



**4059P - Water, Sanitary & Drainage Modelling for the
Proposed 2041 Official Community Plan**

1. Introduction

The City of Richmond proposes to engage the services of a Civil Engineering Consultant (the “Consultant”) to provide water, sanitary and drainage modelling services to support the 2041 Official Community Plan (the OCP”).

The objective of this request for proposal is to provide the City with qualified proponents capable of carrying out the work herein defined. The subsequent proponent submissions will form the basis for evaluation, interview and selection.

2. Definitions

2.1 Throughout this Request for Proposal the following definitions apply:

- a) “BC Bid” means the electronic tendering service maintained by the Province of British Columbia located online at www.bcbid.ca, or any replacement website;
- b) “City” means the City of Richmond, British Columbia;
- c) “Contract” means the written agreement resulting from this Request for Proposal executed by the City and the Vendor for the Work;
- d) “Lead Proponent” is the Proponent whose Proposal, as determined through the evaluation criteria described in this RFP, provides the best overall value in meeting the requirements of the RFP, and with whom a Contract will be considered;
- e) “Proposal” means a proposal submitted by a Proponent in response to this Request For Proposal;
- f) “Proponent” means an individual or a company that submits, or intends to submit, a Proposal in response to this Request for Proposal;
- g) “RFP” or “Request for Proposals” means this request for proposals, inclusive of all appendices and any addenda that may be issued by the Owner;

- h) “Shall”, “Will” and “Must” means a requirement that must be met in order for a Proposal to receive consideration;
- i) “Should” or “May” means a requirement having a significant degree of importance to the objectives of the Request for Proposal which will be considered in analysing the Proposals;
- j) “Submission” means a proposal submitted by a Proponent in response to this RFP;
- k) “Successful Proponent” means the same as “Vendor”
- l) “Vendor” means the Successful Proponent to this Request for Proposal who enters into a written Contract with the City to perform and to oversee the Work and
- m) “Work” means the provision of all labour, services, material and equipment, and any action as necessary for the Preferred Proponent to complete and perform its obligations in accordance with the terms and conditions of the Contract.

3. Submission Details

- 3.1 Three (3) copies of proposals marked **“Water, Sanitary and Drainage Modelling for the proposed 2041 Official Community Plan - Contract 4059P”** addressed to the Purchasing Section, will be received at the Information Counter, Main Floor, Richmond City Hall, 6911 No. 3 Road, Richmond BC V6Y 2C1, until **12:00pm PST, Thursday, November 25, 2010**. Submissions received after this time will be returned to the sender.

4. Pre-Bid Meeting

4.1 Pre-Bid Meeting will be held:

Date: November 16, 2010

Time: 2:00pm – 4:00pm local time

Location: M 1.002 Meeting House, Richmond City Hall, 6911 No. 3 Road

5. Enquiries

5.1 Clarification of terms and conditions of the proposal process shall be directed to:

Purchasing

Sumita Dosanjh

Buyer II - Contracting Specialist

E-mail: purchasing@richmond.ca

Purchasing Section

City of Richmond

5.2 Enquiries will be received up end of business day November 18, 2010.

5.3 The City, its agents and employees shall not be responsible for any information given by way of oral or verbal communication.

5.4 The City will only respond to questions that are submitted in writing. Any questions that are received and answered by City of Richmond Staff that affect the Proposal Process, any interpretation of, additions to, deletions from, or any other corrections to the Request for Proposal document, may be issued as written addenda by the City of Richmond. It is the sole responsibility of the potential Proponents to check with the following websites to ensure that all available information has been received prior to submitting a proposal:

a) City of Richmond: <http://www.richmond.ca/busdev/tenders.htm>

b) BC Bid: <http://www.bcbid.gov.bc.ca/open.dll/welcome?language=En>

6. Terms of this Request for Proposal

6.1 Proposals shall be open for acceptance for 90 days following the submission closing date.

- 6.2 The City reserves the right to cancel this Request for Proposal for any reason without any liability to any proponent or to waive irregularities at its own discretion.
- 6.3 Proposals may be withdrawn by written notice only provided such notice is received at the office of the City's Purchasing Section prior to the date/time set as the closing time for receiving proposals.
- 6.4 Except as expressly and specifically permitted in these instructions, no Proponent shall have any claim for any compensation of any kind whatsoever, as a result of participating in the RFP, and by submitting a proposal each proponent shall be deemed to have agreed that it has no claim.
- 6.5 Proponents are advised that the City will not necessarily accept any Proposal and the City reserves the right to reject any or all Proposals at any time without further explanation or to accept any Proposal considered advantageous to the City.
- 6.6 A Proposal which contains an error, omission, or misstatement, which contains qualifying conditions, which does not fully address all the requirements of this RFP, or which otherwise fails to conform to the requirements in this RFP may be rejected in whole or in part by the City at its sole discretion.
- 6.7 The City may waive any non-compliance with the RFP, specifications, or any conditions including the timing of delivery of anything required by the RFP and may, at its sole discretion, elect to retain for consideration Proposals which are non-conforming, which do not contain the content or form required by the RFP or because they have not complied with the process for submission set out herein.
- 6.8 The City may choose, at its sole discretion, to proceed with all of the components of the Work, none of the components or selected components of the Work.
- 6.9 All Proposals will remain confidential, subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia.

7. Negotiations

- 7.1 The award of the contract is subject to negotiations with the Lead Proponent. Such negotiations include, but are not limited to, the following:
- a) changes or work refinements in the service requirements or scope of work proposed by the Lead Proponent;
 - b) price – if directly related to a change or refinement in the proposed scope of work proposed by the Lead Proponent and

- c) specific contract details as deemed reasonable for negotiation by the City of Richmond.

7.2 If a written contract cannot be negotiated within 60 days of notification to the Lead Proponent, the City may, at its discretion at any time thereafter, terminate negotiations with the Lead Proponent and either enter into negotiations with the next qualified Proponent or cancel the RFP process and not enter into a contract with any Proponent.

8. Project Background

The City of Richmond has been experiencing growth and change transforming with remarkable speed from a rural, local community to an international city with a balance of urban, sub-urban family and rural areas. The continuing development of the City's downtown core and waterfront areas ensures that Richmond's transformation is ongoing.

The City is currently updating its Official Community Plan (OCP) and anticipates that infrastructure analysis will begin on January 4, 2011. The purpose of this update is to enable the City to better plan, co-ordinate and manage the City's anticipated growth for the period of 2010 to 2041. The 2041 OCP addresses issues such as population growth, land use interest and environmental, social and economic sustainability.

In the past the City has hired various consultants to develop water, sanitary and drainage infrastructure models for the majority of the City. The City proposes to engage the successful consultant to use the infrastructure models to assess the existing water, sanitary and drainage infrastructure capacity to support the proposed 2041 OCP growth and provide infrastructure improvement strategy and recommendation plan. This will ensure that the City's infrastructure will be able to accommodate current and future development activities.

9. Project Scope

The Consultant shall dedicate an experienced efficient team capable of undertaking a variety of tasks for each utility (water, sanitary and drainage) including:

- review existing infrastructure models;
- collect and review required background information;
- check the boundary conditions and confirm with Metro Vancouver or other Agencies where necessary;
- update existing models if necessary;
- complete hydraulic modelling for the existing conditions;

- compare modeling results for the existing scenario with relevant available data sets to validate the existing models if necessary;
- complete hydraulic modelling for the proposed 2041 OCP scenario;
- identify existing system deficiencies for the existing and proposed 2041 OCP scenario;
- review modelling results and provide recommendations for the upgrades required to meet the existing and proposed 2041 OCP scenario;
- prioritize upgrades required to meet the existing and proposed 2041OCP scenario;
- provide Class C cost estimates for each upgrade required;
- provide final report for each utility (water, sanitary and drainage);
- attend meetings.

Utility specific tasks and objective are further outlined in Section 6 of this request for proposals.

Please refer to Appendix 1 for the Summary of Underground Utilities Inventory for the drainage, sanitary and water infrastructure.

10. Consultant Duties

The City would like to assess the impacts of the proposed 2041 OCP on the City's existing infrastructure and develop an upgrade strategy. Using the existing models, the Consultant will provide complete analysis for the City's water, sanitary and drainage systems as per requirements in this RFP.

The Consultant will also provide infrastructure upgrade/replacement recommendations and strategies complete with the Class C cost estimates. The plan shall identify utility locations, required sizing and other required features of the infrastructure systems to be replaced to meet the existing and the proposed 2041 OCP requirements.

Water

- Review the existing INFOWATER model and update the model to reflect recent infrastructure upgrades;
- Check the boundary conditions and confirm with Metro Vancouver where necessary;
- Check the key modeling parameters and confirm with the City;
- Provide recommendations on the number of model runs required for each scenario;

- Document key modeling parameters and boundary conditions for each scenario;
- Run an analysis of the water systems based on the existing conditions for average day, peak hour demand and for max day demand plus fire flow;
- Validate the existing model scenario with the available flow/pressure data sets;
- Run an analysis of the water systems based on the proposed 2041 OCP conditions for average day, peak hour demand and for max day demand plus fire flow;
- Provide an analysis of the existing water system and identify all deficiencies for the existing and the proposed 2041 OCP conditions;
- Identify efficiency improvements needed for the major facilities, feeder mains, distribution mains and tie-ins to the Metro Vancouver system that are required to meet existing and proposed 2041 OCP conditions;
- Ensure that the water servicing provided by the system consistent with the City's Design Specifications for existing conditions and proposed 2041 OCP scenario. Ensure that all areas of Richmond receive sufficient fire flow protection within the City consistent with the City of Richmond Design Guidelines and the Fire Underwriters Survey standards for existing and proposed 2041 OCP conditions;
- Develop a replacement strategy (i.e. improvements to the existing system, feasible alternate flow patterns, additional facilities/equipments, etc.) to accommodate existing and proposed 2041 OCP conditions;
- Prioritize the improvements required to meet existing conditions and proposed 2041 OCP scenario;
- Consult with Metro Vancouver to ensure that the existing Metro Vancouver feeder mains have the necessary capacity to accommodate proposed 2041 OCP scenario;
- Prepare a Class C cost estimate for the recommended replacement strategy for existing and proposed 2041 OCP conditions including engineering fees, construction cost and contingency;
- Provide functioning INFOWATER model with both existing and 2041 OCP scenarios;
- Provide final report for the existing water system analysis and the upgrade recommendations for existing and proposed 2041 OCP scenario.

Water Model-Most Recent Infrastructure Upgrades Required:

As part of this study, infrastructure upgrades made between 2007 and 2010 need to be added to the model. The model was last updated in early 2007.

Sanitary

- Review the existing Mike Urban sanitary model and update the model to reflect recent infrastructure upgrades;
- Check the boundary conditions and confirm with Metro Vancouver where necessary;
- Check the key modeling parameters and confirm with the City;
- Provide recommendations on the number of model runs required for each scenario;

- Document key modeling parameters and boundary conditions for each scenario;
- Run an analysis of the sanitary systems based on the existing conditions;
- Validate the existing model scenario with the flow or pump run time data sets available;
- Run an analysis of the sanitary systems based on proposed 2041 OCP conditions;
- Provide an analysis of the existing sanitary system and identify all deficiencies for existing and proposed 2041 OCP conditions;
- Identify efficiency improvements needed for the gravity mains, forcemains, pump stations and tie-ins to the Metro Vancouver trunk system that are required to meet existing and proposed 2041 OCP conditions;
- Ensure that the sanitary servicing provided by the system is consistent with the City's Design Specifications for existing conditions and proposed 2041 OCP scenario;
- Consult with Metro Vancouver to ensure that the existing Metro Vancouver collection trunk/pump station/ forcemain systems have the necessary capacity to accommodate proposed 2041 OCP scenario;
- Develop a replacement strategy (i.e. improvements to the existing system, feasible alternate flow patterns, additional facilities/equipments, etc.) to accommodate existing and proposed 2041 OCP conditions;
- Prioritize the improvements required to meet existing and proposed 2041 OCP scenario;
- Prepare a Class C cost estimate for the recommended replacement strategy for existing and proposed OCP conditions including engineering fees, construction cost and contingency;
- Provide functioning Mike Urban sanitary model with both existing and proposed 2041 OCP scenarios;
- Provide final report for the existing sanitary system analysis and the upgrade recommendations for existing and proposed 2041 OCP scenario.

Sanitary Model-Most Recent Infrastructure Upgrades Required:

As part of this study, infrastructure upgrades made between 2009 and 2010 need to be added to the model. The Model was last updated in early 2009.

Drainage

- Review the existing Mike Urban drainage model and update the model to reflect recent infrastructure upgrades;
- Check the boundary conditions for 10 year 2-hour and 10 year 24-hour design rainfall events and confirm with the City;
- Check the key modeling parameters and confirm with the City;
- Provide recommendations on the number of model runs required for each scenario to identify conveyance system capacity and pump station capacity;
- Document key modeling parameters and boundary conditions for each scenario;

- Run an analysis of the drainage system based on the existing conditions;
- Validate the existing model scenario with the flow, water level or pump run time data sets available;
- Run an analysis of the drainage systems based on proposed 2041 OCP conditions;
- Provide an analysis of the existing drainage system and identify all deficiencies for existing and proposed 2041 OCP conditions;
- Identify efficiency improvements needed for major drainage infrastructure, storm sewers and pump stations that are required to meet existing and proposed 2041 OCP conditions;
- Ensure that the drainage servicing provided by the system is consistent with the City's Design Specifications for existing conditions and proposed 2041 OCP scenario;
- Develop a replacement strategy (i.e. improvements to the existing system, feasible alternate flow patterns, additional facilities/equipments, etc.) to accommodate existing and proposed 2041 OCP conditions;
- Prioritize the improvements required to meet existing and proposed 2041 OCP scenario;
- Prepare a Class C cost estimate for the recommended replacement strategy for existing and proposed OCP conditions including engineering fees, construction cost and contingency;
- Provide functioning Mike Urban drainage model for both existing and proposed 2041 OCP scenarios;
- Provide final report for the existing drainage system analysis and the upgrade recommendations for existing and proposed 2041 OCP scenario.

This study's primary objective is to determine the most efficient infrastructure upgrade strategy for the West Richmond Drainage system under 2041 OCP build out conditions (study area defined by the West Richmond Drainage Model).

In achieving this, the City also requires to understand how its western drainage conveyance system performs independently of boundary conditions, that is, at low tide when it is independent of the Fraser River's tidal variations and dike pump station operation.

In considering how tidal variations and pump station activity, as well as groundwater, impact the system, a secondary objective is to identify future model validation/calibration strategies that also consider groundwater influence.

Drainage Model-Most Recent Infrastructure Upgrades Required:

The City's West Richmond Drainage Model covers the entire west side of Lulu Island up to Highway 99 plus approximately 50% of land between the Highway and Savage Road. As part of this study, infrastructure upgrades made between 2007 and 2010 need to be added to the model. The model was last updated in 2007.

Meetings

The Consultant shall arrange a minimum of six (6) meetings with City staff throughout the project as follows:

- Project initiation
- Background Information Collection
- Confirm Initial Set-up of Models and Key Model Parameters
- Hydraulic Modelling Results for the existing conditions and for the Proposed 2041 OCP scenario;
- Recommended Upgrade/Replacement Strategy
- Final Report Review

11. Project Submissions

After completing the analysis for each hydraulic modelling, the Consultant shall submit the following information:

- Latest version of the hydraulic models for each utility (water, sanitary and drainage). Each computer model shall be delivered on separate portable hard drives;
- Draft Reports (3 hard copies and 1 PDF copy for each utility: water, sanitary and drainage) summarizing the governing model criteria and model assumptions/parameters, description of the model runs and analysis, prioritized improvement recommendations and cost estimates;
- Final Reports (3 copies for each utility: water, sanitary and drainage);
- Electronic version of the final report in PDF format;
- Drawings should be included in the report and also submitted electronically in ArcMAP GIS and PDF format;
- Cost estimates should be included in the report and also submitted electronically in XLS and PDF format.

For each utility, the report should include:

a) Maps illustrating:

- The existing and proposed land use and population densities;
- The existing utility capacity deficiencies for the existing and the proposed 2041 OCP scenario;

- The utility location and minimum recommended size to meet the existing conditions;
- The utility location and the minimum recommended size to meet the proposed OCP scenario;
- All prioritized recommended improvements for the existing and the proposed OCP conditions;
- Any supporting information for setting up the models and key modeling parameters.

b) Tables summarizing the recommended upgrades including pipe ID, “To” and “From” manhole ID, existing pipe size, proposed pipe size, pipe length, existing and proposed pipe slope, existing and proposed invert elevation, and cost estimate (including engineering fees and contingency) for the proposed 2041 OCP conditions. The table should also identify the level of priority for each recommended upgrade.

c) Profile printouts (including maximum water surface elevation) from MOUSE for the proposed pipe upgrades for the proposed 2041 OCP conditions and any other printout information necessary to support the analysis and the proposed replacement strategy.

12. City Provided Items

The City will provide the following items:

- Land uses and population densities for the existing and the proposed 2041 OCP scenario;
- Most recent Census Data;
- Relevant City of Richmond ESRI GIS layers (to be identified by the Consultant);
- Copy of the Sanitary model in Mike Urban 2009 Service Pack 5, June 2010 software format:
 1. Lulu Island Sanitary Model (Existing Demand Scenario and Future Demand Scenario)
 2. Fraser Sanitary Model (Existing Demand Scenario and Future Demand Scenario)
 3. Mitchell Sanitary Model (Existing Demand Scenario and Future Demand Scenario)
- Copy of the Drainage Model in Mike Urban 2009 Service Pack 5, June 2010 software format:

1. Lulu Model (10 year 2-hour and 10 year 24-hour design rainfall events)
2. East Richmond Model (10 year 2-hour and 10 year 24-hour design rainfall events)

For more detailed information on Drainage Model available information refer to Appendix 2.

- Copy of the Water model in InfoWater Suite 7.0 SP1 Update #2 software format:
 1. 1-EX-AVG-DAY
 2. 1-EX-PK-HR
 3. 2-TZM-AVG-DAY
 4. 3-CCAP-PK-DAY+FIRE
 5. EX-PK-DAY+FIRE

Note: The Consultant must update the models to reflect existing and proposed 2041 OCP conditions.

- Reports relating to the previous models:
 1. Internal Memo dated November 20, 2009 Prescriptive Sanitary Sewer Model Development
 2. Water Model Update by EarthTech dated September 2007
 3. Drainage Model Update by EarthTech dated January 2008
- As-built drawings of the existing utilities for the models update;
- The City of Richmond Engineering Department Design Specifications, June 2008;
- The available flow meter/water level, pump run data to validate the existing model runs.

The City will not provide its own software to the successful consultant. The Consultant shall have their own software to complete the assignment.

13. Project Schedule

The project is to be completed by April 15, 2011. A project schedule is to be submitted with the proposal outlining the major milestones and tasks. A final document complete with model files is required by the stated completion date.

14. Proposal Submissions

The submissions must include, but is not limited to, the following sections:

14.1 Project Understanding

The Consultant shall outline an approach to the undertaking of the project reflecting a clear understanding of the scope of work.

14.2 Methodology

The proposal shall describe in detail the steps taken to provide the modelling services for each type of utility. The Consultant shall include all corresponding fees for each of them.

14.3 Schedule

The project must be completed by April 15, 2011. If in the Consultant's opinion more time is required to achieve the specified objectives, this should be clearly indicated in the proposal.

The Consultant shall provide a preliminary schedule for all services to be provided and a summary of levels of effort of personnel, their rates, hours, and costs for each aspect of the project.

A statement of commitment to undertake the project and provide the staff with the necessary experience on time and on budget shall be included.

14.4 Company Experience

The Consultant shall describe the company involvement and relevant experience in similar projects and provide the list of projects completed in the past five years.

14.5 Project Team

The Consultant shall list the personnel and the related task they will be completing, including the project manager, who will be working on the project and provide resumes of previous experience for each of them, as well as a schedule of their hourly fees. A list of any sub-consultants with brief resume of relevant experience must be included.

The Consultant should also provide a minimum of three (3) client references from projects of a similar size and scope undertaken by key members of the project team.

14.6 Fees

The proposal shall include a summary of fees to provide the required services based on hourly rates for staff assigned to the project, broken down by the different phases of the work for each utility. The proposal shall include a maximum fee (upset price) for all services. All proposed fees shall be valid for a minimum of one calendar year.

15. Review of Proposals

- 15.1 The City will review the Proposals submitted to determine whether, in the City's opinion, Proponents have demonstrated the required experience and qualifications to fulfill the obligations of the services identified in this RFP.
- 15.2 The City, in its sole discretion and without having any duty or obligation to do so, may conduct any inquiries or investigations, including but not limited to contacting references, to verify the statements, documents, and information submitted in connection with the Proposal and may seek clarification from the Proponent's clients regarding any financial and experience issues.
- 15.3 Proposals shall be evaluated to determine the best value offered to the City against conformance to the following criteria:
 - a) Understanding of project objectives/outcomes and vision.
 - b) Project Methodology.
 - c) Team Composition – Experience and Qualifications of those staff to be assigned to the project.
 - d) Company Experience
 - e) Project Deliverables.
 - f) Value for Money.
 - g) References.

- h) Project Timeline – Time is of the essence.

15.4 Proponents may be scheduled for an interview at the discretion of the City.

16. Non-Conforming Proposals

16.1 Proposals which fail to conform to the Format Requirements or which fail to conform to any other requirement of this RFP may be rejected by the City. Notwithstanding the foregoing or any other provision of this RFP, the City may at its sole discretion elect to retain for consideration Proposals which deviate either materially from the format requirements set out in hereto or which otherwise fail to conform to any other requirement of this RFP except the requirement of delivery of the Proposal prior to Closing Time.

17. RFP Process

17.1 The City may unilaterally take the following actions, and shall not be liable for any such actions:

- a) amend the scope and description of the products and services to be procured as described in this RFP, and the qualifications that may be required to meet those requirements;
- b) reject or accept any or all Submissions;
- c) cancel the RFP process at any time and reject all submissions; or
- d) cancel the RFP process and recommence in respect of the same RFP with the same or an amended set of documents, information and requirements.

17.2 The Proponent acknowledges and agrees that any RFP is in no way whatsoever an offer to enter into an agreement and submission of a Request of Proposal by any Proponent does not in any way whatsoever create a binding agreement. The Proponent acknowledges that the City has no contractual obligations whatsoever arising out of the RFP process.

18. Working Agreement

18.1 The successful proponent will enter into a contract for services with the City based upon the information contained in this request for proposal and the successful proponents submission and any modifications thereto. Draft Agreement is included as part of this RFP.

19. Information Disclaimer

- 19.1 The City and its directors, officers, employees, agents, consultants and advisors are not liable or responsible for any verbal or written information, or any advice, or any errors or omissions, which may be contained in this RFP or otherwise provided to any Proponent pursuant to this RFP.
- 19.2 The Proponent shall conduct its own independent investigations and interpretations and shall not rely on the City with respect to information, advice, or documentation provided by the City. The information contained in this RFP is provisional and will be superseded by other agreement documents.
- 19.3 The City makes no representation, warranty, or undertaking of with respect to this RFP and the City and its directors, officers, employees, agents, consultants and advisors, shall not be liable or responsible for the accuracy or completeness of the information in this RFP or any other written or oral information made available to any interested person or its advisors, and any liability however arising, is expressly disclaimed by the City.



City of Richmond

Agreement

This Agreement dated the ☼ day of November, 2010, at the City of Richmond, in the Province of British Columbia

Between:

City of Richmond
6911 No. 3 Road
Richmond, BC
V6Y 2C1

(the "City")

And:

☼

(the "Consultant")

Whereas:

- A. The City is ☼ (the "Event or Project");
- B. The City requires a ☼ the Event or Project:
- C. The City issued a Request for Quotation☼ for the supply and delivery of ☼;
- D. The Consultant is willing and prepared to deliver ☼;

NOW THEREFORE in consideration of the mutual covenants and agreements set out below, the parties covenant and agree as follows:

1. Responsibilities and Duties

1.1. The Consultant shall be responsible for the following as per Request for Quotation☼/Proposal ☼ and the Consultant's submission dated ☼.

- a) ☼
- b) ☼
- c) ☼
- d) ☼

- e) ✖
- f) ✖
- g) ✖
- h) ✖

1.2. The Consultant agrees to conduct himself professionally and with integrity so as not to embarrass or discredit the City throughout the performance of the duties and responsibilities set out in this agreement.

2. Compensation

2.1. In exchange for carrying out the duties and responsibilities set out in this agreement, the City agrees to pay to the Consultant, the basic amount of \$✖.00 plus HST for the duration of the term of this agreement according to the following Fee Schedule:

Project Phase	Basic Consulting Fees
Phase 1 – ✖	\$✖.00
Phase 2 – ✖	\$✖.00
Phase 3 – ✖	\$✖.00
Phase 4 – ✖	\$✖.00
Total basic fees for Phases 1 – ✖	\$✖.00

2.2. The total amount of payments shall not exceed the total upset amount of \$✖, plus HST, for the completion of Phases 1 through 3 inclusive.

2.3. The fees for Phase 4 tasks will be compensated as required by the development of the Project. Phase 4 tasks will be completed by the Consultant only with written authorization of the City and according to the following fee schedule:

Project Phase(s)	Basic Consulting Fees
Phase ✖ – ✖	\$✖.00

2.4. The total amount of payments shall not exceed the total upset amount of \$✖.00 plus HST, for the completion of Phase ✖ tasks.

2.5. Any additional consulting services would be charged at the following hourly rates for the respective services:

Position	Rate
✖	\$✖00, not to exceed \$✖.00 per hour
✖	\$✖.00, not to exceed \$✖.00 per hour
✖	\$✖.00, not to exceed \$✖.00 per hour

2.6. Every month, commencing no sooner than ✖, the Consultant shall submit to the City a written statement of account and setting out a detailed

summary of hours worked, meetings attended and the status of the Project (the “Statement of Account”).

- 2.7. The Statement of Account must show the amount of HST charged and include the Consultant’s HST registration number and City Purchase Order number.
- 2.8. The City agrees to make payments to the Consultant within Thirty (30) working days of receipt of the Consultant’s Statement of Account.
- 2.9. Every month, the Consultant shall submit to the City a list of expenses incurred in carrying out the duties and responsibilities set out in this agreement and, upon approval of such expenses by the City, the City will reimburse the Consultant for such expenses.

3. Performance Standards

- 3.1. The Consultant is responsible for meeting the following ✪ targets:
✪
- 3.2. The Consultant agrees to comply with following project deadlines:
✪
- 3.3. The Consultant shall prepare a report to the City on a monthly basis indicating ✪ what targets have been met over the preceding month and the status of efforts in relation to the targets set out.

4. Benefits

- 4.1. The Consultant hereby waives all rights, claims, and entitlements whatsoever afforded to employees of the City pursuant to the Group Life Insurance Plan, Long Term Disability Plan and the Dental Plan and any other such benefits. The Consultant agrees to pay, as required by Federal or Provincial Statutes any payments for Income Tax, Workers Compensation, Unemployment Insurance, Canada Pension Plan, Superannuation and other such payments.

5. Independent Contractor

- 5.1. The Consultant is an independent contractor and no agency, joint venture, association, partnership, employer-employee relationship is created between the City and the Consultant.

6. Assignment And Subcontracting

- 6.1. The Consultant will not, without the prior written consent of the City, assign, either directly or indirectly, any right or obligation of the Consultant under this agreement.

- 6.2. No sub-contract entered into by the Consultant will relieve the Consultant from any of his obligations or impose any obligation or liability upon the City to any such sub-contractor.

7. Indemnity

- 7.1. The Consultant agrees to indemnify and hold harmless the City, its agents, employees, and elected officials, against any damages, liabilities, or costs, including reasonable attorney fees and defence costs, arising from or allegedly arising from or in any way connected with any act or omission by the Consultant, his employees, officers, volunteers, servants, or agents, or persons for whom the Consultant has assumed responsibility, in the performance or purported performance of this agreement.

8. Insurance

- 8.1. The Consultant shall, at his own expense, carry and keep in force during the term of this agreement, the following coverage.
- a) Professional liability insurance with a minimum limit of \$250,000.00 for each occurrence and \$500,000.00 aggregate.
 - b) Comprehensive general liability insurance with a minimum limit of \$2,000,000 per occurrence with a cross-liability clause.
- 8.2. The City may require a dedicated limit of the Consultant's professional liability policy be allocated to cover the Consultant's work while contracted by the City.
- 8.3. The City shall be added as an additional insured under the Consultant's comprehensive general liability insurance.
- 8.4. All insurance policies shall provide that they cannot be cancelled, lapsed or materially changed without at least 30 days' notice to the City.
- 8.5. Prior to the commencement of the services hereunder, the Consultant shall file with the City a copy of each insurance policy and certificate required. All such insurance shall be maintained until final completion of the service.

9. Representation

- 9.1. The parties hereto agree that for all purposes hereunder the City shall be represented by the ☺.

10. Ownership of Products

- 10.1. The City shall take title to and ownership of all materials and products developed by the Consultant pursuant to this agreement, including reports, drawings, schematics, computer files, and designs developed, except those covered by copyright. All materials and products produced shall be provided to the City upon expiry of this agreement.

11. Confidentiality

11.1. The Consultant shall not disclose any information provided by the City, specifically proprietary, sensitive, personal or confidential information or that developed resulting through the performance of this agreement to any other party without the express written consent of the City. All information provided to the Consultant or developed by the Consultant pursuant to this agreement shall be returned to the City upon the expiration of this agreement. The Consultant acknowledges that the City is subject to the Freedom of Information and Protection of Privacy Act of British Columbia.

12. Related Companies

12.1. The Consultant shall not during the term of this agreement, perform a service for or provide advice to any person, firm or corporation where the performance of the service or the provision of the advice may or does, in the opinion of the City, give rise to a conflict of interest between the obligations of the Consultant to the City under this agreement and the obligations of the Consultant to such other person, firm or corporation.

13. Term

13.1. This agreement is valid for the period commencing ☼ and ending ☼ (the “Expiration Date”), or such later date as may be mutually agreed upon.

14. Termination

14.1. Notwithstanding any other provisions of this agreement, either party may terminate this agreement at any time upon at least two (2) weeks’ written notice delivered to the Parties at the addresses shown on the first page of this agreement, or such shorter time and in such a manner as may be agreed upon by the parties.

14.2. Notwithstanding the provisions of subsection 14.1, if in the opinion of the ☼, the Consultant has breached a material covenant, the City may cancel this Agreement immediately without notice.

15. Joint and Several Liability

15.1. Any covenant, agreement, condition or proviso made by two (2) or more persons shall be construed as several as well as joint.

16. Severability

16.1. In the event that any provision of this agreement shall be held to be invalid, void or unenforceable, then the remainder of this agreement shall not be affected, impaired or invalidated, and each such provision shall be valid and enforceable to the fullest extent permitted by law.

17. Non-Resident Withholding Tax

- 17.1. If the Consultant is, at any time during the Term, a non-resident of Canada, within the meaning of the Income Tax Act of Canada as amended (the “Act”), then the City shall deduct from all monies payable under this Agreement and remit to Canada Customs and Revenue Agency sums required to be withheld and remitted by the Act.
- 17.2. The City shall receive full credit under this Agreement for monies withheld as of and from the date of the withholding.

18. Notices

- 18.1. Any notices or other communications required or permitted hereunder shall be sufficiently given if delivered, or if sent by prepaid regular mail, to the addresses of the parties set out on the first page of this agreement, or to such other addressees as shall have been specified by notice in writing by either party to the other. Any such notice or communication shall be deemed to have been given, if delivered, and if mailed in Canada, on the fourth business day after the date of mailing.

19. Feminine/Masculine

- 19.1. Wherever the singular or masculine is used throughout these Terms the same shall be construed as meaning the plural, the feminine or body corporate or politic where the context or the parties hereto so require and vice versa.

20. General

- 20.1. This Agreement may be amended upon mutual agreement of the parties in writing.
- 20.2. This Agreement and the rights and obligations of the parties hereunder shall be governed by and construed in accordance with the laws of British Columbia.
- 20.3. This Agreement sets out the entire agreement of the parties and no representations, warranties or conditions have been made other than those expressed or implied herein. No agreement collateral hereto shall be binding upon the City unless made in writing and signed by the City.

The City and the Consultant Agree to these Terms the day and year first above written.

City of Richmond

Consultant

APPENDIX 1

**Underground Utilities Inventory - Assets will be updated Quarterly
October 8, 2010**

Drainage

Number of Drainage Pump Stations:	37 plus 2 (City Hall/Brighthouse/Gateway Theatre) *Tipping Rd North- abandoned
Number of Pumps in Drainage Pump Stations:	67
Number of Drainage MHs:	8710
Number of Drainage ICs:	25567
Number of Drainage CBs:	10288
Number of Drainage Connections:	27675

Km of Drainage Pipe Main:	611.1
Km of Drainage Box Culvert:	39.1
Km of Drainage Ditches:	183.1

Sanitary

Number of San Sewer Pump Stations:	153 plus 1 by-pass station
Number of San Sewer MHs:	7933
Number of San Sewer ICs:	17584
Number of San Connections:	31452

Km of San Sewer Gravity Main:	463
Km of San Sewer Force Main:	99.1
Km of San Trunk Sewers:	22

Water

Water Valves:	5521
Water Hydrants:	4525
Water Works PRV Chambers:	13
Water Works Pigging Chambers (Sponge Vault)	8
Water Caps:	516
Km of Water Hydrant Lead (City)	10.4
Km of Water Main (City):	623.4
Km of Water Main (Metro Vancouver):	19.8

DRAINAGE

CD/DVD TITLE	CD/DVD DATE	PREPARED FOR	PREPARED BY	LAND USE	CONDITION	DESIGN STORM	MODEL NAME	MODEL CREATED DATE	COMMENTS	# of Copies
City of Richmond Drainage Model Update - City Centre Mike Urban Models with Output Files Existing Land Use	March 2008	City of Richmond	EarthTech	Existing	No Improvements	10 Yr / 2 Hr	WEST RICH Feb232007.mup	November 30, 2007		3
					With Improvements	10 Yr / 24 Hr	WEST RICH Feb232007.mup	September 10, 2007		
					With Improvements	10 Yr / 24 Hr	WEST RICH Feb232007.mup			
City of Richmond Drainage Model Update - City Centre Mike Urban Models with Output Files TSM Land Use	March 2008	City of Richmond	EarthTech	TSM	No Improvements	10 Yr / 2 Hr	WESTRICHOC Feb15.mup	August 24, 2007		3
					With Improvements	10 Yr / 24 Hr	WESTRICHOC Feb15.mup	August 24, 2007	Only 1 CD has the improvements	
					With Improvements	10 Yr / 24 Hr	WEST RICH Feb232007.mup			
City of Richmond Drainage Model Update - City Centre Mike Urban Models with Output Files City Centre Land Use	March 2008	City of Richmond	EarthTech	CCAP	No Improvements	10 Yr / 2 Hr	WESTRICHOCNew Mar30.mup	May 8, 2007		3
					With Improvements	10 Yr / 24 Hr	WESTRICHOCNew Mar30.mup	May 13, 2007		
					With Improvements	10 Yr / 2 Hr	WEST RICH Feb232007.mup	November 8, 2007		
City of Richmond Model Updates Project - City Centre Mike Urban Drainage Model & Report	Jan 2008	City of Richmond	EarthTech	Existing TSM CCAP	No Drainage Improvements	10 Yr / 2 Hr	WEST RICH Feb232007.mup	September 10, 2007		3
					With Drainage Improvements	10 Yr / 24 Hr	WESTRICHOCNew Mar30.mup	November 8, 2007		
					With Drainage Improvements	10 Yr / 2 Hr	WEST RICH Feb232007.mup	May 16, 2007		
West Cambie Drainage Model Recommended Upgraded Under TSM-WCAP		Polygon	EarthTech	Existing TSM CCAP	No Drainage Improvements	10 Yr / 2 Hr	WEST RICH Feb232007.mup	September 10, 2007		1
					With Drainage Improvements	10 Yr / 24 Hr	WESTRICHOCNew Mar30.mup	November 8, 2007		
					With Drainage Improvements	10 Yr / 2 Hr	WEST RICH Feb232007.mup	November 9, 2007		
City of Richmond - East Richmond Drainage and Irrigation Models in Mouse and Mike Urban	March 2008	City of Richmond	EarthTech	Drainage Irrigation	No Drainage Improvements	10 Yr / 2 Hr	West Cambie TSM-WCAP.mup	July 17, 2008		3
					With Drainage Improvements	10 Yr / 24 Hr	DR#1.mup			
					With Drainage Improvements	10 Yr / 2 Hr	DR#5.mup			