



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 769-2023

**PROFESSIONAL CONSULTING SERVICES FOR TRANSFORMER REMEDIATION
WORK FOR FLOOD STATIONS**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 PROFESSIONAL CONSULTING SERVICES FOR TRANSFORMER REMEDIATION WORK FOR FLOOD STATIONS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 26, 2024.

B2.2 The Consulting Contract Administrator or the Manager of Purchasing 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 Consulting Contract Administrator or an authorized representative will conduct a reference site investigation tour:

- (a) April 9, 2024 at 2:00 P.M. Reference site of existing conditions. Baltimore Flood Station located at 246 Churchill Drive;
- (b) April 11, 2024 at 2:00 P.M. Reference site of completed work. Roland Flood Station located at 16 Archibald Street;
- (c) Proponents are required to bring their own PPE (safety vest, boots, hard hat, safety glasses and gloves) to the Site Investigation. Proponents without appropriate PPE will not be allowed access inside the Station.

B3.1.1 Proponents are requested to register for the site investigation by contacting the Consulting Contract Administrator identified in D2.

B3.2 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Proponents attend.

B3.3 The Proponent shall not be entitled to rely on any information or interpretation received at the site investigation unless that information or interpretation is the Proponent's direct observation, or is provided by the Consulting Contract Administrator in writing.

B3.4 The Proponent is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Proposal or their performance of the Work, and shall assume all risk for conditions existing or arising in the course of the Work which have been or could have been determined through such inspection.

B3.5 Access to lower level is not required. Access will be permitted by request with a valid confined space training certification.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Consulting Contract Administrator identified in D2.

B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal, or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Consulting Contract Administrator 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 Consulting Contract Administrator, require a correction to or a clarification of the Request for Proposal will be provided by the Consulting Contract Administrator to all Proponents by issuing an addendum.

- B4.4 Responses to enquiries which, in the sole judgment of the Consulting Contract Administrator, do not require a correction to or a clarification of the Request for Proposal will be provided by the Consulting Contract Administrator 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 Consulting Contract Administrator. Failure to restrict correspondence and contact to the Consulting Contract Administrator may result in the rejection of the Proponents Proposal Submission.
- B4.6 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Consulting Contract Administrator 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 Consulting Contract Administrator. The use and disclosure of the Confidential Information shall not apply to information which:
- (a) was known to the Proponent before receipt hereof; or
 - (b) becomes publicly known other than through the Proponent; or
 - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposals to the media or any member of the public without the prior written authorization of the Consulting Contract Administrator.

B6. ADDENDA

- B6.1 The Consulting Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B6.2 The Consulting Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.3 Addenda will be available on the MERX website at www.merx.com.
- B6.4 The Proponent is responsible for ensuring that they have received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.5 The Proponent shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.
- B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Consulting Contract Administrator indicated in D2.

B7. PROPOSAL SUBMISSION

- B7.1 The Proposal shall consist of the following components:

- (a) Form A: Bid/Proposal (Section A) in accordance with B8;
- (b) Fees (Section B) in accordance with B9.
- (c) Form P: Person Hours and Rates in accordance with B10.

B7.2 The Proposal should also consist of the following components:

- (a) Experience of Proponent and Subconsultants (Section C) in accordance with B11;
- (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B12;
- (c) Project Understanding and Methodology (Section E) in accordance with B13;
- (d) Management Proposal (Section F) in accordance with B14; and
- (e) Project Schedule (Section G) in accordance with B15.

B7.3 Further to B7.1 all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.

B7.4 Further to B7.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.

B7.5 Proposal format, 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.

B7.6 The Proposal shall be submitted electronically through MERX at www.merx.com.

B7.6.1 Proposals will **only** be accepted electronically through MERX.

B7.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B24.1(a).

B7.8 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

B8. PROPOSAL (SECTION A)

B8.1 The Proponent shall complete Form A: Bid/Proposal, making all required entries.

B8.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:

- (a) if the Proponent is a sole proprietor carrying on business in their own name, their 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 their 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 their 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 their duly authorized officer or officers;
 - (d) if the Proponent is carrying on business under a name other than their 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 Proposal shall include a Fixed Fee for all disciplines and/or phases identified in D3.5 Scope of Services.
- (a) Transformer testing, report and recommendations (D7)
 - (b) Preliminary Design (D8)
 - (c) Detailed Design (D9)
 - (d) ARC Flash (D10)
 - (e) Procurement Process (D11)
 - (f) Contract Administration Services – Non-Resident (D12)
 - (g) Contract Administration Services – Resident (D13)
 - (h) Commissioning (D14)
 - (i) Record Documents (D15)
 - (j) Project Closeout (D16)
- B9.2 Adjustments to Fees will only be considered based on increases to the Scope of Services.
- B9.2.1 The City will not consider an adjustment to the Fees based on changes in the Project budget or the Final Total Construction Cost.
- B9.3 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.
- B9.4 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.
- B9.5 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.
- B9.6 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B9.6.1 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 D30. Any such costs shall be determined in accordance with D30.

B10. FORM P: PERSON HOURS AND RATES

B10.1 The Proposal shall include Form P: Person Hours showing the charge out rate for each project personnel, the total hourly breakdown for each task and assigned Key Personnel for each Fixed Fee item of Work identified in B9.1.

- (a) The Proponent shall submit a list of charge out rates for each generic project position (i.e. Lead Discipline Engineer, Discipline Drafter, etc.) and;
- (b) Form P may be a separate attachment or included in the proponent Management proposal (section F);
- (c) Form P for the purposes on the proposal may use and modify the provided template or create a suitable Form P provided all required information is provided.
 - (i) The City of Winnipeg Form P template can be found at [Additional Information - Template & Administration Site - Purchasing - City of Winnipeg](#)

B10.2 The hourly rate schedule for Key Personnel in Form P: Person Hours will be utilized where required for the Work identified in Additional Work Allowance. The proponent bid may be deemed non-compliant for failure to include form P.

- (a) The Proponent shall include an Additional Work Allowances, which have been included on Form B: Fees and should be included in Form P: Person Hours;
- (b) The Additional Work Allowances shall only be used with written permission of the Consulting Contract Administrator and;
- (c) There will be no fee escalation allowed for yearly adjustments, promotion, etc. The fee scale shall be fixed for the duration of the Project based on the rates set in Form P: Person Hours submitted in the Proposal Section F (B14.3(b)(ii)).

B11. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)

B11.1 The Proposal should include general firm profile information, including years in business, average volume of Work, number of employees and other pertinent information for the Proponent and all Subconsultants showing their ability to undertake the current Work.

B11.2 Proposals should include:

- (a) details demonstrating the history and experience of the Proponent and Subconsultants in providing programming; design, management of the project and contract administration services on three (3) projects of similar complexity, scope and value.

B11.3 For each project listed in B11.2(a), the Proponent should submit:

- (a) Description of the Project, Project objectives, size and other relevant information;
- (b) Location of the Project (street, city and province)
 - (i) Include before and after picture of the site and major deliverables;
- (c) Role of the Consultant;
- (d) Project's original contracted cost and final cost; shown separately for:
 - (i) Consultant:
 - (a) Any deviations between original and final costs shall clearly describe the differences identify the amount of scope changes and the reasons for each of them.
 - (ii) Construction:

- (a) Any deviations between original and final costs shall clearly describe the differences identify the amount of scope changes and the reasons for each of them.
 - (e) Design and construction schedule;
 - (i) include anticipated Project duration and actual Project delivery duration, showing design and construction separately;
 - (ii) include key dates, Award of Contract, 100% Detailed Design, Award of Construction Contract, Substantial Performance, Total Performance and Project Close-Out.
 - (iii) where the anticipated Project schedule and the actual Project schedule differ, the Proponent should submit an explanation clearly identifying the deviation.
 - (f) Project owner;
 - (g) reference information (two current names with telephone numbers and email address per Project); and
 - (h) General Contractor Company name.
- B11.3.1 Where applicable, information should be separated into Proponent and Subconsultant project listings.

B12. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)

- B12.1 Describe your approach to overall team formation and coordination of team members.
- B12.1.1 Include an organizational chart for the Project.
- B12.2 Identify the following Key Personnel assigned to the Project:
- (a) Project Manager;
 - (b) Contract Administrator;
 - (i) Non-Resident;
 - (ii) Resident;
 - (c) ARC Flash analysis;
 - (d) Transformer testing analysis; and
 - (e) All relevant Engineering services including Lead Electrical Engineer, Lead Structural Engineer and Lead Civil Engineer.
- B12.3 Submit the experience and qualifications of the Key Personnel assigned to the Project for projects of similar complexity, scope and value, including the principals-in-charge, the Consultants Representative, managers of the key disciplines and lead designers . Include educational background and degrees, professional recognition, job title, years of experience in current position, years of experience in design and years of experience with existing employer. Descriptions should include:
- (a) planned role of key personnel intended for this Project and why they would be a good fit for planned role;
 - (b) educational background and degrees;
 - (c) professional recognitions;
 - (d) current job title;
 - (e) years of experience in current position;
 - (f) previous job title(s) as applicable;
 - (g) years of experience in previous role(s) as applicable;
 - (h) years of experience in design and construction; and
 - (i) years of experience with current employer.

- B12.3.1 Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B12.1.1
- B12.4 For each person identified, list at least two (2) comparable projects in which they have played a primary role similar to that proposed for this Project. If a project selected for a key person is included in B10, provide only the project name and the role of the key person. For other projects provide the following:
- (a) Description of project;
 - (b) Role of the person;
 - (c) Project Owner;
 - (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 Project Manager or Contract Administrator.
 - (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.

B13. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)

- B13.1 Describe your firm's Project management approach and team organization during the performance of Services using Project specific details, so that the evaluation committee has a clear understanding of the methods the Proponent will use in the delivery of this Project. Clearly indicate how the tasks listed in the RFP will be performed.
- B13.2 Methodology should be presented in accordance with the Scope of Services identified in D3.5.
- B13.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project.
- B13.4 Proposals should address the following as separate proposal sections:
- (a) the team's understanding of the Project and technical requirements;
 - (b) the team's approach and methodology to complete the Work;
 - (c) Location specific issues;
 - (i) Facility operational requirement;
 - (ii) Management of MB hydro outages;
 - (d) any perceived Project challenges and how they will be overcome;
 - (e) any activities and services to be provided by the City;
 - (f) the deliverables and the associated task requirements of the Project;
 - (g) all significant assumptions and interpretations related to the Scope of Services;
 - (h) the Proponents understanding of the City Design Guidelines and how they will be used on this project;
 - (i) the Proponents understanding of City standardization documents for equipment identifiers, wire labelling, document numbering, drawing templates, descriptions, etc.;
 - (j) the Project methodology with respect to the information provided within this RFP and the City's Project Management Manual at <http://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#2> and templates at <http://winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#4> ; and
 - (k) any other issue that conveys your team's understanding of the Project requirements.

B14. MANAGEMENT PROPOSAL (SECTION F)

- B14.1 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.
- B14.2 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project
- B14.3 Proposals should address:
- (a) job function for each identified individual and group of individuals so identified;
 - (b) time estimates by Work activity/phase defined in D4.1 Scope of Services and in total for each individual identified in B12.2;
 - (i) The Proposal should include Form P: Person Hours for all disciplines and/or phases identified in D4.1 Scope of Services and in accordance with B14.3(b);
 - (ii) The total Fees on Form P: Person Hours should match Fees submitted in response to B9;
 - (iii) Proponents may use Form P: Person Hours or a table of their own design provided it includes all information requested in accordance with B14.3; and
 - (iv) A sample of Form P: Person Hours can be found at <https://winnipeg.ca/matmgt/templates/information.stm>.
 - (c) Risk and Quality Management systems that will be used on the project.
 - (d) Scheduling monitoring to ensure the Proponent and Contractor remains on schedule. Proponents should address actions to be done when design schedule starts to slip.

B15. PROJECT SCHEDULE (SECTION G)

- B15.1 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar project management software, complete with resource assignments (key designers), durations (weekly timescale) and milestone dates or events. The schedule should address each requirement of the Scope of Services.
- B15.2 The Proponent's schedule should include critical dates for review and approval processes by the City and other organizations anticipated during the design and tendering phases of the Project. Reasonable times should be allowed for completion of these processes.
- (a) It is anticipated that each design submission will require a minimum of ten (10) business days for City staff to review and should be shown on the project schedule.
- B15.3 Further to B15.1 and B15.2, the Proponent's shall include key project schedule milestones indicating the following milestone dates:
- (a) Award of Contract;
 - (b) Kickoff Meeting;
 - (c) Preliminary Design;
 - (d) 66% Design Submission;
 - (e) 99% Design Submission;
 - (f) Tender Submission(s) for required deliverables;
 - (g) Tenders Closing Date;
 - (h) 100% Design Completion;
 - (i) Construction Tender Posted to MERX;
 - (j) Long Leadtime equipment in manufacturing and delivery to site;
 - (k) Site location construction schedule;

- (l) Scheduled outages;
- (m) Construction Tender Closing Date;
- (n) New Equipment in Service;
- (o) Commissioning;
- (p) Substantial Performance;
- (q) Total Performance;
- (r) Record Drawings;
- (s) Project Close-Out; and
- (t) Other critical stages.

B16. DISCLOSURE

B16.1 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.

B16.2 The Persons are:

- (a) N/A

B17. CONFLICT OF INTEREST AND GOOD FAITH

B17.1 Further to C3.2, Proponents, by responding to this RFP, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B17.2 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 their 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.

B17.3 In connection with their Proposal, each entity identified in B17.2 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 Consulting Contract Administrator; 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.

B17.4 Without limiting B17.3, the City may, in their 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 their 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 their sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

B17.5 Without limiting B17.3, 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 their sole discretion:

- (a) disqualify a Proponent that fails to disclose a perceived, potential or actual Conflict of Interest of the Proponent or any of their 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 their 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 B17.4 to avoid or mitigate a Conflict of Interest; and
- (d) disqualify a Proponent if the Proponent, or one of their 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.

B17.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in their sole discretion.

B18. QUALIFICATION

B18.1 The Proponent shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract;
- (c) have all the necessary experience, capital, organization, and equipment to perform the Services in strict accordance with the terms and provisions of the Contract;
- (d) have or establish and staff an office in Winnipeg for the duration of the Project.

B18.2 The Proponent and any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <https://winnipeg.ca/finance/findata/matmgt/listing/debar.pdf>

B18.3 The Proponent and/or any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) have successfully carried out services for the 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;

- (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 (g) and D6);
- (g) have completed Confined Space Awareness Training for any proponent staff that will be accessing the lower levels of the Lift and Flood Stations;
- (h) Have submitted previous experience and approval of documents showing:
 - (i) Use of Power Tools software, performing Short-circuit studies, determining fault current, protection settings;
 - (ii) Submitted for approval sample ARC flash studies, labelling and reports;
 - (iii) Compliance of latest versions of the following standards and recommended practices.
 - (a) NFPA-70E
 - (b) IEEE-1584
 - (c) CSA-Z462

B18.4 Further to B18.3(f), the Proponent acknowledges they and all Subconsultants 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.

B18.5 The Proponent shall submit, within three (3) Business Days of a request by the Consulting Contract Administrator, further proof satisfactory to the Consulting Contract Administrator of the qualifications of the Proponent and of any proposed Subconsultant.

B18.6 The Proponent shall provide, on the request of the Consulting Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Consulting Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Services.

B19. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

B19.1 Proposals will not be opened publicly.

B19.2 After award of Contract, the Contract amount and the name of the successful Proponent and their address will be available on the MERX website at www.merx.com.

B19.3 The Proponent is advised any information contained in any Proposal Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B19.3.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Proposal Submission identified by the Proponent as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B19.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of their submission upon written request to the Consulting Contract Administrator.

B20. IRREVOCABLE OFFER

- B20.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B20.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Services for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B21. WITHDRAWAL OF OFFERS

- B21.1 A Proponent may withdraw their Proposal without penalty prior to the Submission Deadline.

B22. INTERVIEWS

- B22.1 The Consulting Contract Administrator may, in their sole discretion, interview Proponents during the evaluation process.

B23. NEGOTIATIONS

- B23.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B23.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.
- B23.3 If, in the course of negotiations pursuant to B23.2, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

B24. EVALUATION OF PROPOSALS

- B24.1 Award of the Contract shall be based on the following evaluation criteria:
- | | |
|--|-------------|
| (a) Proponent submission contains all required documents: | (pass/fail) |
| (b) Compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: | (pass/fail) |
| (c) Fees; (Section B) | 40% |
| (d) Experience of Proponent and Subconsultant; (Section C) | 15% |
| (e) Experience of Key Personnel Assigned to the Project; (Section D) | 15% |
| (f) Project Understanding and Methodology; (Section E) | 20% |
| (g) Management Proposal; (Section F) | 5% |
| (h) Project Schedule. (Section G) | 5% |
- B24.2 Further to B24.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure, contains limits, exceptions or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.

- B24.3 Further to B24.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in their Proposal or in other information required to be submitted, that it is qualified.
- B24.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B24.1(a) or B24.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B24.5 Further to B24.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.
- B24.6 Further to B24.1(d), Experience of Proponent and Subconsultants will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested, in accordance with B10.
- B24.7 Further to B24.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the experience and qualifications of the Key Personnel and Subconsultant personnel on Projects of comparable size and complexity, in accordance with B12.
- B24.8 Further to B24.1(f), Project Understanding and Methodology will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization, in accordance with B13.
- B24.9 Further to B24.1(g), Management Proposal will be evaluated considering your firm's understanding of the City's Project, Project management approach and team organization, in accordance with B14.
- B24.10 Further to B24.1(h), Project Schedule will be evaluated considering the Proponent's ability to comply with the requirements of the Project, in accordance with B15.
- B24.11 Notwithstanding B24.1(d) to B24.1(h), where Proponents fail to provide a response to B7.2(a) to B7.2(e), the score of zero may be assigned to the incomplete part of the response.
- B24.12 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B22.
- B24.13 Where references are requested, the reference checks to confirm information provided may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Proponent.

B25. AWARD OF CONTRACT

- B25.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B25.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be qualified, and the Proposals are determined to be responsive.
- B25.2.1 Without limiting the generality of B25.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Services;
 - (b) the prices are materially in excess of the prices received for similar services in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Services, or a significant portion thereof, with their own forces;
 - (d) only one Proposal is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

- B25.3 Where an award of Contract is made by the City, the award shall be made to the qualified Proponent submitting the most advantageous offer.
- B25.4 The City may, at their discretion, award the Contract in phases.
- B25.5 Further to B25.4 the City reserves the right to negotiate and award future phases to the successful Proponent.
- B25.6 Further to Paragraph 7 of Form A: Bid/Proposal and C4, the City may issue an award letter to the successful Proponent in lieu of execution of Contract Documents
- B25.6.1 The Contract documents as defined in C1.1(u) in their entirety shall be deemed to be incorporated in and to form a part of the award letter notwithstanding that they are not necessarily attached to or accompany said award letter.
- B25.7 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(v). Proponents shall refrain from providing their own General Conditions and Assumptions. Should a proponent provide their own Conditions and/or assumptions, their bid may be deemed as non-compliant.
- B25.8 If funding for the Services is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Proponents are advised that the terms of D30 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B25.9 Following the award of Contract, a Proponent will be provided with information related to the evaluation of their Proposal upon written request to the Consulting Contract Administrator.
- B25.10 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Proponent will be paid for all Services rendered up to time of termination.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Consultant Services* (Revision 2022-09-02) 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, Purchasing Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm.
- C0.2 A reference in the Request for Proposal to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Consultant Services*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. CONSULTING CONTRACT ADMINISTRATOR

D2.1 The Consulting Contract Administrator is:

Brent Soloway, C.E.T.

Project Coordinator

Telephone No. 204-451-4521

Email Address: bsoloway@winnipeg.ca

D2.2 At the kick-off meeting, the Consulting Contract Administrator will identify additional personnel representing the Consulting Contract Administrator and their respective roles and responsibilities for the Services.

D3. BACKGROUND

D3.1 This project will update Flood Station electrical distribution, allow for proper transfer of ownership between the City of Winnipeg and MB Hydro and install an isolation point on the primary side of the 10 Flood Station transformers between MB Hydro and the City of Winnipeg. ARC flash, transformer testing and electrical distribution updates will be included to ensure safety, accurate information and Flood Station reliability. Transformer reliability and service is crucial to maintain essential pumping service during flood season to ensure sewer systems remain operational to protect city civilian infrastructure. 3 sites also provide power year-round to lift stations.

D3.2 Historical record drawings, shop drawings, manuals, etc., for the Collection Stations are included in Appendices of this document.

(a) The information provided herein is for informational purposes only, and the City makes no claim or assumes liability for the accuracy of the information provided.

(b) Some stations have received updates, and the single-line diagrams have discrepancies. They should be considered reference information to provide a general understanding of the station's size and equipment. Creating or updating station electrical distribution drawings is part of the scope of the project. HART, St. John's, Galt, Cornish, Selkirk and Colony are known to have had significant upgrades to the electrical MCC and motor controls not reflected on current single line drawings.

D3.3 The detailed design stage for this Project will largely involve site locating of equipment and upgrading electrical distribution.

D3.4 The Transformer Remediation Work for Flood stations will generally consist of the following work:

(a) Transformer testing and recommendations. The consultant is to coordinate with MB Hydro, Wastewater services, and arrange for Contractors to perform inspection and testing. Oil samples are to be taken and tested. The consultant is to review all inspection and test results, notes, and make recommendations for maintenance work as required.

(b) Transformer soil testing as required if there is an indication of a leak or contamination;

- (c) Transformer remediation work as recommended and agreed upon will be included in the detailed design and incorporated into construction tenders as part of Transformer Remediation Work for Flood Stations.
- (d) Installation of a new pad-mount fused disconnect to create an isolation point between the City of Winnipeg and MB Hydro on the primary side of the city-owned transformers. Potential options include:
 - (i) Re-feeding the MB hydro power source to a new location chosen for the fused disconnect followed by the transformer or;
 - (ii) Relocate the existing transformer and install the new fused disconnect at the current transformer location
- (e) New installation and relocations of MB Hydro meters to the primary side of the City-owned transformers. The metering panel is to be mounted to the fused disconnect and readable via a sight glass. The fused disconnect is to allow for housing and installation of metering PT's and CT's.
- (f) Determine spring demand load list along with planned HVAC (future upgrades). The demand load shall be compared with the existing hydro service. Resulting change orders due to transformer replacement resulting in additional engineering services shall be completed under the additional work allowance;
- (g) Coordinate with MB Hydro and City inspector to ensure electrical distribution is brought up to code and all required documents for the inspector are prepared.
- (h) Update collections flood station electrical distribution drawings. Create or modify the electrical system single-line diagram to accurately represent the installed electrical system. Provide panel schedule, site layout, and other required drawings. All drawings are to use current standards and design guidelines, which include drawing numbers, superseding, title block arrangement, etc.
 - (i) Aubrey, Baltimore and Hart single line drawings include both Flood and Lift stations. Consultant Single line drawings are to be complete and include lift station equipment review and updates. Hart lift station has an upgraded MCC that is not reflective in the provided single line diagrams. Aubrey and Baltimore Lift Stations are believed to be accurate but may have minor changes for which review is required and updates as necessary.
- (i) Update ARC Flash. Investigate stations to gather data regarding electrical distribution, equipment, protection systems, etc. Contact MB Hydro for fault currents, create SKM software modeling, perform short circuit study, provide coordination study, perform Arc flash study, make recommendations regarding protection settings, provide arc flash labels and install. Prepare all findings into one overall report per station.
- (j) Construction will be broken up into three (3) phases, with 3-4 stations completed per phase. Equipment will be standardized across flood stations. Recommended spare parts will also be provided for new equipment to ensure ongoing maintenance activities can be performed.
- (k) Flood stations require Medium voltage (MV) fused disconnects between MB Hydro and the City-owned transformers. Transformer remediation Work sites include:

Station Name	Location	Description
Aubrey	1016 Palmerston Avenue	1 -1000 KVA Pad mount Transformer
Baltimore	246 Churchill Drive	1 - 500 KVA Pad mount Transformer
Colony	32 Mostyn Place	1 - 300 KVA Pad mount Transformer
Cornish	110 Cornish Avenue	1 - 300 KVA Pad mount Transformer
Galt	401 Waterfront Drive	1 -150 KVA Pad mount Transformer
Hart	174 Glenwood Crescent	1 - 300 KVA Pad mount Transformer
Mission	91 Archibald Street	1 - 500 KVA Pad mount Transformer
Polson	75 Scotia Street	1 - 300 KVA Pad mount Transformer

Selkirk	108 Selkirk Avenue	1 - 500 KVA Pad mount Transformer
St. Johns	20 Anderson Avenue	1 - 500 KVA Pad mount Transformer

D3.5 The Transformer Remediation Work for Flood Stations project is in conjunction with ongoing Flood station upgrades and rehabilitation projects. Schedule delays, unplanned events, etc., may alter plans and cause an overlap of planned construction work. While all 10 facilities are expected to be completed under the Transformer Remediation Work for Flood Stations project, there may be a removal of one (1) or two (2) from the scope of work throughout the project lifecycle. The project will be priced accordingly (per station), and awarded prices adjusted as required to accommodate any unforeseen changes in the scope of work.

D4. SCOPE OF SERVICES

D4.1 The Services required under this Contract shall consist of consultant engineering, procurement, construction contract administration services and project closeout in accordance with the following:

- (a) Transformer testing, analysis and recommendations (D7);
- (b) Preliminary Design (D8);
- (c) Detailed Design (D9);
- (d) ARC Flash (D10);
- (e) Procurement Process (D11)
- (f) Contract Administration Services – Non-Resident (D12);
- (g) Contract Administration Services – Resident (D13);
- (h) Commissioning (D14);
- (i) Record Documents (D15);
- (j) Project Closeout Services (D16) and;
- (k) Additional Work Allowances (D17).

D4.2 The Scope of Services outlined in (D4) provides a brief description of the Services and is only to be considered a guideline for Proposal preparation. The Consultant is encouraged to use their initiative when developing their Proposal to refine the Scope of Services activities and propose additional or alternative activities which they consider appropriate or beneficial to the Project.

D4.3 The Services required under D4 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 their professional expertise; the Consultant shall bring to the Consulting Contract Administrator’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.

D4.4 Unless otherwise stated, the document titled “Definition of Professional Consultant Services” and attached as Appendix C shall be applicable to the provision of Professional Engineering services for this Project.

D5. DEFINITIONS

D5.1 When used in this Request for Proposal:

- (a) **“Commissioning”** means a process by which equipment, a facility or a plant is tested to verify if it functions according to design and functional requirements;
- (b) **“CWO”** means Change Work Order;
- (c) **”PLC”** means Programmable Logic Controller;

- (d) **"I/O"** means Input / Output;
- (e) **"MCC"** means Motor Control Centre;
- (f) **"O&M"** means Operations & Maintenance;
- (g) **"OSS"** means Wastewater Services Operational Shutdown Summary;
- (h) **"PCN"** means Product Change Notification;
- (i) **"Professional Engineer"** means an engineer registered in the Province of Manitoba;
- (j) **"Record Documents"** means documents that are prepared and engineer sealed by the reviewing professional after verifying in detail the actual conditions of the completed Project;
- (k) **"RFI"** means Request for Information and;
- (l) **"Supply Chain Disruption"** means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption.

D6. GENERAL REQUIREMENTS

D6.1 General Requirements for the Consultant

- D6.1.1 The Consultant shall ensure that the Scope of Services is performed under direct supervision of a Professional Engineer.
 - (a) All drawings, reports, recommendations and other documents involving the practice of professional engineering shall bear the stamp or seal and signature of a qualified engineer 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 and;
 - (d) Create, manage and update the Project schedule.
- D6.1.2 Progress estimates, completion certificates, and other reports related to the technical aspects of this Project shall be endorsed by the Consultant's Representative in a manner acceptable to the City.
- D6.1.3 The Consultant shall coordinate and obtain approval/permit(s) where required, including but not limited to: Manitoba Hydro, MTS, and City Departments.
- D6.1.4 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 Consulting Contract Administrator on the application of codes and standards.
- D6.1.5 The Consultant shall coordinate with outside agencies required to perform the Services. The Consultant shall confirm with the Consulting Contract Administrator the agencies that are being contacted prior to doing so.
- D6.1.6 The City of Winnipeg has adopted Manitoba Building Code (2020 edition). All designs shall comply with the latest building code edition.

D6.2 General Requirements for Contract Administration

- D6.2.1 General Requirements.
 - (b) Administer the Procurement and Construction contracts.

- (c) Attend meetings with City staff to ensure all required information, issues, and concerns are accounted for.
- (d) 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.stms>

D6.2.2 Relevant City templates include but are not limited to:

- (a) pre-construction meeting agenda and meeting minutes;
- (b) proposed change notice (PCN);
- (c) request for information (RFI);
- (d) field instruction;
- (e) field instruction log;
- (f) Contract change log;
- (g) change Work order (CWO);
- (h) inspection report;
- (i) meeting minutes;
- (j) site meeting minutes;
- (k) Certificate of Substantial Performance;
- (l) Certificate of Total Performance; and
- (m) Certificate of Acceptance.

D6.2.3 All personnel provided by the Consultant for non-resident or resident engineering Contract Administration Work shall be experienced and qualified to perform the Work.

D6.2.4 The City reserves the right to withhold payment of Consultant fees for additional Contract Administration services which result out of errors or omissions in the design Work prepared by the Consultant.

D6.3 General Requirements for Project Deliverables

D6.3.1 All Deliverables shall have incorporated the Consultant's internal quality procedures before being submitted to the City.

- (a) All Deliverables shall be reviewed by a representative of the Consultant who is proficient in technical writing prior to being submitted to the City.
- (b) Any Deliverables deemed by the City to be of poor quality and/or incomplete be rejected and will be required to be revised and resubmitted at no additional cost to the City or additional time to the Project schedule.

D6.3.2 Project Deliverables include but are not limited to:

- (a) Safe Work procedure;
- (b) Technical specifications;
- (c) Preliminary Design;
- (d) New Construction Documents and Drawings;
- (e) Update of existing City Documents and Drawings
- (f) Preliminary Design Class 2 and Detailed Design Class 1 cost estimates;
- (g) Preparation, Tendering and Contract Administration of procurement and construction Tenders.
- (h) Consultant progress reports;
- (i) Meeting minutes;

- (j) Shop drawings;
- (k) Change control management documents (i.e. PCN's, CWO's, FI's, RFI's and associated logs);
- (l) Asset data schedule \ asset registry;
- (m) Operation and maintenance manuals;
- (n) Training documentation;
- (o) Record drawings and;
- (p) Commissioning documentation;

D6.3.3 The deliverables shall be submitted in a substantially completed draft format for review prior to submittal as a final document. All deliverables shall be submitted to the City's Consulting Contract Administrator. All City review comments shall be considered and incorporated into the final version.

D6.3.4 Submit comment tracking spreadsheet as part of draft document revisions and resubmissions.

D6.3.5 Comment tracking spreadsheet to log specific comments/edits requested by the City Working group, the Consultant's response, and City's acceptance/rejection of Consultant's response

D6.4 General Requirements for Drawings

D6.4.1 Drawings shall not be prepared using the City's GeoMedia data or Google Earth screen captures and instead shall be prepared from the legal plans, certificates of title, as-built drawings, record drawings, aerial surveys and/or topographic surveys.

D6.4.2 All drawings are to be drawn in accordance with The City of Winnipeg Manual for Production of Construction Drawings and Departmental requirements. All drawings will be ISO A1 size with loop diagrams being 11" x 17". The City will provide the correct CAD title blocks to be used after the project is awarded.

D6.4.3 Construction Drawings are to be prepared by the Consultant and will be included in the Tender Documents. Provide digital PDF's of the Construction Drawings to be posted on the City of Winnipeg web site for the bidding period.

D6.4.4 All drawings are required to be produced using AutoCAD standard software. Using any other software platform and converting to AutoCAD will not be acceptable. All AutoCAD drafting shall follow City of Winnipeg drafting standards.

D6.4.5 All profile components of drawings shall be in natural scale.

- (a) All drawings that include plans, elevations and section details are required to be metric scaled with all unique scalebars shown on the drawings;

D6.4.6 The proponent will be required to create all Station layouts such as XREF AutoCAD drawings to be used. It is acceptable for all discipline drawings to attach XREFs. Sealed construction drawings will be required to bind XREFs into the drawings.

D6.4.7 City drawing numbers shall be used for drawing index along with any drawing references. Under no circumstance shall Consultant internal drawing numbers be used for referencing drawings, including on drawing index.

D6.4.8 All demolition for new drawings to be created shall be revision 00. New construction work shall be revision 01 of the same drawing number. All drawing revisions are required to be sealed by a Professional Engineer and included as part of the Construction Tender Package.

D6.4.9 Where existing systems are being modified, the

- (a) show modifications to existing drawings by adjusting the existing revision number;

- (b) drawings that are no longer accurate or in use as a result of new or updated drawings shall be modified by marking them as obsolete;
- (c) the Consultant acknowledges that not all existing drawings are in CAD files and recreation of the drawing in CAD may be required;
- (d) the Consultant's professionals are responsible for the content of drawings bearing their seals. If existing drawing are being modified the Consultant shall notify the Consulting Contract Administrator;
- (e) Limited liability clauses will not be accepted on any final drawings; and
- (f) The Drawing Content document (Appendix H) shall be adhered to and utilized for revising and superseding existing drawings.

D6.4.10 The City shall approve 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. The Proponent will be required to fill out an excel template to list all new drawings to be created as part of the project, title lines of all five (5) title lines along with recommended WSTP drawing numbering standard for City review. The City will send the excel template for the Proponent to use.

- (a) Drawing numbers shall be requested from the WWD Supervisor of Drafting & Graphic Services. The following information is required with the request:
 - (i) City File Number;
 - (ii) Project Name;
 - (iii) Tender Number;
 - (iv) Contract Number, and
 - (v) Individual Drawing Titles (in spreadsheet format).
 - (vi) Drawing to be superseded by the new or updated and;
 - (vii) List of drawings to be marked superseded or obsolete;

D6.4.11 Drawings submitted for Tender should be complete with digital seal with revision description Issued for Construction.

D6.4.12 The City will provide comments on all review submissions. Comments shall be reviewed and incorporated into the final documents.

D6.4.13 The Consultant shall follow WWD construction drawing standards. This standard is available on the "Computer Assisted Drafting (CAD)-Geographic Information System (GIS) Standards" page at https://www.winnipeg.ca/waterandwaste/dept/cad_gis.stm, and the Process Drawing Standard as below:

- (a) document named "WWD CAD/GIS STANDARDS March 10,2023" (Appendix R);
- (b) City of Winnipeg Project Document Numbering Standard (Appendix P) and;
- (c) City of Winnipeg Drawing Content (Appendix Q);

D6.4.14 Draft Tender drawings to be submitted to the Consulting Contract Administrator for review and comment at preliminary design, 66% and 99% completion. Comments shall be reviewed and incorporated into the final Tender Drawings, as applicable.

D6.5 General Requirements for Progress Meetings

D6.5.1 Various Project meetings will be required throughout the Project in order to track the Consultant and Contractor progress, review the Project Work plan, address Project issues and allow for technical reviews with the City. The Consultant will be responsible for the coordination of all meetings and should clearly indicate in their Proposal Submission, locations, number of meetings and proposed meeting schedule associated with meetings for each of the various tasks/Work activities.

D6.5.2 Schedule and chair Project meetings.

- D6.5.3 An agenda shall be sent to the Consulting Contract Administrator at least two (2) Business Days prior to any meeting.
- D6.5.4 The Consultant shall take minutes at all meetings and Workshops in which they attend. Minutes are to be forwarded to the City's Consulting Contract Administrator within two (2) Business Days.
- D6.5.5 Mandatory meetings to be attended by the Consultant's Project Manager and all Key Personnel required for specific discussion topics are as follows:
- (a) Project Initiation Meeting (All Key Personnel required);
 - (b) Throughout the Detailed Design Phase, meet with the City steering committee monthly to discuss progress, findings, obtain input from City personnel, and discuss design options;
 - (c) Create and manage risk register. Lead two (2) project risk assessment workshop using the city of Winnipeg Risk Register template. Include WWD operations staff, and other City departments to identify operational constraints and concerns with the planned construction;
 - (d) Formal Design Review Meetings at preliminary design, 66% and 99% of detailed design (Key Personnel per Tender required) with location to be at 1199 Pacific Avenue.
 - (i) 66% design review meetings per Tender can be combined if appropriate, and if the Project schedule allows it.
 - (ii) 99% design review meetings per Tender can be combined if appropriate, and if the Project schedule allows it.
 - (iii) addressing City review comments;
 - (iv) anticipated construction cost; and
 - (v) anticipated constructability of the design.
 - (e) These meetings shall be shown in the Consultant's Project Schedule;
 - (f) Additional meetings can be accommodated to suit the Consultant's requirements, and should be shown in the Consultant's Project Schedule.
- D6.5.6 Remote Meetings
- (a) Informal meetings can be held remotely with Microsoft teams or similar software.
- D6.5.7 Construction Progress Meetings
- (a) To be held bi-weekly during construction.
 - (b) A combination of remote meetings and on-site meetings will be accepted by the City.

D6.6 Relevant Design Standards

- D6.6.1 The following design standards shall be applicable to this Project:
- (a) The City of Winnipeg, Water and Waste Department - Electrical Design Guide, current revision:
<https://winnipeg.ca/waterandwaste/dept/manual.stm#wastewaterWWD>;
 - (b) The City of Winnipeg, Water and Waste Department – Identification Standard, current revision: <https://winnipeg.ca/waterandwaste/dept/manual.stm#wastewater>;
 - (c) WWD Tag Naming Standard (Appendix D);
 - (d) WSTP Electrical and Instrumentation Standardization Summary (Appendix E)
 - (i) The City of Winnipeg has standardized on specific electrical and automation manufacturers. The Consultant should use standardized equipment in their design where applicable.
 - (e) Computer Assisted Drafting (CAD) and Geographic Information System (GIS) Standards and templates can be found here
https://legacy.winnipeg.ca/waterandwaste/dept/cad_gis.stm

- (f) Safety Management documents (Appendix F);
- (g) Project Document Numbering [drawing numbers] (Appendix G);
- (h) Drawing Content (Appendix H);
- (i) The City's Project Management Manual 4.0;
- (j) [Policy, Manuals and Templates - Asset Management Program - Infrastructure Planning Office - City of Winnipeg](#);
- (k) The City's Project Management templates:
<https://legacy.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#5> and;
- (l) Universal Design Policy
<http://clkapps.winnipeg.ca/DMIS/DocExt/ViewDoc.asp?DocumentTypeId=2&DocId=3604>

D6.6.2 The Consultant shall notify the Consulting Contract Administrator of any conflict identified between the documents listed under D6.6.1 for resolution.

D6.6.3 Notwithstanding the foregoing, the Consultant is being engaged by the City for its professional expertise; the Consultant shall bring to the City's Consulting Contract Administrator attention any aspect of the City's standards, manuals, guidelines or templates which the Consultant is of the opinion is not consistent with good industry practice.

D6.7 Utilize Standardized City Equipment

D6.7.1 New equipment shall be specified according to Standardized City Equipment as applicable.

D6.8 Cost Estimate

D6.8.1 Prepare required cost estimates per D7, D8, and D9. Incorporation of City review comments of the Tender package submissions.

D6.9 The Class Cost Estimate shall be completed using the latest version of the City's Basis of Estimate template, available on the City Asset Management Program page at The City of Winnipeg, Corporate Finance, Infrastructure Planning Division website:
<https://legacy.winnipeg.ca/infrastructure/asset-management-program/templates-manuals.stm#4>

D7. TRANSFORMER MAINTENANCE, TESTING, ANALYSIS AND RECOMMENDATIONS

D7.1 The consultant shall provide Contract Administration, direction and oversight services for Transformer maintenance service and testing. The consultant will act as an independent overseer to ensure the quality, accuracy, and effectiveness of the transformer testing of the appointed testing entity.

D7.2 The Consultant shall coordinate with outside agencies and City divisions external to the Water and Waste Engineering Division required to perform the services.

D7.3 The consultant shall manage transformer maintenance, testing and analysis services. Any subcontractors hired to assist with completion of work are to be identified by the consultant and be qualified to complete the request work with acceptable experience.

- (a) All services for transformer maintenance, testing, analysis and recommendation reports are to be lump sum fixed prices included in item 1 of Form B: Fees.
- (b) Unplanned immediate repairs will not be part of the recommendations and planned work for inclusion in the construction tender. Repair costs not part of the project shall be at no additional expense to the consultant. Unplanned repairs that are approved shall be considered out of the project scope and direct charged to the city by the subcontractor.

- (c) Subcontractor services costs required by the consultant in order to perform field maintenance, testing and lab testing are to be incurred by the consultant and in scope of the project; Fixed prices for subcontractor services shall be included in item 1 of Form B: Fees;
 - (i) The consultant will be responsible for all coordination and isolation of the transformers Primary electrical connection with MB Hydro;
 - (ii) The "City" Will be responsible for isolation of the transformer secondary and powering the stations as required during testing; and
 - (iii) The consultant will be responsible for oversight of all subcontractors required for transformer field work required for testing.

D7.4 The Contractor is expected to review the needs required for each transformer and prepare a list of all required maintenance, tests and items to be included in the testing report to be performed at each station. Testing to shall include but not be limited to:

- (a) Inspect all exposed surfaces for gouges, excessive wear and deformities;
- (b) Inspect drain cocks, plugs, fuse mountings& switches. Look for liquid seepage around tank, gaskets and walls;
- (c) Tank inspection;
- (d) Listen for abnormal noises;
- (e) Verify and note tilt angle is within tolerance;
- (f) Check for unusual odors and oil spots around the transformer;
- (g) Check pressure and temp gauges recording readings if equipped;
- (h) Check fuses and inspect if present;
- (i) Check for excessive deterioration of the transformer unit;
- (j) Check cable connections. Look for signs or damage and overheating. Ensure tight connections;
- (k) Check HV and LV bushings. Look for leakage and signs of breakage or general damage;
- (l) Check cables for excessive weight pulling or pushing on bushings;
- (m) Check the pressure relief valve for dirt or debris;
- (n) Check oil level;
- (o) Test oil sample for complete DGA (including H₂, C₂H₂, C₂H₄, CO & CH₄);
- (p) check ground connections;
- (q) Perform turn ratio test;
- (r) Perform resistance winding test;
- (s) Perform insulation resistance test;
- (t) Tan delta test;
- (u) Sweep frequency response analysis (SFRA);
- (v) Power factor test;
- (w) MEGGAR core and core ground test; and
- (x) Full internal and external inspections of cabinet and devices.

D7.5 Additional testing for transformer soil contamination shall be completed and submitted to MB Hydro, ALS Labs or Bureau Veritas approved alternate per D7.8 . Soil testing shall be deemed necessary if there are any leaks or indications of contamination. Testing for CCME PHCs Fractions 2, 3, 4, and PCBs shall be completed. The consultant is responsible for coordinating soil testing. Additional work for soil testing and analysis is considered additional work under the work allowance.

D7.6 Personnel proposed for transformer maintenance and testing shall be service technicians with 5 years of experience in performing Maintenance Works and tests with similar scope and complexity for Medium Voltage (MV) and Low Voltage (LV) equipment indicated in this Proposal

(a) Shermco Industries or approved equal in accordance with D7.8

D7.7 Works performed by the consultant and subcontractor relative to transformer testing and maintenance works shall be completed in accordance with the latest edition of the following and used for pass/Fail criteria:

- (a) ANSI NETA MTS;
- (b) CSA Z463;
- (c) NEPA 70B;
- (d) IEEE C57.104
- (e) Canadian electrical code

D7.8 Substitutes

D7.8.1 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

D7.8.2 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
- (b) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform services and be of equal or superior to that specified. Certify the subcontractor is capable of performing the same function as that specified

D7.8.3 The Contract Administrator, after assessing the request for approval of a substitute, may in their sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

D7.8.4 The Contract Administrator will provide a response in writing.

D7.8.5 Lab testing of oil samples collected by the consultant or subcontractor shall ensure experience of the lab meets the following criteria:

- (i) Proper accreditation.
- (ii) Have experience and capability analyzing/ testing dissolved gas and natural ester oils.
- (iii) Have Experience specifically testing and reporting on Transformer oil for a period of more than 5 years.

D7.9 Execution of transformer testing shall be as follows and contract administrated by the consultant:

- (a) Hire, oversee and coordinate a qualified Contractor to perform the required testing.
- (b) Coordinate with the Wastewater Services and obtain approval for scheduled outages for testing purposes
 - (i) Operational Shutdown Summary reports for each station shall be developed by the consultant in coordination with Wastewater Services using a provided template.
 - (ii) All site work at Flood stations requiring MB Hydro power outages will not be permitted during station activation (typically March 1 – Oct 31) without a written request, inclusion of an OSS and approval. Some exceptions may include:
 - i. an approved alternate power source or;
 - ii. favorable river and weather accommodating a defined short duration;
 - (iii) All site work effecting Lift stations (3) requiring MB Hydro power outages will not be permitted without a written request, inclusion of an OSS and approval. Outages are to be temporary in order to provide an alternate power source for 24/7 dry weather peak capacity operation of the affected Lift station during required construction work effecting power.

- (c) The consultant shall be required to attend transformer testing and coordinate activities;
- (d) Coordinate with MB Hydro, Wastewater services, and testing technicians. Schedule power outages and;
- (e) Oversee the hired Contractor for transformer testing.

D7.10 submittals

- D7.10.1 At the completion of the Work as described herein, the Contractor shall submit an individual Flood Station Transformer report for each station. Flood Station Transformer draft reports shall be submitted for review by the City. Upon City review and acceptance, the Contractor shall prepare and submit the final reports for each station.
- (a) Prepare Overall reports that summarizes test method, results, analysis of results and recommendations for remediation or replacement.
 - (b) Provide Class 1 cost estimates for both remediation and replacement;
 - (c) Indicate expected service life and condition of transformers;
 - (d) Include single line, specifications and pictures;
 - (e) All final reports and drawings shall be stamped and sealed by an electrical engineer registered and in good standing with the Association of Professional Engineers and Geoscientists of Manitoba (APEGM);
 - (f) Provide recommendations and;
 - (g) Upon completion of the Transformer Remediation Work for Flood Station Project the final reports shall be updated and submitted to record all work completed and as left.

D8. PRELIMINARY DESIGN DEVELOPMENT

- D8.1 The Consultant will perform all duties related to preliminary design.
- D8.2 Collect and review all available existing information including files, reports, drawings, operations information, etc. Where necessary, conduct site investigations and informal meetings with the Consulting Contract Administrator and Wastewater staff to verify existing conditions and to supplement available information.
- D8.3 The Consultant shall identify all permits necessary for construction at each site. The Consultant shall fill out permit information to assist a General Contractor for obtaining permits along with providing approvals to close out all permits.
- (a) The Consultant shall obtain all necessary permits, and regulatory approvals.
- D8.4 The Consultant shall review site equipment condition, new equipment requirement, site layout, code updates, MB Hydro requirement, inspector requirements, Engineering design and other requirements to develop a preliminary design report.
- D8.5 Meetings
- (a) Attend a mandatory kickoff meeting with the Wastewater Services Branches of the Department to review project expectations and limits. The Consultant shall ensure that all discipline leads attend the orientation meeting. The Consulting Contract Administrator will prepare meeting agenda and distribute meeting minutes.
 - (b) The consultant will host bi-weekly meetings in accordance with D6.5.
- D8.6 Site Visits
- (a) Attend mandatory preliminary site visits to all sites with the Consulting Contract Administrator and Wastewater staff to review existing site conditions, take measurements and collect data. The Consultant shall ensure that all discipline leads/staff attend the preliminary site visit. The Consultant will be required to arrange the site visit with the Supervisor of Wastewater Collection

- (b) The Consultant will be allowed to take pictures of the collection facilities provided no City staff are in the pictures.
- (c) Any staff requiring to access the lower levels of the Lift Station will be required to have Confined Space Entry Training. The Consulting Contract Administrator will be checking all Consultant staff planning to enter the lower areas on site. Any staff that can not produce proof of training on site will not be allowed to enter the lower levels of the Lift Station.

D8.7 Preparation of a Preliminary Design Report complete with description of each discipline work to be performed. The report shall include:

- (a) Background information on facilities at each Station.
- (b) Reference standards/codes to comply with.
- (c) Reference the transformer testing results, analysis and recommendations;
- (d) Reference soil testing as completed and make recommendations;
- (e) Standardized City equipment to use on the project.
- (f) Separate sections for each discipline engineering work.
- (g) Options for City staff to select anticipated designs.
- (h) High level CAD Drawings (such as electrical single line diagrams, Site plan drawings, elevation details, etc.).
- (i) Equipment List to convey the design. Provide options for City staff to select anticipated designs. Provide an excel Drawing Number and Titles of each line of planned drawings to be produced.
- (j) An excel drawing list to include all drawing numbers and all title lines, separated out for each discipline to be created for the project. The Consultant Contract Administrator will arrange for drawing numbers and title lines to be reserved once received from the Proponent. The Consulting Contract Administrator will provide a sample template to be used.
- (k) Provide a Class II cost estimate for the proposed work at the Preliminary Design Submission.

D8.8 Provide Preliminary Design engineering services including:

- (a) General
 - (i) The existing Building size will not house new equipment required for this project. The Consultant shall design a location of sufficient size for all new equipment. Equipment may be outdoors on a concrete pad provided all codes and equipment specifications are in compliance. Equipment shall be located within property lines and not interfere with existing services or access.
- (b) Civil Engineering
 - (i) Concrete equipment pads with protective bollards as required shall be designed for mounting and installation of new equipment.
 - (ii) Trenching, soil removal, backfill and landscaping as required and;
 - (iii) Provide site layout plan with existing services and proposed locations for new equipment.
- (c) Electrical Engineering
 - (i) Review electrical distribution, existing power cables and equipment locations to propose an updated layout for new equipment;
 - (ii) Consult with MB Hydro for approval of proposed layout;
 - (iii) Review codes and ensure compliance and make recommendations for transformer and disconnects during the preliminary design report. Provide details on what would be needed to bring up to current codes;
 - (iv) Refer to City of Winnipeg Electrical Design Guide for new equipment requirements associated with City of Winnipeg Wastewater infrastructure;

- (v) Prepare a spring demand load list with pumps running along with planned HVAC (future upgrades) and miscellaneous electrical loads. The demand load list shall be compared with the existing hydro service to determine if an upgrade is needed;
- (vi) Provide preliminary design for new equipment to be used on the project and updated electrical distribution;
- (vii) Preliminary design to reuse existing transformers and;
- (viii) Provide design for new electrical equipment to be provided as part of the project.

D9. DETAILED DESIGN DEVELOPMENT

- D9.1 The Consultant will perform all duties related to detailed design, specification development, procurement, Tendering, Contract Administration, and record drawings.
- D9.2 The development of the Detailed Design shall be based upon the Preliminary Design derived from existing equipment, facility design specifications, review comments, operational and maintenance requirements.
- D9.3 The Project shall generally conform to the latest codes, standards, regulations, licences and legislative requirements in effect. The Consultant shall liaise with the City on the application of codes and standards.
- D9.4 Prepare a landscaping plan for a development permit.
- D9.5 The Consultant shall coordinate with outside agencies and City divisions external to the Water and Waste Engineering Division required to perform the services
- D9.6 Organize meetings with City staff to ensure all required information, issues, and concerns are accounted for.
- D9.7 The Detailed Design shall include all requirements including but not limited to: site development, civil, structural, and electrical.
- D9.8 Unless otherwise stated, the indicated deliverables and any other deliverables which, in the opinion of the Consulting Contract Administrator are typical of a Detailed Tender Package, shall be prepared by the Consultant. Delegation of deliverables to the construction Contractor will not be accepted.
- D9.9 Each discipline shall perform at minimum monthly construction site inspections to verify construction Works conforms with Contract documents.
- D9.10 The consultant will host regular bi-weekly meetings in accordance with D6.5. Meeting shall be a combination of remote teams meetings and site meeting will be required during construction.
- D9.11 Design stage submissions shall be provided for City staff to review Consultant work. The following design submissions and list of deliverables at each design stage submission includes:
 - (a) Prepare a 66% Design Package complete with Drawings List in excel format, Drawings, Specifications, equipment list, and Class II cost estimate.
 - (b) Prepare a 99% Design Package complete with Drawings, Specifications, Tender submission documents, equipment List, Shop Drawing Submittal Log and Class I cost estimate.
 - (c) Prepare a 100% Design (Tender Ready) Package(s) review submission complete with Drawings, Specifications, equipment List, Shop Drawing Submittal Log and Class I, revised pre-tender cost estimate. The pre-tender estimate must be provided to the Department's contact person for review at least fifteen (15) calendar days prior to tendering. The project shall not be tendered without this review.
- D9.11.1 The Consultant should allow for a ten (10) Business Day review period for the City to provide comments. A blackout period of December 23-January 3 will apply to the review period if applicable. This should be accounted for and shown in the Proposal;

- (a) Submit electronic copies of the draft Tender document and technical specifications in Microsoft Word format;
 - (b) The electronic copies of the draft Drawings shall be submitted in PDF format;
 - (c) Conduct a meeting to review the City's comments on the draft Tender documents and;
 - (d) Incorporate all City comments into the final Tender package.
- D9.12 Preparation of all Tender documents in accordance with section D11 procurement process and the development of separate Tender/Tenders and direct purchases required by the project.
 - (a) Tender the procurement of goods and materials with long delivery schedules will be completed on an as required basis to ensure site construction windows can be maintained and prevent delays, long leads time items that may effect schedules may include but are not limited to: electrical disconnects, transformer and electrical components. Station design for electrical modification to be completed and reviewed by the department prior to Tendering;
 - (b) Prepare three (3) complete construction tender packages and contract admin each phase. Work at all 10 sites is planned to be broken up into 3 phases, completing 3-4 stations per dry-weather season. Alternate station groupings and wet weather season work may be considered provided station level of service is maintained, outages are minimized and station operation can be maintained at no additional costs.
 - (c) Preparation of standardized equipment procurement as applicable.
 - (d) Coordination with city inspectors and MB Hydro are to be coordinated by the Consultant. Submission documents for review, meeting is to be included as submission documents.
- D9.13 The consultant will provide Contract administration of the tendering process per section D11 procurement process.
- D9.14 Required drawings shall not supersede proper engineering design and additional required drawings. Drawings are to be specific to each site and typical shall not be acceptable.:
- D9.14.1 Provide Drawings from all disciplines. Required drawing are not limited to but shall include:
 - (a) Provide an overview single line drawing of the entire facility on A1 or AO drawing including Lift stations where applicable;
 - (b) Site layout showing underground utilities and cable locations;
 - (c) Provide comprehensive detailed single line drawings. Provide an alternate version to indicate the arc flash category next to each piece of equipment with expiration.
 - (d) Provisions for Concrete pad installations and buried cable entry for mounting of equipment;
 - (e) Provide demolition and construction drawing; Provide three line schematics for all switchgear, and specific details within electrical distribution equipment, such as power meters and voltage monitors
 - (f) Provide detailed panel and schedules as needed. Indicate loads, wire sizes, breakers details, and spare panels.
 - (g) Provide detailed plan layouts for affected all electrical equipment
 - (h) Provide grounding plan and riser diagrams as required to clearly indicating all new dedicated grounding conductors within the facility.
- D9.14.2 The Consultant shall provide a Landscaping and Lot Grading Plan along with a Site Services plan for each site that are required as part of a City of Winnipeg Development Permit application.
- D9.15 The deliverables are to include, but not limited to:
 - (a) Transformer and soil testing, analysis and report;

- (b) Contract administrative transformer testing and remediation work at each site in addition to electrical distribution upgrades;
- (c) Provide tendering documents. Include additional construction tender services as required due to testing reports and analysis. Some items that may be required as a result of testing and analysis may include, soil contamination, transformer repair, transformer maintenance or transformer replacement;
- (d) Include equipment specifications and transformer remediation work into construction tenders in addition to electrical distribution which includes but is not limited to additional of a fused disconnect between the City of Winnipeg and MB Hydro, isolation point on the transformer secondary as required, upgraded grounding to meet code and relocation of metering equipment;
- (e) Provide design calculations for all electrical design;
- (f) Class 1 and 2 cost estimates per preliminary and detailed design requirements;
- (g) Installation of a fused disconnect outdoors for a new transfer of ownership point between MB Hydro and the City of Winnipeg;
- (h) Relocation of hydro metering from the transformer secondary to primary mounted to the fused disconnect;
- (i) Upgraded grounding drawings for code compliance with addition of new equipment;
- (j) Outside equipment is to be installed on raised concrete pads;
- (k) Transformer maintenance, repairs and remediation work is expected, to be included in the tender(s) and considered in scope. Additional consulting services for specification, sizing, design and procurement of any new transformers shall be completed under the additional work allowance;
- (l) Complete record drawing package adhering to all applicable City design guidelines and standards;
- (m) Provide construction plan;
- (n) Updated ARC flash studies and labels per section D10;
- (o) Provide electrical commissioning and testing forms for the Contractor to complete during commissioning
- (p) Equipment labeling using city guidelines and standards and ensuring weatherproof labels and SS tags as required.
- (q) Coordination with Manitoba Hydro for required power supply. Obtain Class 1 Cost estimate from MB Hydro for required power supply.
- (r) Provide electrical connection/termination to power supply with Manitoba Hydro.
- (s) Protection coordination diagrams to be provided to the city.
- (t) Provision shall be made to electrically isolate and lock out equipment
- (u) Provide new equipment asset information formatted using provided template for entry into OWAM (maintenance tracker);
- (v) Operation and maintenance manual requirements;
- (w) Provide Safe Work Procedures for operation of the disconnect and isolation of the transformer for maintenance;
- (x) Contractor training requirements;
- (y) Contractor commissioning requirements;
- (z) Any other information required by the Contractor; and
- (aa) Warranty inspection;

D10. ARC FLASH

D10.1 The overall intent of the ARC flash reports are to:

- (a) Investigate and determine the ARC flash energy levels of all electrical equipment in the identified Flood stations. Where Flood stations have an associated Sanitary Lift station, the

- lift station would be fully investigated and assessed to the same level as the flood pumping stations;
- (b) Each Flood and Lift station is to be considered separate and have its own ARC flash study and report. It is understood sections will be in replication where a Lift and Flood are powered from the same transformer.;
 - (c) Make recommendations where appropriate on how to reduce ARC flash energies;
 - (d) Identify appropriate PPE (personal protective equipment) and ensure station labeling and identifying required PPE for all electrical equipment at each station;
 - (e) Provide a detailed ARC flash report detailing all relevant findings and;
 - (f) Provide the installation of ARC flash labels for all electrical equipment based upon the arc flash study.
- D10.2 The Contractor shall calculate the maximum available ARC flash energies at the following locations. This is a non-exhaustive list. Refer to CSA Z462 Electrical Workplace Safety for more detail:
- (a) Switchgear;
 - (b) Distribution switchboards and panel boards;
 - (c) MCC's;
 - (d) Disconnect Switches;
 - (e) Standby Generators;
 - (f) Manual Transfer Switches;
 - (g) Automatic Transfer Switches;
 - (h) Busway and Splitters;
 - (i) Motor Starters;
 - (j) Power Factor Correction
 - (k) All Medium Voltage equipment
 - (l) Primary and Secondary connection Cubicles and;
 - (m) Other significant locations throughout the system as identified by the Contractor or the City.
- D10.3 The ARC flash analysis and procedures will comply with the latest version of the following standards and recommended practices for power system studies:
- (a) NFPA-70E - Guide for electrical safety in the workplace;
 - (b) IEEE-1584 - Guide for performing ARC flash hazard calculations;
 - (c) IEEE-141 – Recommended practice for electrical power distribution for industrial plants;
 - (d) IEEE 242 - Recommended practice for protection and coordination of industrial and commercial power systems;
 - (e) IEEE 551 - Recommended practice for calculating short circuit currents in industrial & commercial power systems;
 - (f) IEEE 1015 - Recommended practice for applying low voltage circuit breakers used in industrial and commercial power systems;
 - (g) CSA-Z462 - Workplace Electrical Safety;
 - (h) CSA C22.1 - Canadian Electrical Code, Part I – Safety Standard for Electrical Installations (CEC);
 - (i) ANSI / IEEE C37.13 – Standard for low voltage AC power circuit breakers used in enclosures and;
 - (j) The Manitoba electrical code.
- D10.4 Consultant Work for each Station addressed by the project shall include:
- (a) Information gathering and investigation;
 - (b) Site visits and equipment verification;
 - (c) Obtain new short circuit levels from Manitoba Hydro to produce the arc flash report

- (d) Create a software model of the electrical distribution for each station using the Power Tools Software SKM. In the event that standard library data is not available for all circuit breakers, best approximations may be utilized to facilitate timely and economic completion of the work.
- (e) In addition to the station's single-line diagrams, an alternate single-line diagram shall be provided showing ARC flash information with the date the information is valid. The CAD files are to be submitted to the city and included as part of the project
- (f) ARC flash energies to be kept as low as reasonably attainable;
- (g) Identify appropriate breaker sizes and protection settings to make recommendations to lower ARC flash where appropriate.
- (h) Obtain or create software libraries for protective devices to be utilized in the model.
- (i) Perform a short-circuit study with protective device evaluation, via SKM, to determine the available fault current at each relevant point within the electrical distribution.
- (j) Perform a coordination study, utilizing SKM to determine the required protection settings of the main distribution breakers and circuit breakers. Recommend adjustments where necessary.
 - i. Model the proposed changes to identify approximate arc flash energy levels and ensure that the design provides for lower arc flash energies within the Station.
 - ii. The city shall review the recommendations prior to finalizing ARC flash, and the Arc flash study shall be adjusted where changes are implemented
- (k) Perform an arc flash study, utilizing SKM, to determine the potential arc energy levels at the various distribution points.
- (l) Recommend appropriate personal protective equipment (PPE) for City personnel. The recommendations will be based on the energy levels determined from the arc flash study. Each station is to provide appropriate labeling and information to ensure appropriate PPE is sufficiently understood at each station
- (m) Provide and install ARC flash labels for all electrical equipment based upon the arc flash study, revised to as-constructed. Arc flash labels are to be consistent with City Standards. Weatherproof and vandal-protected arc flash warning labels to be provided as per city standard and CSA Z462 standards.

D10.5 Submittals:

D10.5.1 At the completion of the Work as described herein, the Contractor shall submit ARC flash draft reports for review by the City. Upon City review and acceptance, the Contractor shall prepare and submit three (3) hard-covered color copies of the final reports. 11X17 updated single-line diagrams showing ARC flash information shall be included. The Contractor shall provide native files (Including SKM model and library files) and PDF files digitally. Provide four (4) copies of the ARC flash report submittal documents upon project completion on USB memory sticks.

- (a) Prepare one overall summary report in addition to station reports of ARC flash findings and recommendations at all included stations;
- (b) All final reports and drawings shall be stamped and sealed by an electrical engineer registered and in good standing with the Association of Professional Engineers and Geoscientists of Manitoba (APEGM) and;
- (c) An editable word document is to be provided as a draft copy of the ARC flash report for future updates.

D10.5.2 The final ARC flash report for each station shall include the following:

- (a) Title Page with revision history
- (b) Table of contents
- (c) Executive summary, which shall include a summary of any coordination issues or points of concern requiring immediate attention.
- (d) Descriptions, purpose, basis, and scope of the study

- (e) Power system model description (i.e. assumptions and technical detail describing how scenarios were created);
- (f) Equipment nameplate information.
- (g) Tabulations of circuit breaker, fuse, and other protective device ratings versus calculated short-circuit duties.
- (h) Equipment incident energy, coordination of protective devices with time current curves (TCCs) showing each downstream breaker up to the incoming hydro protective devices along with equipment short-circuit duty results. TCCs shall include a single line and logarithmic graph with each device labeled to match single line equipment tags;
- (i) Protective device time versus current curves, tabulations of relay and circuit breaker trip unit settings, fuse selection.
- (j) A brief explanatory key to any curves or graphs should be provided to aid with interpretation.
- (k) Fault current calculations including a definition of terms and a guide for the interpretation of the computer printout.
- (l) Details of the incident energy and flash protection boundary calculations for each scenario analyzed.
- (m) Protection device settings
- (n) Recommendations for system improvements/hazard mitigation or reduction (i.e.: protection settings/devices adjustments, replacement of underrated equipment, etc.), grouped by the level of effort required
- (o) An Arc Flash Hazard results table summary, which shall include:
 - i. Location & equipment designation
 - ii. Nominal voltage
 - iii. Flash protection boundary
 - iv. Incident energy
 - v. Working distance
 - vi. Required PPE for each hazard risk category
- (p) Printable ARC Flash labels
- (q) Single-line diagram with ARC flash information
- (r) Detailed legend indicating device type identification and other significant details
- (s) A list of missing or unverified equipment information and a list of assumptions

D11. PROCUREMENT PROCESS

- D11.1 After Approval by the Consulting Contract Administrator, submit the Construction Tender Package(s) to City of Winnipeg Purchasing Division for public bidding.
- (a) Construction Tender Package(s) shall be prepared and posted in accordance with the City of Winnipeg Purchasing Division requirements.
 - (i) the City bid submission forms, Bid Procedures, General Conditions, Supplemental Conditions which are available at <https://legacy.winnipeg.ca/matmgt/templates/>;
 - (b) Coordinate review of the package with Purchasing and make changes as requested to the Tender package.
 - (c) Relevant drawings and development of NMS format specifications shall be included in the construction tenders.
- D11.2 Provide appropriate response to Bidders and advice to the City during Tender call and issue addenda to the Contract documents as necessary.
- D11.3 Prepare a site visit meeting agenda to discuss high level scope of work and schedule.
- D11.4 Arrange and attend a mandatory Bidders site visit for Construction Tender Package(s). At the start of the site visit, coordinate a discussion meeting with all Bidders.

- D11.5 Prepare a list of all questions from all Bidders asked at the site visit and issue addenda to answer all questions.
- D11.6 Review bid submissions for completeness and prepare bid tabulations for multiple Tenders.
- D11.7 Perform a complete review of the low Bidder's qualification to determine if they are capable of performing the Work under the terms of the Contract.
- D11.8 If required, coordinate and lead a pre-award meeting with lowest qualified Bidder for which the purpose is:
- (a) To establish that the Contractor has received all the addenda;
 - (b) To ascertain that the Contractor understands the scope of work in the Tender;
 - (c) To determine that the Contractor is capable of meeting the obligations detailed in the Tender;
 - (d) To secure advisement by the Contractor of intended methods, materials, stages, timelines or sequences of the Contract that are of interest to the Department and;
 - (e) To afford the opportunity for each participant to fulfil the obligation of disclosing any known obstacle(s) to the conduct of the Contract, or of any expectation of significant revision thereof, if known at that time.
- D11.9 Complete a review, analysis, comparison, tabulation, calculation, and evaluation of the Bids received. Make recommendations for award of Tender.
- (a) 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. Submit a Letter of Recommendation, copies of the bids, a Tender comparison sheet, and a Tender tabulation.
- D11.10 Following Tender close, submit one (1) electronic copy of the Final Construction Tender Package including all addenda.

D12. CONTRACT ADMINISTRATION SERVICES – NON-RESIDENT

- D12.1 Personnel with demonstrated experience in the design and contract administration of the mechanical, electrical, structural, and civil components of the Works are to be assigned to this project.
- D12.2 Consultation with and provide advice to the Department during the course of construction.
- D12.3 Provide Transformer testing, analysis, recommendations and report as outlined in section D6.7.1
- D12.4 Preparation of a Station Arc Flash study to be completed as outlined in D9
- D12.5 Manage Contractor training deliverables and ensure training requirement and deliverables are completed as outlined in section D16.7
- D12.6 Coordinate and conduct a pre-construction meeting with all other relevant parties in attendance and provide minutes of meeting to all in attendance and those to be copied.
- D12.7 Participate in regular construction review.
- (a) Submit monthly contract progress estimates to be processed in a timely fashion in accordance with the General Conditions of the City of Winnipeg Standard Construction Specifications.
 - (b) Provide a detailed monthly "Cost to Complete" report. This report is to include the actual costs to date, plus projected costs to complete the project including allowances for any unforeseen cost with explanation and justification. The report shall identify any expected budget overruns or surpluses.

- (c) The typical frequency of the meetings shall be bi-weekly during the course of construction, although meeting frequency may vary based upon the level of construction activity.
 - (d) Arrange for construction meetings in person and/or over Microsoft Teams between the Consultant (including all key personnel), City staff and Contractor staff;
 - (e) Minutes of all meetings shall be distributed to all in attendance and the copy list. Meeting minutes shall be distributed no later than two (2) Business Days after the meeting has finished.
- D12.8 Assist the Contractor in obtaining applicable building permits (including electrical, mechanical, structural, new building construction, etc.) for each site. Each Consultant discipline Lead Engineer will need to complete and seal an individual City of Winnipeg Design Summary Letter.
- D12.9 Make application to public agencies for necessary authorizations and permits, prepare and submit reports and drawings thereto, and appear before the same in support of all applications for each site.
- (a) Authorizations and permitting from MB Hydro and City inspectors are required for each site.
- D12.10 Review and approve of Contractor submittals and ensure submittals are in conformance to the contract Drawings, Documents and Specifications, without relieving the Contractor of their contractual and legal obligations including:
- (a) Construction Tender Forms;
 - (b) Workplace Safety and Health Act (Manitoba) Program;
 - (c) Environmental Plan
 - (d) Safe Work Plan;
 - (e) Detailed Work Construction Schedule;
 - (f) Site Accessibility Plan.
- D12.11 Review and approve of shop drawings and manufacturers' drawings supplied by the Contactor or supplier to ensure to the Department that the shop drawings are in conformance to the contract Drawings and Specifications, without relieving the Contractor of their contractual and legal obligations in respect thereof.
- D12.12 Review and report to the Department upon laboratory, shop and other tests conducted upon materials and /or equipment placed or installed by the Contractor to ensure to the Department conformance to the contract Drawings and Specifications, without relieving the Contractor of their contractual and legal obligations in respect thereof.
- D12.13 Acceptance of alternate materials and methods, subject to prior acceptance by the Department, without relieving the Contractor of their contractual and legal obligations in respect thereof.
- D12.14 The consultant shall ensure Contractor compliance and manage site activities:
- (a) Review acceptability of inspection and test plans from Contractors, vendors or manufacturers.
 - (b) 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.
 - (c) Furnish copies to the Department of all significant correspondence relating directly or indirectly to the project by parties external to the Consultant's Contract Administrator (Contract Administrator).
 - (d) Promptly prepare, certify, and submit progress estimates to the City for payment to the Contractor(s) for construction performed in accordance with the drawings and specifications.
 - (e) Coordinate and prepare PCN's regarding the Contractor scope of Work. This may include the preparation of specifications and Drawings for the PCN.

- (f) Review extra Work claims submitted by the Contractor. Provide backup material to the Consulting Contract Administrator as requested.
- (g) Prepare and process CWO's accordingly in a timely manner.
- (h) Review and respond to Contractor RFIs in a timely matter.
- (i) Prepare Contractor site instructions/clarifications/directives.
- (j) Interpret technical aspects of the Contract as requested by the City.
- (k) Plan, coordinate, manage and lead all shutdown and tie-in protocols, required for construction and commissioning. Prepare detailed shutdown or tie-in protocols that detail out a schedule of Work, delegate responsibilities, and clearly identify all operational impacts and plans to address. Review operational and construction risks and plan risk mitigation measures as appropriate. Act as the interface between the Contractor and City during the shutdowns and tie-ins.
 - (i) Base any required construction shutdown and tie-in protocols on the procedures developed during the Detailed Design phase.
- (l) Administer Total Performance with regard to the construction Contract.
 - (i) Coordinate and lead a comprehensive, detailed inspection prior to Total Performance, including the Contractor and the City. Document and report on all issues identified and coordinate completion of the issues.
 - (ii) Make a recommendation to the Consulting Contract Administrator when the Contractor has achieved Total Performance.
 - (iii) Upon approval, prepare and issue the Certificate of Total Performance.

D12.15 Consultant billings are to indicate the fee breakdown for the submitted invoice as well as the total fees to date.

- (a) Consultant billings are to indicate the fee breakdown for the submitted invoice as well as the total fees to date.
- (b) Billings are to be adjusted to indicate the 2% of the actual construction value holdback until as-constructed drawings have been submitted. Invoices submitted without this breakdown will be returned.
- (c) Approved allowable disbursements and laboratory testing costs are to be shown as separate sub-totals from the fee charges.

D13. CONTRACT ADMINISTRATION SERVICES – RESIDENT

D13.1 Personnel with demonstrated experience in the design and Contract Administration of the mechanical, process, automation, electrical, structural, and civil components the Works are to be assigned to this Project

D13.2 Provide Project Management for Contract Administration Services using the City Project Management Manual templates where available. Project management services shall include:

- (a) Preparing meeting agenda and distributing meeting minutes;
- (b) Responding to Requests for Information;
- (c) Preparing Proposed Change Notices;
- (d) Providing Field Instructions;
- (e) Providing Inspection Reports;
- (f) Reviewing Contractor invoices and recommending amounts to be paid;
- (g) Review of Contractor requested scope changes and recommended approvals;

D13.3 The Consultant shall;

- (a) Provide a reference for the Works and check the Contractor's adherence.

- (i) Each discipline shall perform at minimum monthly construction site inspections to verify construction works conform with contract documents.
 - (b) Monitor the activities of the Contractor to ensure:
 - (i) Project schedules are being realized;
 - (ii) Contract requirements are being met;
 - (iii) Without relieving the Contractor of his contractual and legal obligations in respect thereof, conduct detailed inspection of construction sufficient to ensure that the Work carried out by the Contractor is in conformance with the Drawings and Specifications and;
 - (iv) site safety is in accordance with Provincial Regulations.
 - (c) Provide inspection services when the Contractor is on-site to ensure that the construction conforms to the design Drawings and specifications.
 - (d) Keep a continuous record of Project activities;
 - (e) Participate in regular construction review meetings.
 - (i) The typical frequency of the meetings shall be bi-weekly during the course of construction, although meeting frequency may vary based upon the level of construction activity.
 - (ii) Arrange for construction meetings in person and/or over Microsoft Teams between the Consultant (including all key personnel), City staff and Contractor staff;
 - (iii) Minutes of all meetings shall be distributed to all in attendance and the copy list. Meeting minutes shall be distributed no later than two (2) Business Days after the meeting has finished;
 - (f) Reports are to be promptly made the Department's contact person regarding unusual or changed site conditions which may or will result in extra Work to the Project.
 - (g) All extra Work to the Project must be reviewed and approved by the Department's contact person prior to approval being given to the Contractor to undertake the Work.
 - (h) Keep a continuous and accurate record of Working days and days lost due to inclement weather or other unforeseen circumstances during the course of construction
 - (i) Prepare, update, maintain, and coordinate a deficiency list of all issues identified during inspections. Coordinate remediation of the deficiency list with the Contractor and;
 - (j) Participate in a comprehensive, detailed inspection prior to Total Performance. Document and add all issues identified to the deficiency log.
- D13.4 Ensure that Quality Assurance/Quality Control (QA/QC) is undertaken to Building Code requirements and Departmental standards.
- D13.5 Arrange for regular job meetings at the worksite throughout the duration of the contract work. The meetings are to be attended by the Contract Administrator or their designate. The Consultant will be required to show pictures of Construction progress during virtual meetings
- (a) The typical frequency of the meetings shall be bi-weekly during the course of construction, although meeting frequency may vary based upon the level of construction activity.
 - (b) Arrange for construction meetings in person and/or over Microsoft Teams between the Consultant (including all key personnel), City staff and Contractor staff;
 - (c) Minutes of all meetings shall be distributed to all in attendance and the copy list. Meeting minutes shall be distributed no later than two (2) Business Days after the meeting has finished
 - (d) Construction meeting minutes is sufficient provided progress updates are documented, distributed and shall include but not be limited to:
 - (i) Written updates on the procurement, construction Work progress, Contract progress estimates and ongoing activities;
 - (ii) Action items;

- (iii) Upcoming and delays;
 - (iv) Photographic records of the construction.
 - (v) Any deficiencies found and corrections to be done,
- D13.6 In conjunction with the Department, provision of advance notice to adjacent residents and businesses who will have public services and/or access disruptions during construction.
- D13.7 Enforcement of Contractor conformance with the City of Winnipeg Manual of Temporary Traffic Control in Work Areas on City streets in compliance with expected standards of safety for motorists and pedestrians, without relieving the Contractor of their contractual and legal obligations in respect thereof.
- D13.8 Acting in the interest of the Department, provide responsible, sensitive and prompt reaction to the reasonable requests and complaints of citizens regarding the conduct of the project.
- D13.9 Arranging for and carrying out testing of materials to ensure conformance with code, condition, inspections, Drawings and Specifications, without relieving the Contractor of their contractual and legal obligations in respect thereof. Testing requirements are to be determined by the consultant including but not limited to:
 - (a) Transformer testing;
 - (b) Geotechnical testing and;
 - (c) Soil contamination including Hydrocarbon testing and PCB's).
- D13.10 Co-ordination and staging of other works by third parties on the site including, but not limited to, Hydro, Gas, Communications, inspectors, testing and other City forces. The Consultant key personnel will be required to attend site visits whenever applicable discipline inspections will be carried out by the Authority Having Jurisdiction. The Consultant shall after the conclusion of each inspection, notify the Contract Administrator in writing noting any deficiencies found by third party inspectors along with results of the inspection.
- D13.11 Final Inspections and Construction Acceptance
 - (a) Prepare a deficiency list for any deficiencies found and ensure items are corrected by the Contractor.
 - (b) As coordinated with the Department's contact person and the Contractor, provide inspection of the completed Works to establish the project milestones of Substantial Performance and Total Performance of the completed project.
 - (c) Coordinate with the Installation Contractor and Equipment Supplier for all required site testing and commissioning services.
- D14. COMMISSIONING**
- D14.1 The Consulting Contract Administrator shall require at minimum; Equipment manuals, commissioning documents and construction red line drawings as a prerequisite for commissioning.
- D14.2 Coordinate with the Contractor, the Department and other relevant parties any commissioning activities at each Flood station before any testing or activating of the new Station equipment.
- D14.3 Review and approve of commissioning plan supplied by the Contractor to ensure to the Department that the commissioning procedures are in conformance to the contract details, without relieving the Contractor of their contractual and legal obligations in respect thereof.
- D14.4 The Consultant will be required to attend commissioning activities at each Flood station site to ensure proper testing is performed.
 - (a) Ensure the Contractor fills out the required commissioning sheets/forms for each commissioning site visit to be incorporated into the O&M manual. City staff will be required to be on site during commissioning activities to witness commissioning. Separate commissioning forms are required for each piece of equipment. and;

- (b) Sign-off on all commissioning and training records.

D14.5 The Consultant shall perform the following Commissioning Services:

- (a) Coordinate with the installation Contractor and equipment supplier for all required site testing and commissioning services;
- (b) Provide checks sheets to be completed by the Contractor and validate;
- (c) Submit commissioning plan and testing documentation for review two (2) weeks prior to commissioning;
- (d) Coordinate with the Contractor to ensure appropriate measures regarding safety, health and environmental aspects are implemented throughout the commissioning activities;
- (e) Coordinate commissioning activities with Wastewater Services staff. Ensure that City personnel are always aware of the current commissioning status and any upcoming operational requirements or impacts;
- (f) The Consultant is fully responsible for the planning and leadership of the overall commissioning activities. While the Contractor and the City team may perform specific commissioning tasks, this does not reduce or eliminate the Consultant's responsibilities. Schedule and coordinate all commissioning Work in coordination with the Contractor's schedule;
- (g) Ensure all commissioning team members have clear definition of their role and understanding of their responsibilities;
- (h) Conduct pre-commissioning meeting(s);
- (i) Prepare agenda, lead and record minutes of the commissioning meetings;
- (j) Review all commissioning records and ensure that the overall commissioning records demonstrate compliance to the specifications and overall Project design requirements;
- (k) Ensure all equipment and control system settings are documented;
- (l) Manage the commissioning documentation:
 - I. Ensure commissioning forms are filled out and signed.;
 - II. Including general scope, Work completed, items requiring completion and/or changes and other items. Commissioning tasks shall include, but not be limited to;
 - (a) Test each operation and provide a detailed paper report documenting the checks.
 - (b) Check wiring, labels and provided detailed paper documentation;
 - (c) Test device warnings, alarms and lockouts signals and provided detailed paper documentation
 - (d) Validate lockout devices and sequence of SWP's are correct through live checks and;
 - (e) Perform Operational and Functional checks and provide detailed paper documentation.

D14.6 Commissioning checks are to include:

- (a) Project Name;
- (b) Drawing reference;
- (c) Equipment number, loop number, wire tag information as applicable;
- (d) Description of equipment and check function;
- (e) As applicable include: I/O address, analog range, test points, warnings, alarms, Voltages, currents, visual indicators, source/input/output, as-expected vs. as found results;
- (f) Functional checks;
- (g) Notes and;

(h) Date, time, name and signature.

- D14.7 The consultant is responsible for providing witnessing, sign off and submission of the final commissioning report for each Flood Station.
- D14.8 Ensure the Contractor fills out the required commissioning forms for each commissioning site visit to be incorporated into the O&M manual. City staff will be required to be on site during commissioning activities to witness commissioning activities. The City will provide standard checklist forms to be used on this project
- D14.9 The Consultant will be required to ensure all functional checks, I/O and station statuses for new equipment is completed;
- D14.10 The consultant is to ensure equipment is successfully commissioned and ensure utility along with Inspection and Technical Services (ITS) inspectors visiting site verify equipment operation and acceptance
- D14.11 Submission and acceptance of the commissioning report will be required for Total Performance.
- D14.12 Review all Contractor written commissioning forms to be incorporated into the final O&M manual.

D15. RECORD DRAWINGS

- D15.1 Record documents are to be submitted in two phases:
- (a) Red line drawings and;
 - (b) Final Record Documents.
- D15.2 Red-line Drawings and Commissioning.
- (a) The Consultant shall submit field red line drawings report noting any changes from the construction drawings. Initial Red-line drawings are to be provided prior to commissioning and;
 - (b) Final mark-up edits are to be provided post commissioning along with the raw commissioning testing and verification details.
- D15.3 Record Drawings.
- (a) Once all final revisions have been completed, submit four (4) complete sets of full size (A1 & ANSI B) drawings for the Works, and the digital AutoCAD and PDF file for each record drawing. Each drawing file must have the Water and Waste Department drawing number assigned to that drawing.
 - (i) Copies will be provided to the Department's Supervisor of Drafting & Graphic Services, Engineering, WEWPCC operations and EI maintenance. The Contract Administrator may receive and distribute copies and;
 - (ii) Submit the Final Record Drawings within one month of receipt of final comments from the Department.
 - (iii) In addition to four (4) complete sets of drawings and a digital copy, each station shall have two (2) hardboard laminated drawings of each stations single electrical line drawing supplied for maintenance use per D16.2(f)
 - (b) All sealed Construction documents produced for the Project are required to be updated to become sealed Record Drawings. The Record Drawings shall include all changes from the final construction Work;
 - (c) Final record drawings shall be sealed by a Professional Engineer with a P.Eng. stamp with tracked document revision history;
 - (d) Existing drawings that require superseding as a result of the project are to be completed per the Drawing Content Document (Appendix H) and submitted as part of final record documents;

- (e) Record drawings are to include all construction details and materials of the completed Works, including the following:
 - (i) All construction details;
 - (ii) Complete materials list for each individual component installed;
 - (iii) Date of installation of Works (Substantial Performance) and;
 - (iv) Installation Contractor.
- (f) Record drawings shall include and is required to complete record drawings per section D15:
 - (i) Sealed record drawings
 - (ii) Superseding of all existing drawings;
 - (iii) Drawing list and superseded drawing list;
 - (iv) Circuit breaker and protection settings;

D15.4 Each station shall be considered stand-alone and have its own record drawing requirements and deliverables per Section D15;

D15.5 The Proponent shall submit Record Drawings price as identified in item 9 on Form B: Fees.

D15.6 Record Drawings shall adhere to the Requirements for Drawings as described D6.4, D6.6, D9.14 and D15.

D16. PROJECT CLOSEOUT SERVICES

D16.1 Each station shall be considered standalone projects and have its own ARC Flash, commissioning, warranty O&M's, commissioning, asset list, drawings, training and other required closed out services and documents.

D16.2 Confirm and ensure complete turnover of Project Contract Administration documentation 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 and in accordance with D16.4;
- (b) Final approved submittals for Shop drawings, Record Drawings, operations and maintenance manuals, spare parts, photographs, etc.);
- (c) As coordinated with the Department's contact person and the Contractor, provide inspection of the completed Works to establish the Project milestones of Total Performance, Final Acceptance of the completed Project and issue total and Final Acceptance certificates to the Contractor.
- (d) Complete any additional documents of the completed mechanical, electrical, structural, and civil Works to the Department contact;
- (e) Coordinate with the Installation Contractor and Equipment Supplier to provide four (4) full hard copy sets of all Operation & Maintenance manuals to the City for all newly installed equipment and devices. A digital copy is to be provided through electronic transfer;
- (f) Four (4) hard board laminated 24"x36" record single line drawings shall be provided no later than 30 days after total performance per station. Two (2) drawings are to be electrical single lines, Two (2) are to be electrical single line with equipment ARC flash ratings and information stipulating the validity date (5 years from ARC flash report); Drawings are to be fixed on flood station walls in a retrievable manner;
- (g) Provide sealed Arc Flash Study report in accordance with (D10). The final arc flash report shall be sealed by an Engineer. Arc flash labels will be required to be installed on all Station electrical distribution equipment including (MCCs, transformers, panel boards, disconnect switches, motors, generators, etc.). MCCs will require and arc flash label on each bucket where 600 VAC is present;

- (h) Coordinate with the Installation Contractor and Equipment Supplier for all required site testing and commissioning services and;
- (i) Coordinate with the Installation Contractor and Equipment Supplier to provide training per D16.7

D16.3 Assist the Contractor in closing out all building applicable permits (building design summary, electrical, mechanical, structural, building occupancy, etc.) taken out for Construction work for each site. Each Consultant discipline Lead Engineer will need to complete and seal an individual Professional Certification Occupancy Letter.

D16.4 Operations & Maintenance (O&M) Manual

- (a) Review Contractor Operations & Maintenance (O&M) manual submissions for completeness. Advise the Contractor of any missing information.
- (b) Each tab shall include a section header page along with a section index page to include unique documents within each section along with number of pages for each document. Pages should be numbered as per each section (i.e. 5-1, 5-2, ..., 5-20).
- (c) The O&M shall include separate tabs for the following:
 - (i) Cover Page & Table of Contents;
 - (ii) Contractor and Consultant Contact Information;
 - (iii) Supplier list;
 - (iv) Warranty Details;
 - (v) Products and Shop Drawings;
 - (vi) Bill of Material Spare Parts & Tools;
 - (vii) Certified Factory Test Results;
 - (viii) Commissioning Reports & Forms;
 - (ix) Safe work and operational procedure with lockout for isolation, restoration and safe maintenance of station transformers;
 - (x) Operator & Maintenance Training Presentations.
 - (xi) Lessons Learned.
- (d) The O&M manual will be required to have separate electronic files for each section (tab) and be properly labelled (i.e. Section 1 – Contractor & Consultant Contact Information).
- (e) Once final O&M has been submitted and approved, ensure the Contractor provides four (4) hardcopy binders along with three (3) USB keys to the City. Coordinate with the Installation Contractor and Equipment Supplier to provide four (4) full sets of all Operation & Maintenance manuals to the City for all newly installed equipment and devices.

D16.5 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 required close-put documents for review.

- (a) The format for the provided materials may take multiple formats, but should be provided in format (spreadsheets, CAD drawings, doc, SKM, etc.) in an organized electronic filing system. All text is to be searchable in electronic documents.

D16.6 Safe Work and Operating procedures

D16.6.1 The consultant is to provide Safe Work and Operating Procedures for the work to be completed be incorporated into the final O&M documents. Each station shall have 3 procedure created. There shall be a procedure for:

- (a) Isolation of each Flood station transformers with lockout along with checks
- (b) Restoration of power to each Flood Station transformer along with checks
- (c) Creation of a Safe Work Procedure for testing of each Flood station transformer.

D16.6.2 Safe Work and operating Procedure are to use City provided templates.

D16.7 Training

D16.7.1 Coordinate with the Installation Contractor and Equipment Supplier to provide a minimum of one (1), one (1) hour on-site training session per station to provide instruction to City staff on the safe operation of all new equipment including recommended maintenance tasks and schedules. Training sessions shall be provided for electrical maintenance staff.

D16.7.2 Planning and scheduling of training sessions, review of training procedures and training documents are to be prepared by the Contractor;

D16.7.3 The Consultant is responsible for the overall packaging and quality assurance of the training program, although delivery of selected portions may be by the Contractor or subcontractor;

D16.7.4 Training materials to be submitted to the City for review and comment prior to the on-site training;

D16.8 Warranty Services

D16.8.1 Provide one (1) year warranty services tied to the date of Total Performance.

D16.8.2 The warranty services shall include but are not limited to the following:

- (a) provision of inspection services to performing a warranty inspection site visit approximately (1) month prior to warranty expiration. 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 (as requested);
- (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 Final Acceptance.

D16.9 Asset Data

- (a) The Consultant shall provide a comprehensive list of all equipment assets along with associated data based on the Guideline to Document Asset Registry. The list shall be in a spreadsheet in a format defined by the City for uploading into the City's Oracle Work and Asset Management (OWAM) system.
- (b) All equipment within the Asset Equipment List will need to include the following:
 - i. Equipment tag names and description;
 - ii. Manufacturer details (manufacturer, make, model, serial number and date of manufacturer);
 - iii. Sizes (weight, height, width, depth, etc.);
 - iv. Electrical specifications (voltage, amperage, horse power, RPM speed)
 - v. Certifications (CSA/cUL approval, NEMA rating, etc.);

D16.10 Attend the Project closeout meetings with the City to:

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

D16.11 Deliverables from Project Closeout for each station shall include, but not be limited to:

- (a) Operation & Maintenance Manuals including recommended preventative maintenance schedule for new equipment. Four (4) hard copy and one (1) in electronic format;
- (b) ARC flash report documents per section D9;
- (c) Four (4) copied of sealed 11"X17" record drawings in a binder;
- (d) Four (4) hard board laminated 24"x36" record single line drawings per D16.2(f)
- (e) Commissioning report
- (f) Training Materials;
- (g) Safe Work and Operating Procedures;
- (h) Final Asset Registry;
- (i) Final Construction Report in both hard copy and electronic file format;
- (j) End of warranty period site inspection, recommendations, and meeting minutes; and
- (k) Certificate of Acceptance for construction Contract(s).

D17. ADDITIONAL WORK ALLOWANCES

D17.1 The General Requirements for Additional Work Allowances are as follows:

- (a) The hourly rates of all Key Personnel and non-Key Personnel proposed for any Additional Work Allowances when defined and approved shall match the original Form P: Person Hours and rates. There will be no fee escalation allowed for yearly adjustments, promotions, etc. to be used for Additional Work Allowances.
- (b) If a member of the Consultant's Key Personnel or non-Key Personnel is not listed by name on Form P: Person Hours and rates, when that staff member is proposed for Work under the Additional Work Allowance, the Consultant shall follow the requirements as stated in B12.
- (c) The Consultant shall apply a maximum of ten (10) percent markup on all Work performed by a Sub Consultant.
- (d) Expenditures under the Additional Work Allowance must be authorized in writing by the Consulting Contract Administrator.
- (e) The Contract price will be adjusted by written order to provide for a difference between the amount of the Additional Work Allowances and the actual cost of the Work.
- (f) The City reserves the right to delete any or all of the Additional Work Allowances from the Contract if the Work intended to be covered by the Additional Work Allowances is not required, or if the Works intended are found to be more extensive than the provisional Additional Work Allowances.

D17.2 The Additional Work Allowances are to be used for engineering and design services that arise due to unforeseen conditions during the Project. When such Work arises, the Consultant will be required to prepare a concise Scope of Work and breakout cost Proposal, following requirements as defined in B10.2 and D17.1, in collaboration with the Consulting Contract

Administrator. The Proposal shall be submitted to the Consulting Contract Administrator for final approval. No Work shall start prior to written approval provided.

D18. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

- D18.1 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.
- D18.1.1 The Consultant 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.
- D18.1.2 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.

D19. UNFAIR LABOUR PRACTICES

- D19.1 Further to C3.2, the Consultant declares that in bidding for the Work and in entering into this Contract, the Consultant and any proposed Subconsultant(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.
- D19.2 The City of Winnipeg is committed and requires its Consultants and their Subconsultants, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.
- D19.3 Upon request from the Consulting Contract Administrator, the Consultant shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D19.4 Failure to provide the evidence required under D19.3, may be determined to be an event of default in accordance with C14.
- D19.5 In the event that the City, in its sole discretion, determines the Consultant to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Consultant shall pay to the City a sum specified by the Consulting Contract Administrator in writing ("Unfair Labour Practice Penalty"). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D19.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Consultant's violation of the above

requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City's reputation in the eyes of the public as a result of same.

D19.5.2 The Consultant shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D19.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Consultant.

- (a) The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Consultant of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

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 Consulting Contract Administrator with evidence thereof upon request.

D21. SAFE WORK PLAN

D21.1 The Consultant shall provide the Consulting Contract Administrator 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 C4.4(a) 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, Purchasing Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>

D22. INSURANCE

D22.1 The Consultant shall procure and maintain, at their own expense and cost, insurance policies with limits no less than those shown below.

D22.2 As a minimum, the Consultant shall, without limiting their obligations or liabilities under any other contract with the City, procure and maintain, at their 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 \$5,000,000.00 per claim and \$5,000,000.00 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 Consultants hired to perform geo technical drilling and sample collecting or closed-circuit television to procure and maintain, at their 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 their 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 Consulting Contract Administrator with a certificate(s) of insurance in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Services, but in no event later than the date specified in C4.4(a) 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 site Services until:
 - (a) the Consulting Contract Administrator 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
 - (a) the Safe work plan shall not prevent commencement of non-site services;
 - (iii) evidence of the insurance specified in D22.

- (b) the Consultant has attended a meeting with the Consulting Contract Administrator, or the Consulting Contract Administrator 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 May 24, 2024.

D24. CRITICAL STAGES

D24.1 The Consultant shall achieve critical stages of the Services for this Contract in accordance with the following requirements:

- (a) Final design for Flood Station upgrades completed and accepted by the City by October 23, 2024;
- (b) Phase 1
 - (i) Construction Tender for Flood Station upgrades closing by December 20, 2024;
 - (ii) Station upgrades must be installed, commissioned and operational by March 1, 2026 (total performance);
 - (a) All site work at Flood stations requiring BM Hydro power outages will not be permitted during station activation (typically March 1 – Oct 31) without a written request, inclusion of an OSS and approval. Some exceptions may include:
 - i. an approved alternate power source or;
 - ii. favorable river and weather accommodating a defined short duration;
 - (b) All site work effecting Lift stations (3) requiring MB Hydro power outages will not be permitted without a written request, inclusion of an OSS and approval. Outages are to be temporary in order to provide an alternate power source for 24/7 full capacity operation of the affected Lift station during required construction work effecting power.
 - (iii) Total Performance by March 1, 2026 and;
 - (iv) O&M's and record document are to be submitted for approval no more than 2 months after total performance.
 - (v) Final Operation & Maintenance Manuals along with sealed Record Documents no later than one (1) month after City review.
- (c) Phase 2
 - (i) Construction Tender for Flood Station upgrades closing by December 20, 2025;
 - (ii) Station upgrades must be installed, commissioned and operational by March 1, 2027 (total performance);
 - (a) All site work at Flood stations requiring MB Hydro power outages will not be permitted during station activation (typically March 1 – Oct 31) without a written request and approval. Some exceptions may include:
 - i. an alternate power source or;
 - ii. favorable river and weather accommodating a defined short duration;
 - (b) All site work effecting Lift station requiring MB Hydro power outages will not be permitted without a written request and approval. Outages are to be temporary in order to provide an alternate power source for 24/7 full capacity operation of the affected Lift station during required construction work effecting power.
 - (iii) Total Performance by March 1, 2027 and;
 - (iv) O&M's and record document are to be submitted for approval no more than 2 months after total performance;
 - (v) Final Operation & Maintenance Manuals along with sealed Record Documents no later than one (1) month after City review.
- (d) Phase 3
 - (i) Construction Tender for Flood Station upgrades closing by December 20, 2026;

- (ii) Station upgrades must be installed, commissioned and operational by March 1, 2028 (total performance);
 - (a) All site work at Flood stations requiring MB Hydro power outages will not be permitted during station activation (typically March 1 – Oct 31) without a written request and approval. Some exceptions may include:
 - i. an alternate power source or;
 - ii. favorable river and weather accommodating a defined short duration;
 - (b) All site work effecting Lift station requiring MB Hydro power outages will not be permitted without a written request and approval. Outages are to be temporary in order to provide an alternate power source for 24/7 full capacity operation of the affected Lift station during required construction work effecting power.
- (iii) Total Performance by March 1, 2028 and;
- (iv) O&M's and record document are to be submitted for approval no more than 2 months after total performance;
- (v) Final Operation & Maintenance Manuals along with sealed Record Documents no later than one (1) month after City review.

D25. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

- D25.1 The City acknowledges that the schedule for this Contract may be impacted by Supply Chain Disruption. Commencement and progress of the Services shall be performed by the Consultant with due consideration to delivery requirements and schedule identified in the Contract, in close consultation with the Consulting Contract Administrator.
- D25.2 If the Consultant is delayed in the performance of the Services by reason of the Supply Chain Disruption, 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 a Supply Chain Disruption will affect the start date. The Consultant shall provide sufficient evidence that the delay is directly related to a Supply Chain Disruption, including but not limited to evidence related to availability of staff, ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate.
- D25.4 For any delay related to Supply Chain Disruption 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 Consulting Contract Administrator.
- D25.6 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Consulting Contract Administrator, shall be documented in accordance with C8.

MEASUREMENT AND PAYMENT

D26. INVOICES

- D26.1 Further to C11, the Consultant shall submit an invoice for each portion of Work performed. 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
Send Invoice Inquiries to CityWpgAP-INQUIRIES@winnipeg.ca

D26.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) the City's Project number and title: "S-1301 (769-2023) – Transformer Remediation Work for Flood Stations"
- (c) The Consultant's Contract Administrator's name;
- (d) date of delivery;
- (e) delivery address;
- (f) type and quantity of work performed;
- (g) the amount payable with GST and MRST shown as separate amounts; and
- (h) 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.

D28. PAYMENT SCHEDULE

D28.1 Further to C12, payment shall be in accordance with the following payment schedule and supersede form B: Fees:

- (a) Payment for Record Drawings will be as Follows:
 - i. 50% Form B Record Documents upon submittal and acceptance of red-line drawings and raw commissioning records;
 - ii. 50% Form B Record Documents upon submittal and acceptance of the Final Record documents.
- (b) The final Five (5) percent payment of contracted value will be paid upon delivery and acceptance of Operation and Maintenance (O&M) manuals, record drawings, training documents, training sessions provided, submittal of lessons learned.

DISPUTE RESOLUTION

D29. DISPUTE RESOLUTION

D29.1 If the Consultant disagrees with any opinion, determination, or decision of the Consulting Contract Administrator, the Consultant shall act in accordance with the Consulting Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D29.

D29.2 The entire text of C17.4 is deleted, and amended to read: "Intentionally Deleted"

D29.3 The entire text of C17.5 is deleted, and amended to read:

- (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Consultant must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit their written Appeal Form, in the manner and format set out on the City's Purchasing Website, to the Chief Administrative Officer, and to the

Consulting Contract Administrator. The Consultant may not raise any other disputes other than the Disputed Matter in their Appeal Form.

- D29.4 Further to C17, prior to the Consulting Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Consultant disagrees with any opinion, determination, or decision of the Consulting Contract Administrator ("Dispute"):
- (a) In the event of a Dispute, attempts shall be made by the Consulting Contract Administrator and the Consultant's equivalent representative to resolve Disputes within the normal course of project dealings between the Consulting Contract Administrator and the Consultant's equivalent representative.
 - (b) Disputes which in the reasonable opinion of the Consulting Contract Administrator or the Consultant's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process consisting of, at a minimum, the position levels as shown below and the equivalent Consultant representative levels:
 - (i) The Consulting Contract Administrator;
 - (ii) Supervisory level between the Consulting Contract Administrator and applicable Department Head;
 - (iii) Department Head.
- D29.4.1 Names and positions of Consultant representatives equivalent to the above City position levels shall be determined by the Consultant and communicated to the City at the pre-commencement or kick off meeting.
- D29.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.
- D29.4.3 Both the City and the Consultant agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.
- D29.4.4 If the Dispute is not resolved to the City and Consultant's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D29.4.3, as extended if applicable, has elapsed, the Consulting Contract Administrator will issue a Final Determination as defined in C1.1(dd), at which point the parties will be governed by the Dispute Resolution process set out in C17.

THIRD PARTY AGREEMENTS

D30. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D30.1 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.
- D30.2 Further to D30.1, in the event that the obligations in D30 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.
- D30.3 For the purposes of D30:
- (a) "**Government of Canada**" includes the authorized officials, auditors, and representatives of the Government of Canada; and
 - (b) "**Government of Manitoba**" includes the authorized officials, auditors, and representatives of the Government of Manitoba.

D30.4 Modified Insurance Requirements

D30.4.1 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.

D30.4.2 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.

D30.4.3 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.

D30.4.4 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D30.5 Indemnification By Consultant

D30.5.1 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.

D30.5.2 The Consultant agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:

- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
- (b) any damage to or loss or destruction of property of any person; or
- (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;

D30.5.3 in relation to this Contract or the Work.

D30.6 Records Retention and Audits

D30.6.1 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.

D30.6.2 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 D30.6.1 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.

D30.7 Other Obligations

- D30.7.1 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.
- D30.7.2 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.
- D30.7.3 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.
- D30.7.4 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.
- D30.7.5 The Consultant represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D30.7.6 The Consultant represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Consultant or of a Subconsultant, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Consultant or a Subconsultant concerning the Work.

- APPENDIX A – EXISTING SINGLE LINE DRAWINGS**
- APPENDIX B – SITE PICTURES**
- APPENDIX C – DEFINITION OF PROFESSIONAL CONSULTANT SERVICES**
- APPENDIX D – TAG NAMING STANDARD**
- APPENDIX E – E&I STANDARDIZATION SUMMARY**
- APPENDIX F – CREATE SAFETY MANAGEMENT DOCUMENTS**
- APPENDIX G – PROJECT DOCUMENT NUMBERING STANDARD**
- APPENDIX H – DRAWING CONTENT**