



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 746-2008

510 MAIN STREET DATA CENTRE UPGRADE

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 510 MAIN STREET DATA CENTRE UPGRADE

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, December 3, 2008.

B2.2 Proposals determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site at 09:00 am on November 20 2008 to provide Bidders access to the Site.

B3.2 Attendance is strongly recommended. The Bidder is advised that access to the site is limited. Bidders are to meet in front of the elevators on the main floor of 510 Main Street, Administration Building. Bidders are requested to inform the Contract Administrator with the names of the people who will participate in the site visit at least one day in advance.

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

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the proposal, or is unsure of the meaning or intent of any provision therein, the Bidder shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B4.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.

B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B4.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B4.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator.

B5.2 The Bidder 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 Contract Administrator.

B6. ADDENDA

B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.

B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

B6.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division internet site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

B7. SUBSTITUTES

B7.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.

B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
- (c) identify any anticipated cost or time savings that may be associated with the substitute;
- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
- (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.

B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his 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.

- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B7.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.1.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B7.10 Notwithstanding B7.2 to B7.9 and in accordance with B8.5, deviations to terms and conditions inconsistent with the Proposal document shall be evaluated in accordance with B17.1(a).

B8. PROPOSAL SUBMISSION

- B8.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal;
 - (b) Form B: Prices;
 - (c) Experience
 - (i) Company Background including:
 - 1. a brief history of your company (e.g. years since founding, purpose of company, milestones, associations and mergers)
 - 2. company's strengths and key offerings?
 - 3. business conducted with the City in the last 3 years? If yes, please list the City departments and respective City representatives. Include a brief description of the scope of work for each engagement.
 - 4. Contracts with other municipalities for Work of similar scope of value.
 - (ii) Legal Actions
 - 1. During the past 5 years, has there been any litigation or arbitration against your company or proposed sub-contractors for similar projects in which it was alleged that your company or proposed subcontractors failed to perform under a contract, breached a contract and/or performed work negligently. If yes, please explain (give appropriate level of non-confidential detail.)
 - (iii) Personnel
 - 1. How many employees are in your company?
 - 2. How many employees have specific data center experience?
 - 3. Whom do you foresee working on this data center project?
 - 4. What percentage of their time will be dedicated to this project?
 - (iv) Technical Expertise
 - 1. Are you a design/build company? If yes, please elaborate.
 - 2. What in-house services does your Company provide?
 - 3. Will you be augmenting your design/build services by establishing an alliance with one or more other providers; e.g. via sub-contracting or partnering with another supplier? If yes, please elaborate.
 - 4. Describe your subcontractors, alliance members and partners relationships with the local jurisdictions (Winnipeg).
 - 5. Do you have the resources to begin a project of our size at the time we specify (4th Quarter, 2008)?

6. Do you have alliances and partnerships with major equipment suppliers? If yes, please list the nature of the agreement and how it would benefit this project.
- (v) Availability
1. How many data center projects are you actively working on and what stage are they in (design vs. build)?
 2. What barriers may exist that would prevent you from being able to meet the project timeframes?
 3. Describe the approaches and controls you would use to ensure that the project timeframes are achieved (including all sub-contractors and supplier deliverables)
- (vi) Design/Build Experience
1. How many data centers have you upgraded in the last 3 years while the data center was still active (24hours/7 days a week)? (Please list with the approximate size (sq. ft., megawatt, kw/sq. ft.).
 2. For each project, describe your level of involvement.
 3. For each Data Center Project what percentages of your design/build projects have missed baseline estimates for cost, schedule, risk, or quality?
 4. List your key proposed personnel and their level of experience in years specific to data centers for Design and Build.
 5. Please provide references and include name, title, address, and phone number for a minimum of 3 data center upgrade projects (that we are permitted to contact).
 6. Describe problems you would expect to experience on a retrofit project with existing occupants and operating mission critical systems.
 7. What have been some of your major key learning's from past design/build experience?
- (vii) Value Improving Practices
1. What Value Improving Practice can you offer upgrading an existing and active data center?
 2. What value improving practices can you offer in each of the following areas:
 3. Data Center layout
 4. Mechanical Cooling
 5. Electrical/Power Distribution
 6. Cabling & Networking
- (viii) Project Management Structure
1. Describe your organization structure for the project team, during both design and construction.
 2. Will you have a dedicated Project Manager assigned to this Project? Please elaborate on this role.
 3. How will design and build phases of project be managed?
 4. Describe how you will integrate the client into the process.
 5. Describe client's level of review of design specification.
 6. Describe your process to resolve design/construction related issues with the client.
- (ix) Safety and Environmental Issues
1. Do you have safety programs within your company? If yes, please describe them in relation to this project. (refer to B11.7)
 2. Does this include local environmental expertise?
 3. Describe the safety programs of the major subcontractors that you would consider using for this project?
 4. Describe your approach to working on an operating site, in a building with professional personnel, around operating mission critical systems.
 5. Describe your procedures for handling hazardous materials including loading, unloading, and proper storage facilities (with emphasis on reducing pollution and protecting personnel).
 6. Describe your waste management plan for the proper handling of waste typically generated by the products and services you provide.
 7. Describe the approaches and controls you would use to ensure that the project timeframes are achieved (including all sub-contractors and supplier deliverables)

- (d) Proposed Solution (including completion timeframe & Indemnification) in accordance with E2 and E3;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Proposal shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B8.3.1 Bidders should submit one (1) unbound original (marked "original") and four (4) copies.
- B8.4 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Proposal document, including the General Conditions, will be evaluated in accordance with B17.1(a).
- B8.6 The Proposal should be submitted enclosed and sealed in an envelope clearly marked with the RFP number and the Bidder's name and address.
- B8.6.1 Samples or other components of the Proposal which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the RFP number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Proposal Submission.
- B8.7 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B8.8 Proposals shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B9. PROPOSAL

- B9.1 The Bidder shall complete Form A: Proposal, making all required entries.
- B9.2 Paragraph 2 of Form A: Proposal shall be completed in accordance with the following requirements:
 - (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Proposal.
- B9.4 Paragraph 10 of Form A: Proposal shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (d) if the Bidder is carrying on business under a name other than his 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.

B9.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.

B9.5 If a Proposal is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Proposal and the Contract, when awarded, shall be both joint and several.

B10. PRICES

ALTERNATIVE 1

B10.1 The Bidder shall state the lump sum price in Canadian funds for the Work on Form B: Prices.

B10.2 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

ALTERNATIVE 2

B10.3 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.4 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. QUALIFICATION

B11.1 The Bidder shall:

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

B11.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City a list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt/debar.stm>.

B11.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and

- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba);

B11.4 The Bidder shall provide, in his Proposal:

B11.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B11.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11.7 Further to B11.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>)

B11.8 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B11.9 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B12. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

B12.1 Proposals will not be opened publicly.

B12.2 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

B12.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential, however the Bidder is advised that any information contained in any Proposal may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B12.4 Following the award of Contract, a Bidder will be provided with information related to the evaluation of his submission upon written request to the Contract Administrator.

B13. IRREVOCABLE OFFER

B13.1 The Proposal(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Proposal.

B13.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Bidders and these Bidders shall be bound by their offers on such Work until a

Contract for the Work has been duly executed and the performance security furnished as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 9 of Form A: Proposal.

B14. WITHDRAWAL OF OFFERS

- B14.1 A Bidder may withdraw his Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B14.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.
- B14.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Bidder's authorized representatives named in Paragraph 10 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.
- B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Proposal until after the Submission Deadline has elapsed;
 - (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Bidder's authorized representatives named in Paragraph 10 of Form A: Proposal; and
 - (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Proposal withdrawn.
- B14.2 A Bidder who withdraws his Proposal after the Submission Deadline but before his offer has been released or has lapsed as provided for in B13.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B15. INTERVIEWS

- B15.1 The Contract Administrator may, in his sole discretion, interview Bidders during the evaluation process. Bidders should be prepared to provide a formal presentation of their proposal as part of the evaluation process.

B16. NEGOTIATIONS

- B16.1 The City reserves the right to negotiate details of the Contract with Bidders. Bidders are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B16.2 The City may negotiate with the Bidders submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Bidders without being obligated to offer the same opportunity to any other Bidders. Negotiations may be concurrent and will involve each Bidder individually. The City shall incur no liability to any Bidder as a result of such negotiations.
- B16.3 If, in the course of negotiations, the Bidder amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Bidder from the Proposal as originally submitted.

B17. EVALUATION OF PROPOSALS

- B17.1 Award of the Contract shall be based on the following evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Request for Proposal or acceptable deviation therefrom:

- (i) mandatory requirements (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11:
 - (i) mandatory qualifications (pass/fail);
 - (c) Experience 30%
 - (d) Total Bid Price for Alternative 1 or Alternative 2 30%
 - (e) Proposed Solution (including completion timeframe & Indemnification) 40%
 - (f) economic analysis of any approved alternative pursuant to B7;
- B17.2 Further to B17.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B17.3 Further to B17.1(b), the Award Authority shall reject any Proposal submitted by a Bidder who does not demonstrate, in his Proposal or in other information required to be submitted, that he is responsible and qualified.
- B17.4 Further to B17.1(c), Experience shall be evaluated with a weighting on 30 points out of a total of 100 possible points. As such, the most experienced Bidder in accordance with B8.1(c) shall receive the full 30 points, and the second most experienced Bidder and subsequent Bidders shall be pro-rated accordingly.

ALTERNATIVE 1

- B17.5 Further to B17.1(d), the Total Bid Price shall be the lump sum price shown on Form B: Prices.
- (a) if the lowest evaluated responsive Proposal submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the lump sum price bid; or
 - (b) if the lowest evaluated responsive Proposal submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the City will evaluate Alternative 2.

ALTERNATIVE 2

- B17.6 Further to B17.1(d), the Total Bid Price shall be the sum of the quantities multiplied by the amount for each item shown on Form B: Prices adjusted, if necessary, as follows:
- (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the City will base the award on Item 1. The City will select from Items 2 to 8 in order to achieve the budgetary provision for the Work of the Contract.
- B17.6.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the amount for each item, the sum of the quantities multiplied by the amount for each item shall take precedence.
- B17.6.2 The Total Bid Price shall be evaluated with a weighting on 30 points out of a total of 100 possible points. As such, the lowest Bidder shall receive the full 30 points, and the second lowest Bidder and subsequent Bidders shall be pro-rated accordingly.
- B17.7 Further to B17.1(e), the Proposed Solution, including completion timeframe and indemnification shall be evaluated with a weighting on 40 points out of a total of 100 possible points. As such, the most advantageous proposal solution shall receive the full 40 points, the second most advantageous proposal solution and subsequent shall be pro-rated accordingly.
- B17.8 Notwithstanding B10, the Bidder is required to bid on all alternatives.
- B17.8.1 The City shall have the right to choose the alternative that is in its best interests.

B18. AWARD OF CONTRACT

- B18.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B18.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Proposals are determined to be responsive.
- B18.2.1 Without limiting the generality of B18.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Proposal is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B18.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the most advantageous offer.
- B18.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Proposal upon written request to the Contract Administrator.
- B18.4 Notwithstanding C4, the City will issue a purchase order to the successful Bidder in lieu of the execution of a Contract.
- B18.5 The Contract Documents, as defined in C1.1(n) (ii), in their entirety shall be deemed to be incorporated in and to form a part of the purchase order notwithstanding that they are not necessarily attached to or accompany said purchase order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.

C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at http://www.winnipeg.ca/matmgt/gen_cond.stm.

C0.2 A reference in the proposal to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of Data Center Upgrade. at 510 Main Street, Winnipeg, Manitoba

D2.2 The major components of the Work are as follows:

- (a) Design and build of high density computing area, low density cooling replacement, UPS implementation and remediation of identified data center issue
- (b) All project management and on site project supervision
- (c) Provision of all required materials (construction and equipment including cooling units and UPS)
- (d) Permits and engineering drawings to meet Manitoba construction requirements

D3. DEFINITIONS

D3.1 Where used in these General Conditions and in the other documents forming part of the Contract:

- (a) "**prefer**" indicates a desirable action or feature which will be evaluated on a relative scale;

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is:

Glen Cottick

The City of Winnipeg
Internal Services
6-510 Main Street
Winnipeg MB R3B 1B9

Telephone No. (204) 986-2611

Facsimile No. (204) 986-5966

D4.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. CONTRACTOR'S SUPERVISOR

D5.1 Further to C6, the Contractor shall employ and keep on the Work, at all times during the performance of the Work, a competent supervisor and assistants, if necessary, acceptable to the Contract Administrator. The supervisor shall represent the Contractor on the Site. The supervisor shall not be replaced without the prior consent of the Contract Administrator unless the supervisor proves to be unsatisfactory to the Contractor and ceases to be in his employ.

D5.2 Before commencement of Work, the Contractor shall identify his designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

- D5.2.1 Further to C5, Contract Administrator may give instructions or orders to the Contractor's supervisor and such instructions or orders shall be deemed to have been given to the Contractor.

D6. CONFIDENTIALITY AND OWNERSHIP OF INFORMATION

- D6.1 Information provided to the Contractor by the City or acquired by the Contractor during the course of the Work is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator.
- D6.2 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City. The Contractor shall not disclose or appropriate to its own use, or to the use of any third party, all or any part thereof without the prior written consent of the Contract Administrator.
- D6.3 The Contractor shall not make any statement of fact or opinion regarding any aspect of the Contract to the media or any member of the public without the prior written authorization of the Contract Administrator.

D7. NOTICES

- D7.1 Notwithstanding C23.2.2, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:
- The City of Winnipeg
Chief Financial Officer
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174

D8. INDEMNITY

- D8.1 Notwithstanding C17, the Contractor shall indicate in their Proposal which one of the following options with respect to Indemnity will apply. If the Proposal is silent, then C17 will be deemed to apply.
- (a) The Contractor should save harmless and indemnify the City in accordance with C17 of the General Conditions;
 - (b) The Contractor shall save harmless and indemnify the City in accordance with C17 of the General Conditions in the amount of the Contract value;
 - (c) The Contractor shall save harmless and indemnify the City in accordance with C17 of the General Conditions in the amount of two million dollars (\$2,000,000), plus a minimum of twice the Contract value.

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

- D9.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D10. SAFE WORK PLAN

- D10.1 The Contractor shall provide the 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 C4.1 for the return of the executed Contract.
- D10.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt/safety/default.stm> .
- D10.3 All Bidders are advised that there is a known presence of asbestos in the facility as per the documentation and drawing attached. It is not anticipated that the Work of this Contract will be affected by the asbestos.
- D10.4 If the Contractor encounters asbestos or any other hazardous material, they must stop work, secure the area and contact the Contract Administrator immediately.

D11. INSURANCE

- D11.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;
 - (b) if required, automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00), to remain in place at all times during the performance of the Work;
- D11.2 Deductibles shall be borne by the Contractor.
- D11.3 The Contractor shall provide the 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 Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D11.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.
- D11.5 The City shall have the right to alter the limits and/or coverages as reasonably required from time to time during the continuance of this agreement.

D12. PERFORMANCE SECURITY

- D12.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:
- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of one hundred percent (100%) of the Contract Price; or
 - (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of one hundred percent (100%) of the Contract Price; or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of one hundred percent (100%) of the Contract Price.

D12.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D12.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award and prior to the commencement of any Work on the Site.

D13. SUBCONTRACTOR LIST

D13.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D14. SECURITY CLEARANCE

D14.1 Each individual proposed to perform Work under the Contract shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his place of residence.

D14.2 Prior to the commencement of any Work, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Criminal Record Search Certificate obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform the Work.

D14.3 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate indicates any convictions or pending charges related to property offences or crimes against another person, will not be permitted to perform any Work unless authorized by the Contract Administrator in consultation with Winnipeg Police Service.

D14.4 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.

D14.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform any Work unless authorized by the Contract Administrator in consultation with Winnipeg Police Service.

SCHEDULE OF WORK

D15. COMMENCEMENT

D15.1 The Contractor shall not commence any Work until he is in receipt of a notice of award from the City authorizing the commencement of the Work.

D15.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D9;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D10;
 - (iv) evidence of the insurance specified in D11;
 - (v) the performance security specified in D12;
 - (vi) the Subcontractor list specified in D13; and
 - (vii) the security clearances specified in D14.

- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D15.3 The Contractor shall commence the Work on the Site within seven (7) Calendar Days notice of the award of Contract.

D15.4 The City intends to award this Contract by December 19, 2008.

D15.4.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D16. CRITICAL STAGES

D16.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Completion of detailed design and submission of permit ready drawings within six (6) weeks of the commencement of the work as stated in D15.3.
- (b) Completion of remainder of deliverables within twelve (12) weeks of completion of D16.1.a

D17. SUBSTANTIAL PERFORMANCE

D17.1 The Contractor shall achieve Substantial Performance within eighteen (18) weeks of the commencement of the Work as specified in D15.

D18. TOTAL PERFORMANCE

D18.1 The Contractor shall achieve Total Performance within eighteen (18) weeks of the commencement of the Work as specified in D15.

D18.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. This shall include the completion of all commissioning scripts to the satisfaction of the Contract Administrator. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D18.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

CONTROL OF WORK

D19. JOB MEETINGS

D19.1 Regular weekly job meetings will be held at the Site (or remotely at the Contract Administrators discretion). These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D19.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D20. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D20.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D21. SAFETY

D21.1 Further to C6, the Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.

D21.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.

D21.3 The Contractor shall do whatever is necessary to ensure that:

- (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
- (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;
- (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;
- (d) adequate sanitation measures are taken and facilities provided with respect to the Work.
- (e) fire hazards in or about the Work are eliminated;

MEASUREMENT AND PAYMENT

D22. PAYMENT

D22.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D23. PAYMENT SCHEDULE

D23.1 Further to C12, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

D23.2 The City will:

- (a) Pay 75% progress payments during the Contract;
- (b) Pay 25% upon achieving Total Performance.

WARRANTY

D24. WARRANTY

D24.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D24.2 Bidder should provide details on elements of warranty coverage for all components of proposal including:

- (a) manufacturer's warranty coverage
- (b) additional warranty services provided through bidder

- (c) hours of support and response times
- (d) any exceptions to on-site servicing
- (e) any regular or periodic maintenance (required or recommended) that is not covered under warranty

D24.2.1 For the purpose of Performance Security, the warranty period shall be one (1) year.

D24.3 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D24.3.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND
(See D12)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

RFP NO. 746-2008

510 MAIN STREET DATA CENTRE UPGRADE

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D12)

(Date)

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

RE: PERFORMANCE SECURITY – RFP NO. 746-2008

510 MAIN STREET DATA CENTRE UPGRADE

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding in the aggregate

_____ Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
	Data Centre Health Check Findings
	Asbestos Inventory Control Sheet
	510 Main - Data Centre Layout
0510MN07	Seventh Floor – Floor Plan
0510MN07/A9	Seventh (Penthouse) & Intermediate Floor Plan

GENERAL REQUIREMENTS

E2. FUNCTIONAL REQUIREMENTS

- E2.1 Upgrade to existing data centre (cooling and power distribution) to support blade equipment as follows:
- (a) Ability to support cooling and power distribution for 120 blade devices
 - (b) Blades density can be limited to one blade enclosure (approximately 15 blades) per standard rack footprint
 - (i) Would prefer a solution that allows for higher density (up to four blade enclosures per standard rack footprint)
 - (c) Blades can be distributed across as much as 500 square feet (inclusive of hot/cold aisle space)
 - (i) Would prefer a design that allows for higher density
 - (d) In-row cooling approach is desirable (to provide separation of high density cooling load from low density cooling load)
 - (i) APC in-row cooling units preferred
 - (e) Heat removal technology or any other methodologies can be part of the solution
 - (f) Provide electrical service for blade equipment
 - (g) Design should be modular/scalable enough to grow as needed at minimal incremental cost
 - (i) 50% workload growth with minimal additional cost
 - (ii) Installation of required components to allow for future growth
 - (h) Air flow modeling for cooling approach if not in-row cooling
- E2.2 Upgrade of existing aging low density cooling to ensure acceptable reliability and serviceability
- (a) Replacing 4 cooling units with appropriate replacement units

- (b) Expect smaller number of units given workload shifting to high density equipment
 - (c) Replacement of a subset of existing cooling units is acceptable if it provides sufficient improvements in reliability to overall cooling solution
 - (d) Design can include some physical redistribution of existing computing load to aid in cooling efficiency
 - (e) Ability to support cooling of 40 low density servers, storage and network devices
 - (i) Should support 50% workload growth with minimal additional cost
 - (f) Current low density computing load of 54kW
 - (i) Current low density server workload being reduced by approximately 70%
 - (i) 120 tower servers will be reduced to 40 tower servers
 - (ii) Current low density storage workload being increasing by approximately 100%
 - (i) 121 TB of raw storage (559 disks in 5 racks) will become 259 TB (678 disks in 5 racks)
 - (iii) No significant change expected in network equipment workload
 - (g) There is ~2500 square feet of raised floor in data centre
 - (h) Air flow modeling for low density replacement
- E2.3 Implementation of an additional UPS to work in conjunction with existing 80KVa unit to meet power needs of stated workload
- (a) Includes implementation of redundant distribution system for blade server and low density workload
 - (b) Current UPS environment is 80KVa Powerware unit and proposed UPS solution should work in parallel with existing UPS environment
- E2.4 The following elements are included in Alternative 1 or will be selected in Alternative 2 in order to achieve the budgetary provision for the Work of the Contract.
- (a) Remediation of issues identified in Data Centre Health Check Findings
 - (i) Electrical cabling material issues.
 - (ii) Unused cabling issues.
 - (iii) Electrical branch circuit labelling issues.
 - (iv) Electrical receptacle issues.
 - (v) Raised floor grounding issues.
 - (vi) Raised floor exposed core and stringer issues
 - (vii) Raised floor air leakage issues
- E2.5 Prefer the most efficient cooling approach possible (that can be achieved within project budget)
- (a) Preference towards water based cooling (for efficiency and high density support)
 - (b) Tie into building chiller is an option
 - (c) The proposed cooling solution should utilize a refrigerant other than R-22 if possible
 - (d) Interested in free cooling and/or heat recovery capabilities
 - (e) Include power savings estimates of proposed cooling solution compared to existing cooling
- E2.6 Proposed solution should address the future deployment of 10GBe within the data centre
- (a) Describe how 10GBe cabling would be accomplished with proposed solution
- E2.7 Bidder is responsible to ensure proposed solution integrates with planned GenSet and Fire Suppression projects. Additional information regarding this projects can be obtained during site visit.

- E2.8 Proposed solution should have minimal risk or impact to live data centre
- (a) Identify elements of proposed solution considered to be high risk to ongoing operations
 - (b) Provide details on the specific steps to be taken to minimize the risks to ongoing operations during implementation
 - (c) Provide details on any planned outages or data centre disruptions that are required as part of the proposed solution
- E2.9 Redundancy in solution
- (a) Provide details on the level of redundancy in all elements of proposed solution in relation to Uptime Institute tiers
 - (b) We would prefer the proposed solution to provide the highest levels of redundancy possible within the project budget without unduly exceeding the redundancy levels available from the related environmental components
- E2.10 Provide single line drawings for all proposed solutions (including computing equipment placement) as part of proposal submission
- E2.11 Provide complete details on warranty coverage for all components of proposed solutions (including manufacturer's warranty, any warranty extensions being proposed and on-site support provided within warranty)
- E2.12 Building systems are currently monitored by METASYS (Johnson Controls) system. Proposed HVAC and power solutions should be integrated into METASYS monitoring environment with appropriate alarms and escalation in the event of disruption of functionality.
- E2.13 Commissioning Scripts – bidders to provide the following (please describe how this will be addressed in your proposal submission):
- (a) Factory testing reports re the major components of the system, such as the AC units, UPS units etc... shall be supplied to COW before the installation of the units.
 - (b) Detailed script to test the unit as per the manufacturers recommendations and/or the best practices shall be submitted to COW and adhered to when testing the major components of the system.
 - (c) Detailed script to test the entire system (end to end) shall be submitted to COW and adhered to when testing the entire system as a whole.
 - (d) All tabulated test results shall be submitted as part of the "Operations report" of the entire system
- E2.14 Must adhere to Building Services equipment placement requirements
- (a) All designs and resulting build activities will be subject to review and approval by facility operating representatives and building "owner" representatives and/or their agents.
- E2.15 The Bidder shall submit one of the 3 options for indemnity in accordance with D8.

E3. DELIVERABLES

- E3.1 Upgrade of existing data centre
- (a) Cooling and power distribution to support blade devices
 - (b) Replacement of low density cooling
 - (c) Implementation of additional UPS
 - (d) Remediation of identified data centre issues from data centre health check findings
- E3.2 Commissioning script sign-offs and associated documentation

- E3.3 Required training on proposed solution and five copies of all O/M manuals (including sequence of operations document including all design specifications for HVAC solution)
- E3.4 All project management and on site project supervision
- E3.5 Provision of all required materials (construction and equipment including cooling units and UPS)
- E3.6 Permits and engineering drawings to meet Manitoba construction requirements
- E3.7 As built drawings for all elements of the proposed solution. Drawings should be provided in the form of one electronic copy in Autocad format and three reproducible original hardcopies annotated "As Built" and stamped by designer of record.