grade 1 safety shoes (CSA Green Triangle), hard hats, hi-vis vests, and safety glasses for the Site investigations. In the event the Site is under construction and in the control of others additional safety equipment may be required as directed by the Site specific safety plan.

B3.1.5 Depending on the number of Proponents anticipated to take part in the Site investigations and the COVID-19 requirements at the time of the Site investigations, second Site investigation dates may be proposed.

- B3.2 Proponents are not permitted to take photographs or videos at the Site investigations. The Proponent may request pictures of specific areas or equipment from the Project Manager. Subject to the City's approval, the requested photographs will be shared with the Proponents.
- B3.3 Further to D25, it is acknowledged that COVID-19 may impact how the Site investigations are conducted. A number of protocols have been implemented for the safety of all participants.
- B3.3.1 The Site investigation will be carried out in accordance with the most stringent applicable Federal, Provincial, local government, and City of Winnipeg (City) guidelines and regulations for COVID-19 in place at the time of the Site investigation.
- B3.3.2 The Proponent's representative will be required to complete the self-assessment the day prior to and the day of the Site investigation. If the self-assessment recommends an additional COVID-19 assessment or self-isolation, the Proponent will be required to assign a different representative for the Site investigation with the appropriate clearances indicated in B3.1.3.
- B3.4 Notwithstanding B3.1 and B3.3, the City may cancel or reschedule the Site investigations due to health and safety concerns stemming from COVID-19 or to adhere to current COVID-19 regulations.
- B3.4.1 In the event that the Site investigations are unable to be held due to COVID-19, the City will consider providing virtual tours. This may include photographs and/or videos. Proponents will be provided the opportunity to request specific photographs and videos, subject to approval by the City.
- B3.5 Although attendance at the Site investigations is not mandatory, the City strongly suggests that Proponents attend.
- B3.6 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 (RFP), 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 RFP 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 RFP 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 B3.1 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 RFP 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 RFP, 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](http://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 B3.1, 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) **Section A** - Form A: Bid/Proposal in accordance with B8;
  - (b) **Section B** - Fees in accordance with B9.
- B7.2 The Proposal should also consist of the following components:
- (a) **Section C** - Experience of Proponent and Subconsultants in accordance with B10;
  - (b) **Section D** - Experience of Key Personnel Assigned to the Project, in accordance with B11; and
  - (c) **Section E** - Project Understanding, Methodology, and Schedule in accordance with B12.
- 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 Proposal format, including number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering, and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a

Proposal which provides the requested information for evaluation and other information which illustrates the strength of their proposed solution.

B7.5 The Proposal shall be submitted electronically through MERX at [www.merx.com](http://www.merx.com).

B7.5.1 Proposals will **only** be accepted electronically through MERX.

B7.6 Proponents are advised that inclusion of terms and conditions inconsistent with the RFP, will be evaluated in accordance with B21.1(a).

B7.7 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 D6 Scope of Services.

- (a) Project Management in accordance with D9;
  - (b) Historical Information Review and Stakeholder Engagement in accordance with D10;
  - (c) Geotechnical Engineering Services in accordance with D11;
  - (d) Detailed Design and Tender in accordance with in D12;
  - (e) Contract Administration - Non-Resident Services in accordance with D13;
  - (f) Commissioning Services in accordance with D15;
  - (g) As-Built Drawings in accordance with D16;
  - (h) The Fixed Fee for As-Built and Record Drawings shall be twenty thousand dollars (\$20,000.00), to be paid upon satisfactory completion of the As-Built and Record Drawings as described in D15; and
  - (i) Project Closeout in accordance with D17.
- B9.3 The Proposal shall include a Time Based Fee schedule for the following sections identified in D6 - Scope of Services:
- (a) Resident Services in accordance with D14;
    - (i) Time-Based Fees shall be based on on-site inspection services as described in D14.
    - (ii) For Proposal purposes these fees shall be based on eight hundred (800) hours of inspection.
    - (iii) The number of hours listed in B9.3(a)(ii) is to be considered approximate only. The City will use this number for the purpose of comparing bids.
    - (iv) The number of hours for which payment will be made to the Proponent for resident services is to be determined by the actual number of hours worked by the Proponent.
  - (b) Additional Work Allowance in accordance with D18.
    - (i) The Proponent shall include an additional work allowance of fifty thousand dollars (\$50,000.00) in their Proposal.
    - (ii) The additional work allowance is to be used for engineering and design services that arise due to unforeseen conditions that may occur during the Project.
    - (iii) The additional work allowance is to be included in the calculation of total Fees proposed by the Proponent.
    - (iv) The additional work allowance shall only be used with written permission of the Project Manager and formally documented in a Change in Scope of Services form.
- B9.4 There will be no fee escalation allowed for yearly adjustments, promotion, etc. The fee scale shall be fixed for the duration of the Project.
- B9.5 Adjustments to Fees will only be considered based on increases to the Scope of Services.
- B9.5.1 The City will not consider an adjustment to the Fees based on changes in the Project budget or the Final Total Construction Cost.
- B9.6 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.
- B9.7 The Fee Proposal shall also include an allowance for Allowable Disbursements as defined in C1.1(b), but shall exclude the costs of any materials testing, soils and hazardous materials investigation during construction.
- B9.8 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 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B9.9.1 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 D28. Any such costs shall be determined in accordance with D28.

**B10. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)**

B10.1 Proposals should include:

- (a) details demonstrating the history and experience of the Proponent and Subconsultants in providing programming; design, management of the project, contract administration services, and commissioning services on two projects only of similar complexity, scope and, value.
  - (i) If more than two projects are submitted, only the first two referenced projects will be evaluated.

B10.2 For each project listed in B10.1(a), the Proponent should submit:

- (a) description of the project;
- (b) role of the consultant;
- (c) project's original contracted consulting cost and final consulting cost;
  - (i) where the original contracted consulting cost and the final contracted consulting cost differ, the Proponent should submit an explanation;
- (d) design schedule (anticipated project schedule and actual project delivery schedule
  - (i) where the anticipated project design schedule and the actual project design delivery schedule differ, the Proponent should submit an explanation;
- (e) project owner; and
- (f) reference information (two current names with telephone numbers and email addresses per project).
  - (i) References should have worked directly on the projects described, such as project manager or owner's representative.
  - (ii) References may be used to confirm the information provided in the Proposal.
  - (iii) Other sources not named in the references may be contacted to verify information provided.

B10.2.1 Where applicable, information should be separated into Proponent and Subconsultant project listings.

B10.3 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.

**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) Identify by name all personnel with over 5% of the total Project hours.
- (b) 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) the Proponent's project manager;
- (b) the lead process professional;
- (c) the lead electrical professional;
- (d) the automation professional;

- (e) the lead mechanical professional;
- (f) the lead structural professional;
- (g) the lead civil professional;
- (h) the resident contract administrator; and
- (i) the non-resident contract administrator.

B11.2.1 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; and
- (e) years of experience in design and construction.

B11.2.2 Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B11.1.1.

B11.2.3 For each Key Personnel identified, list at two comparable projects in which they have played a primary role similar to that proposed for this Project. If a project selected for a Key Personnel is included in B10, provide only the project name and the role of the Key Personnel. For other projects provide the following:

- (a) description of project;
- (b) role of the person;
- (c) project owner; and
- (d) reference information (two current names with telephone numbers and email addresses 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 verify the information provided in the Proposal.
  - (iii) Other sources not named in the references may be contacted to verify information provided.

B11.2.4 If a Key Personnel is assigned to multiple roles (as identified in the organizational chart referred to in B11.1.1), two (2) comparable projects as detailed in B11.2.3 are required for each role of the Key Personnel.

## **B12. PROJECT UNDERSTANDING, METHODOLOGY, AND SCHEDULE (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. The methods shall include:

- (a) activities to be performed either by the Proponent's employees or by Subconsultants at an office located outside of 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 the various phases of the Project.

B12.2 Proposals shall include:

- (a) the methodology that the Proponent intends to use to carry out the Scope of Services;
  - (i) the methodology should be presented in accordance with the Scope of Services identified in D6– Scope of Services.
- (b) the Proponent's team's understanding of the broad functional and technical requirements;

- (c) the work activities related to the Scope of Services;
- (d) the Deliverables associated with the Scope of Services;
- (e) all significant assumptions and interpretations related to the Scope of Services; and
- (f) any other insight, proposed usage of innovation, or identification of risks related to the Scope of Services that demonstrates the Proponent's suitability to the Project.

**B12.3** The Proposal should include Form P: Person Hours for all disciplines and or phases identified in D6 Scope of Services.

**B12.3.1** The total Fees on Form P: Person Hours should match Fees submitted in response to B9.

**B12.3.2** For each Key Personnel 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 identified in D6.

**B12.3.3** The hours and resources in the Proponents Form P: Person Hours should reflect the hours and resources indicated in the Proponents schedule identified in B12.4.

**B12.3.4** Proponents may use Form P: Person Hours or a table of their own design provided it includes all information requested in accordance with B12.3.

**B12.3.5** A sample of Form P: Person Hours can be found at <https://winnipeg.ca/matmgt/templates/information.stm>

**B12.4** The Proposal should include a carefully considered critical path method (CPM) schedule addressing each requirement of the Scope of Services identified in D6.

**B12.4.1** The schedule shall be prepared using Microsoft Project or similar project management software.

**B12.4.2** The schedule shall be complete with the identified critical path, resource assignments (engineering disciplines), durations (weekly timescale) and milestone dates or events.

**B12.4.3** Further to B12.4, the Proponent's schedule should reflect:

- (a) the critical stages listed in D24. The Proponent shall give justification in the event that the milestone dates listed in the schedule deviate;
- (b) the hours and resources indicated on Form P: Person Hours identified in B12.3;
- (c) City review requirements;
- (d) Project meetings frequencies; and
- (e) submission dates for required Deliverables.

**B12.4.4** Provide narrative that will describe how slippage in the proposed schedule will be managed and how the schedule will be re-evaluated to determine the impacts to the critical paths.

### **B13. DISCLOSURE**

**B13.1** 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.

**B13.2** The Persons are:

- (a) Dillon Consulting Limited;
- (b) Hatch, Ltd.;
- (c) SNC-Lavalin Inc.;
- (d) Jacobs Engineering; and
- (e) Trek Geotechnical Inc.

B13.3 The following reports were prepared by the organizations identified in B13.2 and are also listed in Appendix B:

- (a) The In-town Pumping Stations Preliminary Design of Disinfection Upgrades (Dillon Consulting Limited)
  - (i) Phase 1 Preliminary Engineering – System Assessment (2018)
  - (ii) Phase 2 Preliminary Engineering – Design and Construction Management (2020)
- (b) Technical Memorandum - Ventilation Requirements for Chlorine Rooms (Hatch, 2021)
- (c) MacLean Generator Load System Assessment (SNC-Lavalin, 2022)
- (d) McPhillips Generator Load System Assessment (SNC-Lavalin, 2019)
- (e) Drinking Water Quality Strategy (CH2M Hill now Jacobs, 2012)
- (f) McPhillips Regional Pumping Station Cooling Upgrades Geotechnical Report (Trek, 2021)
- (g) MacLean Regional Pumping Station Cooling Upgrades Geotechnical Report (Trek, 2021)

#### **B14. CONFLICT OF INTEREST AND GOOD FAITH**

B14.1 Proponents, by responding to this RFP, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B14.2 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.

B14.3 In connection with its Proposal, each entity identified in B14.2 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.

B14.4 Without limiting B14.3, 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.

- B14.5 Without limiting B14.3, 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 B14.4 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.
- B14.6 The final determination of whether a perceived, potential, or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

## **B15. QUALIFICATION**

- B15.1 The Proponent shall:
- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
  - (b) be financially capable of carrying out the terms of the Contract;
  - (c) have all the necessary experience, capital, organization, and equipment to perform the Services in strict accordance with the terms and provisions of the Contract;
  - (d) have or establish and staff an office in Winnipeg for the duration of the Project.
- B15.2 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>
- B15.3 The Proponent and/or any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:
- (a) have successfully carried out services for the programming; design, management of construction and contract administration for architectural and/or engineering projects of similar complexity, scope and value; and to those required for this Project; and
  - (b) be fully capable of performing the Services required to be in strict accordance with the terms and provisions of the Contract;
  - (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;
- (e) undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba;
- (f) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B15.4 and D4.1(a)); and
- (g) provide the Security Clearances as identified in PART E - Security Clearances.

B15.4 Further to B15.3(f), the Proponent acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at <http://www.accessibilitymb.ca/training.html> for anyone that may have any interaction with the public on behalf of the City of Winnipeg.

B15.5 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.

B15.6 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.

## **B16. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

B16.1 Proposals will not be opened publicly.

B16.2 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](http://www.merx.com).

B16.3 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).

B16.3.1 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.

B16.4 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.

## **B17. IRREVOCABLE OFFER**

B17.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B17.2 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.

## **B18. WITHDRAWAL OF OFFERS**

B18.1 A Proponent may withdraw his/her Proposal without penalty prior to the Submission Deadline.

## **B19. INTERVIEWS**

B19.1 The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

## **B20. NEGOTIATIONS**

- B20.1 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.
- B20.2 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.
- B20.3 If, in the course of negotiations pursuant to B20.2, 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.

## **B21. EVALUATION OF PROPOSALS**

- B21.1 Award of the Contract shall be based on the following evaluation criteria:
- |   |             |
|---|-------------|
| (a) compliance by the Proponent with the requirements of the RFP or acceptable deviation therefrom: | (pass/fail) |
| (b) qualifications of the Proponent and the Subconsultants, if any, pursuant to B15:                | (pass/fail) |
| (c) Fees; (Section B)   | 40%         |
| (d) Experience of Proponent and Subconsultant; (Section C)  | 10%         |
| (e) Experience of Key Personnel Assigned to the Project; (Section D)                                | 20%         |
| (f) Project Understanding, Methodology, and Schedule (Section E)                                    | 30%         |
- B21.2 Further to B21.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations, or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B21.3 Further to B21.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is qualified.
- B21.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B21.1(a) and B21.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B21.5 Further to B21.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.
- B21.6 Further to B21.1(d), Experience of Proponent and Subconsultants (Section C) will be evaluated considering the information provided in response to B10, including but not limited to the following criteria:
- |   |
|---|
| (a) similarity of the Proponent's past referenced projects to this Project; and   |
| (b) performance of the Proponent on past referenced projects included in the RFP and any City projects including to but not limited to: |
| (i) adherence to project budget;  |
| (ii) adherence to project schedule; and   |
| (iii) overall satisfaction with the Proponent.  |

- B21.7 Further to B21.1(e), Experience of Key Personnel Assigned to the Project (Section D) will be evaluated considering the experience and qualifications of the Consultants and Subconsultant personnel on projects of comparable size and complexity, considering the information provided in B11, including but not limited to the following criteria:
- (a) availability of Key Personnel;
  - (b) appropriateness of related years of experience of the Key Personnel;
  - (c) relevancy of experience of the Key Personnel;
  - (d) appropriateness of approach to overall team formation and coordination of team members.
    - (i) Proposals that receive less than half the available evaluation points for Experience of Key Personnel Assigned to the Project (Section D) will be rejected in accordance with B22.3.
- B21.8 Further to B21.1(f), Project Understanding, Methodology, and Schedule will be evaluated considering the information provided in response to B12, including but not limited to the following criteria:
- (a) appropriateness of the project management approach;
  - (b) consistency and completeness of the methodology;
  - (c) appropriateness of hours and personnel assigned to individual tasks;
  - (d) Proponent's understanding of the Project, including the Deliverables, risks, and constraints;
  - (e) demonstration of insight beyond the information presented in this RFP;
  - (f) completeness of the Project schedule;
  - (g) logic and sequencing of the tasks in the Project schedule, and
  - (h) appropriateness of the methodology to deal with slippage of the Project schedule.
    - (i) Proposals that receive less than half the available evaluation points for Project Understanding, Methodology, and Schedule (Section E) will be rejected in accordance with B22.3.
- B21.9 Notwithstanding B21.1(d) to B21.1(f), where Proponents fail to provide a response to B7.2(a) to B7.2(c), the score of zero may be assigned to the incomplete part of the response.
- B21.10 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B19.
- B21.11 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.

## **B22. AWARD OF CONTRACT**

- B22.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B22.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be qualified, and the Proposals are determined to be responsive.
- B22.2.1 Without limiting the generality of B22.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the 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.

- B22.3 Where an award of Contract is made by the City, the award shall be made to the qualified Proponent submitting the most advantageous offer.
- B22.4 The City may, at its discretion, award the Contract in phases.
- B22.5 Further to B22.4 the City reserves the right to negotiate and award future phases to the successful Proponent.
- B22.6 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
- B22.6.1 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.
- B22.7 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(o).
- B22.8 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 D28 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B22.9 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.
- B22.10 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](http://www.winnipeg.ca/matmgt/gen_cond.stm).
- C0.2 A reference in the RFP to a section, clause or subclause with the prefix “C” designates a section, clause or subclause in the *General Conditions for Consultant Services*.

## PART D - SUPPLEMENTAL CONDITIONS

### GENERAL

#### D1. GENERAL CONDITIONS

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

#### D2. PROJECT MANAGER

D2.1 The Project Manager is:

Jeff Brooks, C.E.T.

Telephone No. 204 806-1522

Email Address: jeffb Brooks@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. BACKGROUND

D3.1 The MacLean, Hurst, and McPhillips RPSs use chlorine gas to boost the available chlorine in the distribution system to maintain a 1.0 mg/L free chlorine residual in the Regional Water Distribution System (RDS).

D3.2 The existing chlorine systems at the RPS have the chlorine stored in approved transportation and storage vessels called Tonners.

D3.3 The storage, handling, and utilization of the Tonners occurs in the Tonner Room of each RPS. At any time, two Tonners are available online at each RPS for dosing to the RDS with several other full and empty Tonners in storage.

D3.4 A load scale situated beneath the two online Tonners at each RPS is used to monitor the amount of remaining chlorine available in these Tonners.

D3.5 The chlorine dosing systems operates at pressures below atmospheric pressure to reduce the possibility of a chlorine gas leak in the Tonner Room and the adjacent Chlorinator Room, which houses the eductors and chlorinators.

D3.6 In the event of a chlorine leak, chlorine gas detectors located in the Tonner Room will shutdown the chlorine dosing system at the Tonners and the alarms will annunciate. In addition, the automatic operation of the ventilation system will de-energize to prevent the release of chlorine gas to adjacent properties.

D3.7 In 2017, Dillon Consulting Inc. prepared a preliminary design for the upgrades to the chlorine systems at the RPSs. The result of the preliminary design included changes to the ventilation system, the installation of dry type chlorine gas scrubbers, and other safety modifications at the MacLean, Hurst and McPhillips RPS.

D3.8 In 2021, Hatch, Ltd. prepared a technical memorandum reviewing the ventilation rates spaces used for storage and metering of chlorine at the RPSs.

D3.9 In 2022, SNC-Lavalin, prepared a load study of the essential power generators at the MacLean RPS.

#### D4. DEFINITIONS

D4.1 When used in this RFP:

- (a) **“ACH”** means air changes per hour;
- (b) **“ACIGH”** means American Conference of Governmental Industrial Hygienists;
- (c) **“Additional Work Allowance”** means a cash allowance that is to be used for engineering and project management in the event pre-existing unforeseen Site conditions or City instigated changes that arise during the various stages of the Project;
- (d) **“AHJ”** means Authority Having Jurisdiction which is an organization, office or individual responsible for enforcing the requirements of a code, standard or by-law, or for approving equipment, materials, and installation or a procedure;
- (e) **“ANSI”** means American National Standards Institute;
- (f) **“As-Built Drawings”** means drawings prepared by a third party, or by the professional using information furnished by the contractor or other field staff;
- (g) **“ASHRAE”** means American Society of Heating, Refrigeration and Air-conditioning Engineers;
- (h) **“ASME”** means American Society of Mechanical Engineers;
- (i) **“AWWA”** means American Water Works Association;
- (j) **“CAD”** means AutoCAD drawings;
- (k) **“Chlorinator”** means a system used for measuring the flow, controlling the dose, and reducing the pressure to vacuum for the chlorine gas feed system. Portions of the Chlorinator are located in the Tonner Room (pressure reducing regulator) and the remaining components are located in the Chlorinator Room;
- (l) **“Chlorinator Room”** means the room within the RPSs where the eductor and chlorinator are located;
- (m) **“Class 1 Estimate”** means an estimate used to check tenders. The maturity level of the final overall design Deliverables shall range from 65 percent to 100 percent. The typical costing methodology shall be detailed unit costs with detailed take-off items. The expected low to high variation in the accuracy range based on the complexity and remoteness of this Work shall be minus 10 percent to plus 15 percent with an 80 percent confidence interval;
- (n) **“Commissioning”** means the process of verifying that equipment, unit-processes, systems, subsystems, and facility areas are installed, tested, and capable of being operated and maintained to perform in conformance with the Drawings and specifications. Commissioning includes, but is not limited to, satisfactory delivery, installation, testing, demonstration, performance verification, and document delivery for all equipment and unit processes required under the work;
- (o) **“Competent Person”** means a worker, who in relation to specific work:
  - (i) is qualified because of education, knowledge, training, and experience to perform the work; and
  - (ii) is familiar with the codes, standards, by-laws, regulations, and other legislation that are applicable to the work;
- (p) **“Construction Documents”** means the Drawings, specifications, schedules, and supporting documents issued for construction which are revised to any and all revisions from the tender period including requests for equals that form part of the construction contract;
- (q) **“Consultant Progress Report”** as described in D8.3;
- (r) **“CPM”** means critical path method used to determine the longest stretch of dependent activities and measuring the time required to complete activities from start to finish;
- (s) **“Critical Infrastructure”** means components system that cannot typically be taken out of service for extended periods to facilitate construction and inadvertent damage caused to the component would likely have catastrophic consequences;

- (t) “**CSA**” means Canadian Standards Association;
- (u) “**CWO**” means a change work order;
- (v) “**DBM**” means Design Basis Memorandum a document prepared by the Consultant during the design phase, to establish the basic design parameters for the Project;
- (w) “**Emergency Ventilation System**” means a ventilation system operating using either a mechanical draft or a natural draft. The system is activated either automatically by high levels of a contaminant in the environment or manually to control or remove entirely the level of the contamination from the space. For the purpose of this RFP, a chlorine gas scrubber with an appropriate make-up outside air source is considered an Emergency Ventilation System;
- (x) “**Historical Drawings**” means technical drawings and sketches of the existing facilities, systems, and/or processes that have not been confirmed for accuracy and relevancy to the current installed conditions on Site;
- (y) “**HVAC**” means the heating, ventilation, and air-conditioning systems of a building;
- (z) “**ILD**” means Instrument Loop Diagram: An engineering drawing which symbolically represents a single control loop identifying control components and interconnections. Special situations may necessitate a combination of loops on one drawing. A loop diagram may document electrical or pneumatic instruments or a combination of both;
- (aa) “**I/O**” means an input or output from an instrumentation device or panel, which is either an analog signal, a digital signal, or an interlock;
- (bb) “**Key Personnel**” means an individual designated in a Proponent’s Proposal Submission to perform a lead role in one or more of the proposed key organizational positions indicated in this RFP for the Proponent or its team members;
- (cc) “**MCC**” means a Motor Control Centre;
- (dd) “**MLD**” means a flow rate of a fluid measured in millions of litres per day;
- (ee) “**Occupied Space Ventilation System**” means a ventilation system that is energized prior to anyone entering the Tonner Room or Chlorinator Room for standard operating procedures in the space up to and including Tonner change outs. The occupied space ventilation system operates when the chlorine detectors in the space are registering readings at or below the eight-hour threshold weighted average for chlorine gas;
- (ff) “**PDF**” means a Portable Document Format electronic file;
- (gg) “**% Work Complete**” means the percent maturity level of a particular task and/or Deliverable for the Project. This is not a reflection of the actual effort/cost expended in relation to the budgeted effort/cost;
- (hh) “**P&ID**” means process and instrumentation diagram which is a detailed diagram in that shows the piping and process equipment together with the instrumentation and control devices;
- (ii) “**PLC**” means programmable logic controller;
- (jj) “**PLC Panel**” means a rated electrical/instrumentation enclosure that houses PLCs, cable management systems, uninterruptible power supply (UPS), relays, field terminations, etc. used in the control of processes;
- (kk) “**RDS**” mean Regional Water Distribution System;
- (ll) “**Record Drawings**” means drawings that are prepared by the reviewing professional after verifying in detail the actual conditions of the completed project;
- (mm) “**RPS**” mean Regional Pumping Station;
- (nn) “**SCADA**” means Supervisory Control and Data Acquisition which is a control system architecture that uses computers, networked data communications, and graphical user interfaces for high-level process supervisory management, but uses other peripheral devices such as programmable logic controllers and discrete controllers to interface to the process plant or machinery;

- (oo) **“Scope of Service”** means all Services executed under this Contract;
- (pp) **“Three-Point Estimate”** means a weighted average of the optimistic, likely, and pessimistic time lines or costs for a task and shown as the anticipated task’s time or cost using the following formula:

$$\textit{Anticipated} = \frac{\textit{Optimistic} + 4 \times \textit{Likely} + \textit{Pessimistic}}{6}$$

- (qq) **“Tonner”** means a multi-unit tank car tank designed to US Department of Transportation 106A or 110A standards and is used to store pressurized liquid and gaseous chlorine;
- (rr) **“Tonner Room”** means the room where the Tonners are stored within the RPSs, with the two on-line Tonners connected to the chlorine gas delivery system with vacuum regulators and emergency shutoff valves. The on-line Tonners are located on a load scale that monitors the remaining chlorine in the Tonners;
- (ss) **“UPS”** means uninterrupted power supply;
- (tt) **“WBS”** means work breakdown structure or a deliverable oriented hierarchical decomposition of the work packages to be executed by the Project team. The work package expresses the work, duration, and costs for the tasks required to produce the sub-deliverable; and
- (uu) **“W&W”** means the City of Winnipeg Water and Waste Department.

## **D5. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS**

- D5.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation (“CSSR”) to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.
  - D5.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg’s behalf, shall comply with all obligations under the AMA applicable to public sector bodies.
  - D5.1.2 The accessible customer service obligations include, but are not limited to:
    - (a) providing barrier-free access to goods and services;
    - (b) providing reasonable accommodations;
    - (c) reasonably accommodating assistive devices, support persons, and support animals;
    - (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
    - (e) inform the public when accessibility features are not available;
    - (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
    - (g) providing adequate training of staff and documentation of same.

## **D6. RELEVANT DOCUMENTS AND HISTORICAL DRAWINGS**

- D6.1 Relevant documents and Historical Drawings are available by request to the Project Manager after completion of a Non-Disclosure Agreement. These documents and drawings will be released at the sole discretion of the City. A list of the available relevant documents is included in Appendix B – Relevant Documents and a list of the available Historical Drawings is included in Appendix C – Historical Drawings. The Non-Disclosure Agreement can be found in Appendix D – Non-Disclosure Agreement.

## **D7. GENERAL REQUIREMENTS**

### **D7.1 Consultant**

- D7.1.1 The Consultant shall ensure that the Scope of Services is performed under direct supervision of a Professional Engineer.
- (a) All drawings, reports, recommendations, and other documents involving the practice of professional engineering shall bear the stamp or seal and signature of a qualified engineer as required by the Engineering and Geoscientific Professions Act of the Province of Manitoba and By-laws of the Engineers Geoscientists Manitoba.
  - (b) Final design documents irrespective of the level of design shall bear an engineer's seal.
  - (c) Other reports and documents not involving the practice of professional engineering, such as letters of information and minutes of meetings, may be originated and signed by other personnel engaged by the Consultant and accepted by the City.
- D7.1.2 Progress estimates, completion certificates, and other reports related to the technical aspects of this Project shall be endorsed by the Consultant's Representative in a manner acceptable to the City.
- D7.1.3 The Consultant shall, at a minimum, utilize the most current industry standard sustainable practices and conform to the latest codes, standards, regulations, and legislative requirements in effect. The Consultant shall liaise with the Project Manager on the application of codes and standards.
- D7.1.4 The Consultant shall not substitute or replace Key Personnel throughout the duration of the Project without the written approval of the Project Manager. Experience and qualification as specified in B11 shall be submitted for all requested substitute(s) and replacement(s).
- D7.1.5 The Consultant shall coordinate with outside agencies as required to perform the Services. The Consultant shall confirm with the Project Manager the agencies that are being contacted prior to doing so.
- D7.1.6 The following publicly available design guides and standards as indicated in Appendix B – Relevant Documents shall apply to the Services:
- (a) City of Winnipeg Water & Waste Department Electrical Design Guide.
  - (b) City of Winnipeg Water & Waste Department Electrical Identification Standard.
    - (i) This standard is only applicable to new equipment. Existing equipment names shall be maintained as much as is practical to minimize impact to existing systems.
  - (c) City of Winnipeg Water and Waste Department Computer Assisted Drafting (CAD) and Geographic Information System (GIS) Standards.
- D7.1.7 The Consultant shall coordinate access to the W&W facilities with the Project Manager.
- ### **D7.2 Project Deliverables**
- D7.2.1 Project Deliverables include but are not limited to the:
- (a) project delivery plan as detailed in D9.2;
  - (b) progress reports as described in D9.3;
  - (c) meeting minutes as described in D7.17, D9.4;
  - (d) Safe Work Plan as described in D21;
  - (e) DBM as described in D7.18;
  - (f) tender ready drawings as described in D7.3;
  - (g) tender ready specifications as described in D7.4;
  - (h) equipment list as described in D7.5;

- (i) submittal list as described in D7.6;
- (j) design calculations as described in D7.7;
- (k) cost estimate as described in D7.8;
- (l) construction schedule as described in D7.9;
- (m) construction plan as described in D7.10;
- (n) automation deliverables as described in D7.11;
- (o) commissioning deliverables as described in D7.12
- (p) asset management lists as described in D7.13;
- (q) training plan as described in D7.14
- (r) operation and maintenance manuals as described in D7.14;
- (s) photographs as described in D7.16;
- (t) Site inspection reports as described in D14;
- (u) change control management documents (i.e. PCN's, CWO's, FI's, RFI's and associated logs) as described in D13;
- (v) Shop drawing reviews as described in D13.6;
- (w) As-Built Drawings as described in D16.; and
- (x) final construction report as described in D17.3.

D7.2.2 All Project Deliverables are to be delivered with a document lifecycle approach.

D7.2.3 Where possible, include all documents in a searchable PDF format.

D7.2.4 Unless otherwise indicated, the City review period for Project Deliverables or requests for information shall be a minimum of twenty (20) Business Days.

- (a) The City review of separate Project Deliverables shall not have overlapping timeframes.

D7.2.5 All Deliverables shall have incorporated the Consultant's internal quality procedures before being submitted to the City.

- (a) All Deliverables shall be reviewed by representatives of the Consultant who is proficient in technical writing and technical drawings 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 and shall not impact the timing of the Project schedule.

D7.2.6 The Deliverables shall be submitted in a substantially completed draft format for review prior to submittal as a final document.

- (a) Draft versions of written documents shall be submitted in Microsoft Word 2010 (.docx) native format.
- (b) All Deliverables shall be submitted to the Project Manager.
- (c) All City review comments shall be considered and incorporated into the final version, as applicable.

## D7.3 Drawings

D7.3.1 Drawings shall be prepared in accordance with the W&W's CAD-GIS Specifications.

D7.3.2 Drawings shall not be prepared using the City's GeoMedia and Google Earth screen captures and instead shall be prepared from the legal plans, certificates of title, as-built records, and topographic survey.

D7.3.3 Process, utility, and building Drawings shall have the following scales:

- (a) Details: 1:1, 1:5, 1:10, or 1:20;
- (b) Process plans, sections, and elevations: 1:10, 1:20, or 1:50;
- (c) Utility and building plans, sections, and elevations: 1:10, 1:20, 1:50, or 1:100; and
- (d) Panel layouts: recommended 1:4 or 1:10 maximum if required.

D7.3.4 All profile components of Drawings shall be in natural scale.

D7.3.5 Where existing systems are being modified, the existing Drawings shall be modified or superseded rather than creating a new partial drawing only showing the new work.

D7.3.6 All draft and final Drawings for the tender shall be submitted in AutoCAD format version 2012, PDF, and in 11x17 hard copy format, unless otherwise specified.

D7.3.7 P&ID Drawings shall be in accordance with requirements indicated in Appendix E.

D7.3.8 The City shall provide Drawing numbers for all new Drawings that are generated. All references in the final Drawings shall reference the City's Drawing number not the Consultant's Drawing number.

D7.3.9 Provide a cross reference on the Drawings to other associated Drawings, whether new Drawings included with this Work or the available Historical Drawings.

D7.3.10 Draft Drawings to be submitted to the City for review and comment at 30%, 60%, and 90% completion. Comments shall be reviewed and incorporated into the final Drawings, as applicable.

#### D7.4 Technical Specifications

D7.4.1 The City of Winnipeg Standard Construction Specifications shall be used where applicable. The City of Winnipeg Construction Specification is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at [www.winnipeg.ca/matmgt/Spec/Default.stm](http://www.winnipeg.ca/matmgt/Spec/Default.stm).

D7.4.2 The technical specifications for process, instrumentation, controls, and building upgrades shall follow the NMS format.

D7.4.3 The Consultant shall review with the City the special requirements for materials of construction and/or process which shall be incorporated into the technical specifications.

D7.4.4 Draft technical specifications to be submitted to the City for review and comment at 30%, 60%, and 90% completion. Comments shall be reviewed and incorporated into the final technical specifications, as applicable.

- (a) Prior to submitting the draft technical specifications, submit two representative specification sections for City review and comments. All further technical specification sections shall incorporate the City's comments

#### D7.5 Equipment List

D7.5.1 At all draft Drawing and technical specification submittals, submit a draft equipment list. A sample equipment list can be found in Appendix K. The City will provide comments on the draft equipment list. Comments shall be reviewed and incorporated into the final tender submission, as applicable.

D7.5.2 Have a meeting with City staff to determine:

- (a) City staff training requirements for each piece of equipment;
- (b) quantities if the work requires multiples of the same equipment with the same identification;
- (c) spare parts requirements for each piece of equipment;
- (d) submittal requirements (e.g. shop drawings, operations and maintenance information, product datasheets, etc.) for each piece of equipment; and
- (e) lamicoid name and type for each piece of equipment.

## D7.6 Submittal List

D7.6.1 At all draft technical specification submittals, submit a draft submittal list. A sample submittal list can be found in Appendix L. The City will provide comments on the draft submittal list. Comments shall be reviewed and incorporated into the final tender submission, as applicable.

## D7.7 Design Calculations

D7.7.1 Calculations as indicated in Appendix H to be submitted to the City for review and comment. Comments shall be reviewed and incorporated into the final calculations, as applicable.

## D7.8 Cost Estimates

### D7.8.1 AACE Class 1 Cost Estimate

(a) Draft AACE Class 1 Cost Estimate to be submitted to the City for review and comment at 90% completion of technical specifications. Comments shall be reviewed and incorporated into the final AACE Class 1 Cost Estimate, as applicable.

(b) AACE Class 1 Cost Estimate to include at a minimum

- (i) A list of all assumptions and exclusions for the estimate (e.g. currency exchange rates, labour rates; project delivery method, basis for labour hours, etc.);
- (ii) line item take-offs for equipment, materials, and rentals showing the unit price, unit labour hours, and quantities. Material costs and labour hours to be extended out based on indicated quantities;
- (iii) assumed base labour rates;
- (iv) general condition costs including but not limited to bonding, insurance, permits, as-builts, shop drawings, and health and safety;
- (v) mark-ups for general contractor, division trades, and sub-trades; and
- (vi) MRST as applicable.

## D7.9 Construction Schedule

D7.9.1 Prepare an estimated construction schedule for the implementation of the design, taking into consideration whether phased construction requirements will be required to maintain compliance with the City's operation of the system.

D7.9.2 Use the Three-Point Estimate analysis in the construction schedule to indicate the optimistic, likely, and pessimistic time lines for the tasks and show the anticipated task times.

## D7.10 Construction Plan

D7.10.1 Refine the preliminary design construction plan which addresses the operation constraints, Site constraints (e.g. buried Critical Infrastructure, etc.) and details the proposed construction sequence.

D7.10.2 The plan shall be suitable for both City and contractor use.

D7.10.3 The construction plan shall consist of the following sections at a minimum:

- (a) Introduction;
- (b) construction Sequence and Schedule;
- (c) Controls to Maintain System Operations;
- (d) Temporary Construction Requirements; and
- (e) Risk Analysis.

## D7.11 Automation Deliverables

- D7.11.1 Prepare and execute Automation Deliverables indicated in Appendix F – Automation Engineering including but not limited to:
- (a) functional requirement specification;
  - (b) process control narratives;
  - (c) PLC programming and logic;
  - (d) drawings;
  - (e) technical specifications;
  - (f) I/O, instrumentation, and loop number lists;
  - (g) automation cable and lamaroid schedules;
  - (h) interface maps;
  - (i) test forms; and
  - (j) commissioning forms.
- D7.11.2 Requirements to be submitted to the City for review and comment. Comments shall be reviewed and incorporated into the final documents, as applicable.
- D7.12 Project Commissioning Plan
- D7.12.1 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.
- (a) Identify all work items requiring commissioning and include a control narrative.
  - (b) Determine the appropriate method to commission each process, system, and piece of equipment using the factors outlined in Appendix I Commissioning Approach and in Appendix J Commissioning Strategy.
  - (c) Clearly indicate the tasks required and the party responsible for each task.
  - (d) Include all disciplines and coordination between the disciplines.
  - (e) Include all pre-commissioning requirements.
  - (f) Include all phasing requirements.
  - (g) Include commissioning phasing plans to ensure continuous operation of Critical Infrastructure.
  - (h) Include verifications forms.
- D7.12.2 Ensure the integration of contractor commissioning requirements into the tender package.
- D7.12.3 The project commissioning plan may be produced in NMS style format.
- D7.13 Asset Management Lists
- D7.13.1 Develop and provide the following asset management lists:
- (a) decommissioned assets; and
  - (b) new assets.
- D7.13.2 The information for new assets to include but not be limited to:
- (a) W&W identification;
  - (b) manufacturer;
  - (c) model number;
  - (d) serial number; and
  - (e) Authority Having Jurisdiction (AHJ) registration number.

D7.13.3 The lists shall include any equipment, device, and/or instrumentation that requires regular maintenance, servicing, or calibration. Static devices typically do not need to be included in the asset list.

#### D7.14 Training Plan

D7.14.1 Using the equipment list as described in D7.5 as a guide, establish a training plan to be included in the Tender Documents. Hold a meeting with City staff to determine:

- (a) the equipment and system requiring training;
- (b) the number of personnel requiring training; and
- (c) the number and minimum length of training sessions.

#### D7.15 Operation and Maintenance Manuals Requirements

D7.15.1 The Operations and Maintenance Manuals (to be prepared by the Contractor) shall consist of the following:

- (a) basis of design (prepared by the Consultant during the design phase);
- (b) performance requirements (prepared by the Consultant during the design phase);
- (c) as-built single line diagrams and P&IDs for systems;
- (d) as-built instrumentation drawings, datasheets, and tables for systems;
- (e) as-built control narratives for systems;
- (f) as-built system setpoints;
- (g) specific system operation calculations, as applicable;
- (h) equipment schedules;
- (i) operation and maintenance instructions for each system;
- (j) test reports; and
- (k) final approved shop drawings.

#### D7.16 Photographs

D7.16.1 All photographs submitted to the City as part of the Project shall include captions with the following information:

- (a) date photograph was taken;
- (b) location and orientation where the photograph was taken; and
- (c) a brief description of what is depicted in the photograph.

#### D7.17 Meetings

D7.17.1 Schedule and chair all Project meetings.

D7.17.2 Provide an agenda within two (2) Business Days prior to the meeting date.

- (a) Provide meeting minutes using the City Project Management meeting template within five (5) Business Days of the meeting date.
- (b) Meetings shall be held at the Winnipeg Drinking Water Treatment Plant, 1199 Pacific Avenue (Winnipeg, Manitoba), the Consultant's Winnipeg office, virtually, or any alternative site agreed upon by the Project Manager and the Consultant.
- (c) The Consultant's instrumentation and controls/PLC integration leader or designated representative shall attend monthly coordination meetings with the City's instrumentation and controls personal during detailed design and the City's instrumentation and controls personal and the control subcontractor during construction and commissioning. The City Project Manager or designated representative to chair and provide minutes for the meetings.

## D7.18 Design Basis Memorandum

- D7.18.1 The Design Basis Memorandum (DBM) shall be one of the first documents prepared by the Consultant during the design phase, to establish the basic design parameters for the project going forward and shall include the following:
- (a) a description of the Project.
  - (b) Project objectives.
  - (c) design criteria for each discipline including at a minimum the following:
  - (d) design codes;
  - (e) design references, standards, and guidelines;
  - (f) design parameters;
  - (g) design strategies;
  - (h) material and equipment information;
  - (i) design and construction features; and
  - (j) unresolved issues.
- D7.18.2 The DBM shall to be a living document with changes occurring throughout the work as new information becomes available and the design is refined.
- (a) The DBM to updated at the completion of the project with all relevant updates.
- D7.18.3 An example of a W&W DBM is included in Appendix M – Design Basis Memorandum Sample

## D8. SCOPE OF SERVICES

- D8.1 The Services required under this Contract shall consist of in accordance with the following:
- (a) Project Management as outlined in D9;
  - (b) Historical Information Review and Stakeholder Engagement as outlined in D10;
  - (c) Geotechnical Engineering Services as outlined in D11;
  - (d) Detailed Design and Tender as outlined as outlined in D12;
  - (e) Contract Administration - Non-Resident Services as outlined in D13;
  - (f) Contract Administration - Resident Services as outlined in D14;
  - (g) Commissioning Services as outlined in D15;
  - (h) As-Built Drawings as outlined in D16;
  - (i) Project Closeout as outlined in D17; and
  - (j) Additional Work Allowance as outlined in D18.
- D8.1.1 As the Project encompasses multiple Sites, parallel teams may be required to deliver the Scope of the Services identified in D7.
- D8.2 Unless otherwise stated, Appendix A – Definition of Professional Consultant Services shall be applicable to the provision of Professional Engineering Services for this Project. These services are specific to Detailed Design and Contract Administration Services.
- D8.3 The Services required shall be in accordance with the City's Project Management Manual <http://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#2> and templates <http://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#4> . 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.

## **D9. PROJECT MANAGEMENT**

D9.1 Plan, organize, secure, and manage resources to complete the phases outlined in D10 to D17.

D9.2 Prepare a project delivery plan using the City's short form Project Management Plan as a guide or the Consultant's own document. The project management plan includes:

(a) Project Scope Statement

- (i) Describing the services, cost and time elements of the project, out of scope work, project constraints and restrictions, major assumptions, and the City's acceptance criteria for a successfully delivered project.

(b) Project Work Plan

- (i) Outline the key deliverables including review submissions, the key activities for the deliverables, the review submission dates and the completion date for the deliverables.

(c) Project Schedule

- (i) Include the information required in B12.4.
- (ii) The approved schedule will be used as the Project baseline throughout the Project.
- (iii) The Project schedule is to be updated and included with the Consultant Project Reports indicated in D9.3. The updated Project schedule to include the percent of work complete for each task.

(d) Risk Management Plan

- (i) Prepare a risk management plan identifying risk event causes, risk event outcomes, degree of certainty, effects on Project objectives, severity of risk, response/action(s) to be undertaken, contingency plan, and associated costs to manage risks.
- (ii) Using the City's spreadsheet template located on the City's Asset Management Program website located at: <https://www.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#5>. A draft risk management plan has been prepared by the City and will be provided to the Consultant.
- (iii) The risk management plan is to be updated and included with the Consultant Project Reports indicated in D9.3.

(e) Change Management

- (i) Identify the schedule, quality, and budget impacts of any proposed changes.
- (ii) Maintain and regularly update PCN, CSS, RFI and decision logs.

(f) Quality Assurance and Control

- (i) Establish appropriate levels of review and approvals for all Project Deliverables.
- (ii) Identify individuals responsible for the quality review and any independent technical reviews

(g) Human Resources

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

(h) Communication

- (i) Illustrate the various stakeholders, what information needs to be communicated, the timing and delivery method of the communication, who is responsible for the communication, and the feedback mechanism.

(i) Project Closeout Plan

- (i) Establish how to close phases of the Project and Project overall.

D9.3 Issue Consultant Progress Reports every sixty (60) Calendar Days after the pre-commencement meeting up to the Total Performance of the construction tender.

- D9.3.1 The Consultant Progress Reports template is available on the City of Winnipeg Documents for City Asset Management Program website (<https://www.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm>).
- D9.3.2 If critical stages outlined in D24 are not achieved, submit Consultant Progress Reports every thirty (30) Calendar Days until the Deliverables indicated in D11 are approved by the City. No additional fees will be contemplated for additional Consultant Progress Reports.
- D9.4 Coordinate regular monthly Project meetings and provide minutes. The meetings shall be used to update the Project Manager on the status of the Project, review the Deliverables, and to discuss other project management issues.
- D9.4.1 The meeting minutes template is available on the City of Winnipeg Documents for City Asset Management Program website (<https://www.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm>).
- D9.4.2 Meetings shall be held monthly during design stages up to the final tender posting.
- D9.4.3 Schedule all of the regular monthly Project meetings within five (5) days of the pre-commencement meeting.
- D9.4.4 If critical stages outlined in D24 are not achieved during the preliminary design and design stages, regular Project meeting frequency shall increase to every two weeks until the Deliverables indicated in D11 are approved by the City. No additional fees will be contemplated for additional Project meetings.
- D9.4.5 The frequency of meetings may vary based upon the level of project activity.
- D9.5 In addition to the regular Project meetings detailed in D9.4, schedule and chair the following meetings:
- (a) pre-commencement meeting – to be scheduled immediately upon award of the Project;
  - (b) equipment list review meeting (as described in D7.5);
  - (c) training requirement meeting (as described in D7.14);
  - (d) stakeholder workshop (as described in D10.3);
  - (e) meetings to review the 30%, 60%, and 90% draft tender documents, as described in D12.2.1;
  - (f) meeting to review the appraisal of the construction Bid Submission as described in D12.3(e); and
  - (g) Project closeout meeting as described in D17.6.
- D9.5.1 Meetings can be combined if appropriate.
- D9.6 Provide ten (10) Business Days notice prior to any Site visit or work that will require assistance from City personnel.
- D9.7 Carry out other project management activities as required.

## **D10. HISTORICAL INFORMATION REVIEW AND STAKEHOLDER ENGAGEMENT**

- D10.1 Review all pertinent background information including, but not limited to:
- (a) Relevant documents;
  - (b) Historical Drawings;
  - (c) existing equipment shop drawings;
  - (d) existing operation and maintenance manuals; and
  - (e) operational data.

- D10.2 Conduct detailed Site investigations of the RPSs to verify Historical Drawings and documents reviewed in D10.1 and to familiarize yourselves with the various Sites.
- D10.2.1 Note any discrepancies from the Historical Drawings and documents reviewed in D10.1 to the Project Manager.
- D10.2.2 Ensure such discrepancies are resolved for the final design Deliverables.
- D10.3 Conduct a stakeholder workshop with City personnel.
- D10.3.1 The purpose of the stakeholder workshop is to develop and review the Project basis, objectives, and criteria which shall be incorporated into the DBM, as described in D7.18. Topics to be discussed include but are not limited to:
- (a) deficiencies and issues in the current systems;
  - (b) equipment selection for the new process systems;
  - (c) develop and review the DBM;
  - (d) operation and maintenance requirements of the new process systems; and
  - (e) constraints related to maintaining operation of the Critical Infrastructure during the construction period.
- D10.4 A minimum of two stakeholder workshop to be conducted with a minimum duration of two hours each.
- D10.5 Provide minutes of the stakeholder workshop and a draft DBM within fifteen (15) Business Days of completion of the workshop.
- D10.6 All City review comments of the draft DBM shall be considered and incorporated, as applicable.

## **D11. GEOTECHNICAL ENGINEERING SERVICES**

- D11.1 The Consultant shall provide the necessary geotechnical engineering services to determine the appropriate foundation systems for the chlorine scrubbers at the MacLean and McPhillips RPS, parking lot upgrades for McPhillips RPS, and vestibule expansion for Hurst RPS, as required.
- D11.1.1 The geotechnical engineering services shall consist of the following activities:
- (a) reconnaissance of the Sites with the City and the appropriate agents for utility locates prior to any sub-surface investigation.
  - (b) performance of a sub-surface investigations (including mobilization, site clean-up, and demobilization) in the vicinity of proposed construction locations.
    - (i) Clear above ground site obstacles (e.g. snow, minor vegetation, etc.) as required.
    - (ii) Soft dig any adjacent sub-surface utilities to confirm locations as required.
    - (iii) Collect soil samples at a maximum of 1.5 metre intervals or at changes in soil stratigraphy. Record other pertinent information such as sloughing and seepage. The number and type of tests conducted shall depend on the nature of materials encountered.
    - (iv) Backfill and restore boreholes, any excess soil cuttings to be disposed of off-site; and
  - (c) prepare a report(s) to summarize the Site conditions observed, the soil units encountered, and recommend suitable foundations in accordance with the National Building Code of Canada and Canadian Foundation Engineering Manual. The recommendation of any foundations shall factor in risks to nearby Critical Infrastructure (e.g. pumping station piping, Aqueduct, etc.) during construction.
- D11.1.2 The north and west side of the McPhillips RPS Site has abandoned below grade structures that may be encountered.

- D11.1.3 The equipment pad for the Hurst RPS Site are currently underway as part of Work by others.
- D11.1.4 Any geotechnical investigations shall be conducted to minimize the impact to critical buried infrastructure (i.e. load limits on equipment may be imposed depending on the location of the investigation).
- D11.2 Reference geotechnical reports are included in Appendix B – Relevant Documents for information purposes only.

## **D12. DETAILED DESIGN AND TENDER**

- D12.1 The Consultant shall provide all necessary professional services as required to prepare the detailed design and tender submission for the chlorine system upgrades at the MacLean, Hurst, and McPhillips RPSs as described in D11.2.
- D12.1.1 The detailed design shall address technical and operational issues, reliability/redundancy and safety concerns, and all current applicable code requirements.
- D12.1.2 The work associated with the creation of SCADA interfaces will be the responsibility of the City.
- D12.1.3 Identify all permits necessary for construction and submit the applicable design summaries to the AHJ.
- D12.2 Prepare a detailed design and a tender submission for the Chlorine System Upgrades at the MacLean, Hurst and McPhillips RPS. The scope of work for design shall include but not be limited to:
- (a) new Emergency Ventilation System consisting of a dry type chlorine gas scrubber capable of absorbing 950 kg of chlorine gas, the associated ductwork, electrical service, and automation;
  - (b) new Occupied Space Ventilation System, the associated ductwork, electrical service, and automation for the chlorine spaces to provide 6 air changes per hour (ACH);
  - (c) new make-up air system for the Emergency Ventilation System could be supplemented with ventilation air from the Occupied Space Ventilation System if a negative pressure can be maintained in the space relative to adjacent rooms and outdoors or by recirculating the treated exhaust air to the space;
  - (d) reconfiguration of the entrances/exits from the Tonner Room to the Chlorinator Room;
  - (e) reconfiguration of the entrances/exits or new entrances/exits for the Tonner Room with vestibules;
  - (f) sealing of floor drains in the Tonner Room at McPhillips RPS, removal of the floor drains with the associated sanitary drain piping in the Tonner Room at MacLean RPS, and for Hurst RPS the removal of the floor drains with the associated sanitary piping system in the Tonner Room and the reconfiguration of the sanitary piping in the chlorinator room to connect into the facility's sanitary drainage and vent system;
  - (g) sealing of all openings between the Tonner Room, the Chlorinator Room, and all adjacent spaces;
  - (h) new emergency shower/eyewash with flow alarms and water supply sized to provide tempered water in accordance with the Canadian Centre for Occupational Health and Safety recommendations for corrosives at a minimum temperature of 24 degrees Celsius;
  - (i) new roller trunnions in the storage area for the stored tonners;
  - (j) modifications to the electrical distribution and MCC based on the changes necessary for the chlorine upgrades;
    - (i) it is anticipated that new electrical feeds to the equipment and breakers in the MCC's and electrical panels will be required for the RPS, and

- (ii) It is anticipated that new MCC sections and electrical panels may be required for Hurst and MacLean RPS.

*Note: the layout of the MCC sections should consider any future upgrades to standby power at the three RPS.*

- (k) update the existing arc flash studies for the impacted systems and ensure the arc flash energies are consistent with W&W recommended values;

*Note: the models from the current studies will be made available and were generated using SKM software.*

- (l) perform a short circuit study with sufficient accuracy to estimate short circuit currents both for equipment rating purposes and for the arc flash energy calculations;
- (m) upgrades to the electrical systems in the Tonner Rooms and Chlorinator Rooms to NEMA 4X;
- (n) upgrades to the existing station PLC (e.g. I/O cards, terminal blocks, etc.) and subsequent the automation programming to accommodate the installation of new systems;
- (o) installation of a new exterior equipment pads or foundations and subsequent regrading of the site:
  - (i) Buried critical infrastructure and other utilities on the Sites must be considered during design;
- (p) new audio and visual chlorine gas alarm annunciation interlocked with the existing space monitors located at chlorine space exterior doors for McPhillips and MacLean RPS;
- (q) new parking lot at McPhillips RPS to accommodate the new equipment for the chlorine room;
- (r) new ventilation system for the crawlspace below the Hurst RPS chlorine storage/scale room;
- (s) new addressable fire alarm panel, new horns/strobes throughout the facility, new detectors throughout the facility as required, reuse detectors, pull stations, device wiring where possible for the Hurst RPS. Tie-in the existing carbon monoxide monitoring system to the new fire alarm panel. The new fire alarm system is to tie back into the existing PLC infrastructure and annunciation system. Any SCADA modifications required shall be completed by the City of Winnipeg;
- (t) preparing asbestos abatement scope of work for the RPS in the areas affected by the upgrades;
- (u) building structure modifications, as required; and
- (v) automation services required for the upgrades as indicated in Appendix F.

D12.2.1 Conduct meetings with the City to discuss the 30%, 60% and 90% project deliverables approximately twenty (20) Business Days after the submission to the City. Drawings, specifications, the City bid submission forms, the City Bid Procedures, the City Supplemental Conditions, Bid appendices, tender specific Automation Deliverables, Equipment Lists, Construction Plan, and Project Commissioning Plan to be included in the 30%, 60% and 90% submissions. Remaining deliverables to be included in the 90% submission. Topics to be discussed include but are not limited to:

- (a) addressing City review comments;
- (b) anticipated construction costs; and
- (c) anticipated constructability of the design.

D12.2.2 The detailed design and tender submissions shall include:

- (a) the City bid submission forms, Bid Procedures, General Conditions, Supplemental Conditions which are available at <https://www.winnipeg.ca/matmgt/templates/>;
- (b) Drawings as described in D7.3;

- (c) Technical Specifications as described in D7.4
- (d) Equipment Lists as described in D7.5;
- (e) Submission Lists as described in D7.6;
- (f) Design Calculations as described in D7.7;
- (g) identification of construction lay-down area(s);
- (h) Lay down areas to be restored back to original condition;
- (i) AACE Class 1 Cost Estimate as described in D7.8;
- (j) Construction Schedule as described in D7.9;
- (k) Construction Plan as described in D7.10;
- (l) Automation Deliverables as described in D7.11;
- (m) Project Commissioning Plan as described in D7.12;
- (n) Training Plan as described in D7.14:
  - (i) Appendix G includes the sample Specification for the Tender which outlines the training team requirements; and
- (o) Operation and Maintenance Manuals Requirements as described in D7.15.

D12.3 Arrange for advertisement of the tender packages with the City's Materials Management Division.

- (a) Provide appropriate response to bidders and advice to the City during the tender posting period.
- (b) Issue addenda to the tender, as required.
- (c) Arrange for and attend bidder's site visit(s).
- (d) Evaluate the bids received and provide an award of contract recommendation letter.
- (e) Meet with the City to discuss the award of contract recommendation.
- (f) If the bids deviate more than 15% from the Class 1 Cost Estimate, provide justification for the difference in pricing in the award recommendation letter.

### **D13. CONTRACT ADMINISTRATION – NON RESIDENT SERVICES**

D13.1 Administer the construction contract(s).

D13.2 Use the appropriate City 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>

D13.2.1 Relevant City templates include but are not limited to:

- (a) pre-construction meeting agenda and meeting minutes;
- (b) proposed change notice (PCN);
- (c) PCN log;
- (d) request for information (RFI);
- (e) RFI log;
- (f) field instruction;
- (g) field instruction log;
- (h) contract change log;
- (i) change of work order (CWO);
- (j) decision log;
- (k) daily construction report;

- (l) inspection report;
  - (m) meeting minutes;
  - (n) site meeting minutes;
  - (o) Certificate of Substantial Performance;
  - (p) Certificate of Total Performance; and
  - (q) Certificate of Acceptance.
- D13.3 Conduct a pre-construction meeting with the contractor and provide minutes.
- D13.4 Prepare and issue Construction Documents to the contractor after the award of the tenders.
- D13.5 Coordinate with the contractor for completion of permits in a timely manner.
- D13.5.1 Prepare the building and Site design summaries or similar documents authority requested documents for the permit applications.
- D13.6 Review and accept contractor submittals.
- D13.6.1 The review and acceptance of contractor submittals (i.e. shop drawings, safe work plan, etc.) shall be conducted by a Professional Engineer(s) of the appropriate discipline and any other associated or impacted disciplines.
- D13.6.2 Provide one comprehensive review of each submittal that the contractor has stamped and submitted. Subsequent reviews of submittals shall be at the cost to the contractor.
- D13.7 Review and report to the City on laboratory, shop, and other test results conducted upon materials and/or equipment.
- D13.8 Review any alternate materials or methods that may be required to progress the work. No alternates shall be approved without written authorization from the City.
- D13.9 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.
- D13.10 Coordinate and prepare PCN's regarding the contractor scope of work as required. This may include the preparation of specifications and Drawings for the PCN.
- D13.11 Review extra work claims submitted by the contractor. Prepare and process CWO's accordingly in a timely manner.
- D13.12 Review and respond to contractor RFIs in a timely manner.
- D13.13 Prepare contractor site instructions/clarifications/directives as required.
- D13.14 Interpret technical aspects of the Contract as requested by the City.
- D13.15 Coordinate regular construction review meetings. The meetings shall include representatives of the City and the contractor. The meetings shall be used to update the City on the status of construction and to discuss any other construction related issues.
- D13.15.1 The typical frequency of meetings shall be biweekly during the course of construction, although meeting frequency may vary based upon the level of construction activity.
- D13.15.2 Prepare and distribute 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
- D13.16 Prepare, certify, and submit progress estimates to the City for payment to the contractor for construction performed in accordance with the Drawings and specifications.

- D13.17 Coordinate and manage training sessions for City personnel for the operation and maintenance of new systems and equipment. This includes but is not limited to planning and scheduling of training sessions, review of training procedures and training documents prepared by the contractor to confirm the training sessions follow best practices and sessions are applicable for operations staff to earn continuing education credits.
- D13.18 Administer Substantial Performance with regards to the construction Contract.
- D13.18.1 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.
- D13.18.2 Make a recommendation to the Project Manager when the contractor has achieved Substantial Performance.
- D13.18.3 Act as Payment Certifier and administer all contracts as required under the Builder's Liens Act of Manitoba.
- D13.18.4 Upon approval, prepare and issue a Certificate of Substantial Performance.
- D13.19 Administer Total Performance with regards to the construction Contract.
- (a) 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.
- (b) Make a recommendation to the Project Manager when the contractor has achieved Total Performance.
- (c) Upon approval, prepare and issue the Certificate of Total Performance.

#### **D14. CONTRACT ADMINISTRATION – RESIDENT SERVICES**

- D14.1 Provide inspection services when the contractor is on-site to ensure that the construction conforms to the design Drawings and specifications.
- D14.2 Visit and inspect work at fabrication shops, staging areas, and manufacturing facilities, as required.
- D14.3 Provide weekly construction reports during the course of construction. The reports shall include, but not be limited to:
- (a) working days and days lost due to unforeseen conditions over the course of construction; and
- (b) written and photographic records of the construction, including construction progress.
- D14.4 Review the contractor's redline drawings during the course of construction to ensure modification and changes implemented are reflected accurately.
- D14.5 Keep a continuous record of Project activities including but not limited to the weekly construction 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 arising from the Project.
- D14.6 Witness quality control procedures implemented by the contractor.
- D14.7 Arrange for and carry out testing of materials utilized by the contractor.
- (a) 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.
- (b) The Consultant shall ensure that selected third-party services are provided at competitive market rates.

(c) Costs shall be substantiated by the provision of suitable documentation.

D14.8 Prepare, update, maintain, and coordinate a deficiency list of all issues identified during inspections. Coordinate remediation of the deficiency list with the contractor.

## **D15. COMMISSIONING SERVICES**

D15.1 The Consultant is responsible for the planning and leadership of the overall commissioning activities to ensure that all commissioning activities are carried out and all equipment is fully operational upon completion of the Project. While the contractor and the City may perform specific commissioning tasks, this does not reduce or eliminate the Consultant's responsibilities.

D15.2 Schedule and coordinate all commissioning work in coordination with the contractor's schedule.

D15.3 Coordinate closely with the Project Manager and City operations personnel throughout the course of the commissioning process. Ensure that City operations personnel are always aware of the current commissioning status and any upcoming operational requirements or impacts.

D15.4 Prepare shutdown protocols for any activities requiring an operational shutdown of the RPSs.

D15.4.1 Shutdown protocols shall be submitted for City review. Allow a minimum of twenty (20) Business Days in advance of any proposed operational shutdowns affecting the RPSs.

D15.4.2 Shutdown protocols which shall include:

- (a) start time and estimated completion time,
- (b) City resource requirements,
- (c) a pre-shutdown checklist,
- (d) activities necessary to remove from service any station components required to be de-energized in order to safely complete the work,
- (e) identification of known risks to completing the work within the scheduled shutdown period and contingency plans to mitigate those risks,
- (f) activities required to restore the system to service, and
- (g) emergency contact information for key personnel involved in the shutdown.

D15.5 Document equipment deliveries and installations.

D15.6 Monitor commissioning activities, witness and certify the accuracy of the reported results.

D15.7 Coordinate, witness, and document equipment performance tests and process system performance tests.

- (a) Ensure that the contractor completes the specified tests of the equipment and systems.
- (b) Coordinate testing with contractor and ensure that the results are consistent with the system requirements.
- (c) Where performance test results indicate an issue, coordinate with the contractor to resolve the issue(s).
- (d) Coordinate and manage start-up and commissioning of new equipment and systems. This includes but is not limited to modifying the commissioning plan as required, planning and scheduling of commissioning work, co-ordination of City personnel, full time presence during commissioning work, review of contractor submissions, and record keeping.

D15.8 Sign off on all commissioning records.

D15.9 Compile and hand over to the City all commissioning documentation, including but not limited to:

- (a) commissioning plans and procedures;

- (b) evidence of commissioning verification;
- (c) deficiency reports and corrective actions taken; and
- (d) any other commissioning documents.

## **D16. AS-BUILT DRAWINGS**

- D16.1 Prepare and submit draft As-Built Drawings within 45 Calendar Days of Total Performance of the construction contract.
- D16.1.1 Submit electronic PDF copies of the draft As-Built Drawings for City review.
- D16.1.2 All City review comments shall be considered and incorporated into the final version, as applicable.
- D16.2 Upon receipt of City's acceptance of the As-Built Drawings, submit one (1) set of size A1 Mylar and one (1) electronic copy of PDF and AutoCAD files of the final As-Built Drawings.
- D16.2.1 The AutoCAD files shall be in the City's current application version.
- D16.2.2 Point cloud or other three-dimensional image files used for the creation of the documents shall be submitted to the City with the final As-Built Drawings.
- D16.3 As-Built Drawings shall reflect Site verified as-constructed conditions, including contractor markups, contract change orders, RFI's, and markups from resident inspection of the work. Reliance solely on contractor markups without Site verification of as-constructed conditions is not satisfactory.
- D16.3.1 References on the Drawings relating to the status of an object such as new or existing shall be changed to reflect the final construction state.
- D16.3.2 Existing Historical Drawings that are either superseded, obsolete, or require revisions shall be identified to the City.
- D16.3.3 All cross-reference Drawing numbers (e.g. sections, elevations, detail call-outs, etc.) on the As-Built Drawings shall reference the City drawing numbers and not the Consultant drawings numbers.
- D16.4 As-Built Drawings shall be authenticated by the engineer-of-record in accordance with the Engineers and Geoscientists of Manitoba document entitled "Authentication of Hardcopy and Electronic Professional Documents."
- D16.5 As-Built Drawings shall adhere to the General Requirements for Drawings as described in D7.3.

## **D17. PROJECT CLOSEOUT**

- D17.1 Confirm and ensure complete turnover of project Contract Administration documentation (shop drawings, As-Built Drawings, operations and maintenance manuals, spare parts, photographs, etc.) to the City by the contractor and verify that the documents are in conformance with the construction contract.
- (a) Review the operation and maintenance manuals to ensure they conform to the specification requirements.
- D17.2 The City will require the Consultant and Subconsultants to provide, within sixty (60) Business Days of the completion of Total Performance electronic copies of all design documents including but not limited to background notes, calculations, working notes, research, field logs, working copy spreadsheets, model inputs, survey notes, etc. used in generating deliverables indicated in D11 and D12 and pertinent to the Project, so that the City has a 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.

D17.3 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; and
  - (iii) final or projected final contract cost; and
- (b) appendices, including:
  - (i) photographs – typical pre-construction, during construction, and post-construction photographs;
  - (ii) cost summary;
  - (iii) tabulation of tenders;
  - (iv) change orders;
  - (v) summary of progress payments;
  - (vi) final construction 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 and responses;
  - (xiii) material test reports;
  - (xiv) warranty information;
  - (xv) validation documentation;
  - (xvi) commissioning documentation;
  - (xvii) certificates of Substantial Performance and Total Performance; and
  - (xviii) Asset Management Lists described in D7.13.

D17.3.1 Submit two (2) paper copies and one (1) electronic PDF copy of the final construction report.

D17.4 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 operations and maintenance manuals and resolve deficiencies;
- (g) respond to requests of the City related to the Project;
- (h) coordinate and lead a comprehensive, detailed inspection prior to the expiration of the warranty period for construction, including the contractor and the City. Document and report on all issues identified and coordinate completion of the issues; and
- (i) prepare and issue the certificate of acceptance.

D17.5 Provide and affix new arc flash labels for impacted electrical components new and existing.

D17.6 Attend the Project closeout meeting with the City to:

- (a) mark the completion of the Project;
- (b) review Project performance;
- (c) identify the lessons learned; and
- (d) confirm that essential contractual and other project closure activities are completed.

## **D18. ADDITIONAL WORK ALLOWANCE**

D18.1 The Additional Work Allowance of fifty thousand (\$50,000) dollars is to be used for changes in engineering services that arise due to unforeseen conditions with the Sites, if the existing documentation, and/or the Contract is at variance with any laws, ordinances, rules, regulations or codes of authorities having jurisdiction, or if changes are made to any laws, ordinances, rules, regulations and codes subsequent to the Submission Deadline which require modifications to the Contract. When these circumstances occur, the Consultant shall promptly provide notice thereof to the Project Manager, including:

- (a) the description of the unforeseen condition;
- (b) a detailed description of the proposed change in Services; and
- (c) the Consultant's proposed method(s) to determine the adjustment, if any, to the Contract.

D18.2 Expenditures under the Additional Work Allowance shall be authorized by the Project Manager.

D18.3 Where the actual cost of the Additional Work Allowance exceeds the amount of the allowance, the Consultant shall be compensated for the excess incurred and substantiated plus the amounts outlined in C8.4. Where the actual cost of the Additional Work Allowance is less than the amount of the allowance, the City shall be credited for the unexpended portion of the allowance.

## **D19. SITE SECURITY**

D19.1 Each individual proposed to perform Work under this Contract and within the RPSs shall be required to obtain security clearances as described in PART E - Security Clearances.

D19.2 Additional protocols for accessing the Site will be provided at the pre-commencement meeting.

## **SUBMISSIONS**

### **D20. AUTHORITY TO CARRY ON BUSINESS**

D20.1 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.

### **D21. SAFE WORK PLAN**

D21.1 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.

D21.2 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>

## **D22. INSURANCE**

- D22.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D22.2 As a minimum, the Consultant shall, without limiting its obligations or liabilities under any other contract with the City, procure and maintain, at its own expense and cost, the following insurance policies:
- (a) Comprehensive or Commercial General Liability Insurance including:
    - (i) an inclusive limit of not less than \$2,000,000 for each occurrence or accident with a minimum \$2,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
    - (ii) all sums which the Consultant shall become legally obligated to pay for damages because of bodily injury (including death at any time resulting therefrom) sustained by any person or persons or because of damage to or destruction of property caused by an occurrence or accident arising out of or related to the Services or any operations carried on in connection with this Contract;
    - (iii) coverage for Products/Completed Operations, Blanket Contractual, Consultant's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, and Non-Owned Automobile Liability;
    - (iv) a Cross Liability clause and/or Severability of Interest clause providing that the inclusion of more than one Insured shall not in any way affect the rights of any other Insured hereunder in respect to any claim, demand, suit or judgment made against any other Insured.
  - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Consultant directly or indirectly in the performance of the Service. The limit of liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
  - (c) Professional errors and omissions liability insurance including:
    - (i) an amount not less than \$5,000,000 per claim and \$5,000,000 in the aggregate.
- D22.2.1 The Consultant's professional errors and omissions liability insurance shall remain in force for the duration of the Project and for twelve (12) months after Total Performance.
- D22.3 The policies required in D22.2(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.
- D22.4 The Consultant shall require any Contractors and 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 D22.2(a) and D22.2(b).
- D22.5 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 D22.2(a) and D22.2(c).
- D22.6 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 D22.9.
- D22.7 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.

- D22.8 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.
- D22.9 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**

### **D23. COMMENCEMENT**

- D23.1 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.
- D23.2 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 D20;
    - (ii) the Safe Work Plan specified in D21; and
    - (iii) evidence of the insurance specified in D22.
  - (b) the Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting;
  - (c) The direct deposit application specified in D27.1
- D23.3 The City intends to award this Contract by December 22, 2022.

### **D24. CRITICAL STAGES**

- D24.1 The Consultant shall achieve critical stages of the Services for this Contract in accordance with the following requirements:
- (a) thirty percent (30%) detailed design review by July 12, 2023;
  - (b) sixty percent (60%) detailed design review by October 12, 2023;
  - (c) ninety percent (90%) detailed design submission by January 8, 2024; and
  - (d) tender posting of the RPS Chlorine Upgrades by February 22, 2024.

### **D25. COVID-19 SCHEDULE DELAYS**

- D25.1 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, directives from health authorities and various levels of government and in close consultation with the Project Manager.
- D25.2 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.
- D25.3 A minimum of seven (7) Calendar Days prior to the commencement of Services, the Consultant shall declare whether 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, availability of material or work by others.
- D25.4 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 D25.3. Failure to provide this notice will result in no additional time delays being considered by the City.

- D25.5 The Services schedule, including the durations identified in the Contract, will be adjusted to reflect delays accepted by the Project Manager.
- D25.6 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.

## MEASUREMENT AND PAYMENT

### D26. INVOICES

- D26.1 Further to C11, the Consultant shall submit to:
- The City of Winnipeg  
Corporate Finance - Accounts Payable  
4th Floor, Administration Building, 510 Main Street  
Winnipeg MB R3B 1B9
- Facsimile No.: 204-949-0864  
Send Invoices to [CityWpgAP-INVOICES@winnipeg.ca](mailto:CityWpgAP-INVOICES@winnipeg.ca)  
Send Invoice Inquiries to [CityWpgAP-INQUIRIES@winnipeg.ca](mailto:CityWpgAP-INQUIRIES@winnipeg.ca)
- D26.2 Invoices must clearly indicate, as a minimum:
- the City's purchase order number;
  - date of delivery;
  - delivery address;
  - type and quantity of work performed;
  - the amount payable with GST and MRST shown as separate amounts; and
  - the Consultant's GST registration number.
- D26.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

### D27. PAYMENT

- D27.1 Further to C11.14, the City shall make payments to the Consultant by direct deposit to the Consultant's banking institution, and by no other means. Payments will not be made until the Consultant has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at [https://winnipeg.ca/finance/files/Direct\\_Deposit\\_Form.pdf](https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf).

## THIRD PARTY AGREEMENTS

### D28. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D28.1 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.
- D28.2 Further to D28.1, in the event that the obligations in D28 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 C8.4. In all other respects Funding Costs will be processed in accordance with Changes in Services under C8.
- D28.3 For the purposes of D28:
- "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.

#### D28.4 Modified Insurance Requirements

- D28.4.1 If not already required under the insurance requirements identified in D22, 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.
- D28.4.2 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.
- D28.4.3 Further to D22.6 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.
- D28.4.4 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

#### D28.5 Indemnification By Consultant

- D28.5.1 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.

#### D28.6 Records Retention and Audits

- D28.6.1 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.
- D28.6.2 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 D28.6.1 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.

#### D28.7 Other Obligations

- D28.7.1 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.
- D28.7.2 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.
- D28.7.3 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.
- D28.8 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.

## PART E - SECURITY CLEARANCE

### E1. SECURITY CLEARANCE

- E1.1 Each individual proposed to perform Services under this Contract and within the Winnipeg Drinking Water Treatment Plant shall be required to obtain a Police Information Check and a Global Sanctions & PEP. The Police Information Check may be obtained from one of the following:
- (a) police service having jurisdiction at his/her place of residence; or
  - (b) Sterling BackCheck – for existing account holders, log into your account to send individual invitations to employees requiring security clearance. For those that do not have an account, click on the following link to open an account:  
<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity> ; or
  - (c) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <https://www.commissionaires.ca/en/manitoba/home>; or
  - (d) FASTCHECK Criminal Record & Fingerprint Specialists, forms to be completed can be found on the website at: <https://myfastcheck.com>
- E1.2 The original Police Information Check (Form P–612) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner. The applicant shall:
- (a) Provide the original Police Information Check (Form P–612) to the Project Manager.
- E1.3 A Sterling BackCheck account must be setup 72 hours prior to requesting your first checks for any individual to allow sufficient time for activation of your account. If you have an existing City of Winnipeg Sterling Backcheck vendor account, you may skip to (c) below.
- (a) Authorized individual of contracting company: Complete the Sterling Backcheck Setup Form. There is no cost to your organization to set up your account. Click on the link below, complete the form and hit Submit. \*(This form is completed by the company, not by the individual requiring the security clearance).  
<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>
  - (b) Within 48 hours you will receive your Username and Password for Sterling Backcheck. It will appear in your Inbox as a Welcome to Sterling Backcheck email. Please watch for it. Upon receipt you will be asked to login to the Sterling Backcheck website to set your security questions and password. Once you have done so you are ready to submit security clearance requests.
  - (c) In order to run a Criminal Record Check and/or Global Sanctions & PEP, follow the steps below:
    - ◆ Click on the sub-tab labelled “Order eConsent”
    - ◆ Fill out the required information about your employee (the person that requires the security clearance)
    - ◆ Select your location under the “Order Information” section and enter your organization’s phone number, if required.
    - ◆ Select the individual service(s) that you require in the dropdown menu under the “Select Services” section. If you require both the Criminal Record Check and the Global Sanctions & PEP, you will select Sterling Backcheck Package One (with electronic identity verification). Once selected, you should see that both the Canadian Criminal Record Check and the Global Sanctions & PEP have a grey check mark beside them.
    - ◆ Scroll down to the bottom and click the blue “Submit” button. You have now invited your employee to complete their security clearance.
    - ◆ Employee receives the invitation, clicks on the link, and completes their Criminal Record Check and/or Global Sanctions & PEP. This takes only a few minutes.

- ◆ 24 hours later the results go direct to City of Winnipeg and to your organization.

(d) If you have any questions please contact Linda Ferens directly at 204-999-0912 or by email at: <mailto:linda.ferens@sterlingcheck.com> OR <mailto:managedsupport@sterlingcheck.com>.

- E1.4 Prior to the award of Contract, and during the term of the Contract if additional or replacement individuals are proposed to perform Services, the Consultant shall supply the Project Manager with a Police Information Check and a Global Sanctions & PEP Check obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform the Services.
- E1.5 Any individual for whom a Police Information Check and/or a Global Sanctions & PEP Check is not provided, or for whom a Police Information Check indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Services.
- E1.6 Any Police Information Check and a Global Sanctions & PEP Check obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- E1.7 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated Police Information Check and/or a Global Sanctions & PEP Check. Any individual who fails to provide a satisfactory Police Information Check and/or Global Sanctions & PEP Check as a result of a repeated Police Information Check will not be permitted to continue to perform any Services as specified in E1.1