

REQUEST FOR PROPOSAL - RFP # PS10035  
CONSULTING SERVICES FOR THE MODELLING, DESIGN AND SPECIFICATION OF FORCEMAINS,  
GRAVITY SEWERS, AND PUMP STATION UPGRADES

Questions and Answers NO.1

ISSUED ON February 15, 2010

Q1	<p><b>Page A3 - Item 2.3a</b></p> <p>This item requires reviewing the Kitsilano and Granville Island Pump Stations capacities and evaluating conceptual designs proposed by the City. What capacities are required for these stations and can the City provide the conceptual upgrades for these stations.</p>
A1	<p>With the process of greening the EBI, the City is proposing to eliminate as many sanitary connections to the EBI as possible, by constructing new forcemains and gravity sewers to redirect the sanitary flows from the EBI to the 8AI. The Consultant is asked to review current pump stations (Kitsilano, Metro Jervis and Oak &amp; 6<sup>th</sup>) systems and propose upgrades or modifications to pump existing capacities and not do any upgrade designs until approved by the City. Refer to Amendment 1 which outlines changes relating to the scope of work.</p>
Q2	<p>Do pump station upgrades involve civil, mechanical and electrical components? If so more detail on upgrades requirements is necessary.</p>
A2	<p>The City is asking the Consultant to identify and provide preliminary cost estimates for reviewing as-built drawings and completing hydraulic analysis of proposed forcemain designs. The upgrades could involve elements of civil, mechanical or electrical components or all three. More detail on upgrade requirements is not available at this time, however a provisional amount regarding the design of the upgrades will be set aside by the City and the Consultant will not do any design work until approved by the City. Refer to Amendment No. 1 regarding the scope change.</p>
Q3	<p><b>Page 4 Requirements - Item 6.5 b</b></p> <p>This item requires computer modeling of the Kitsilano, Granville and Jervis pump stations and discharge forcemains. The Jervis pump station is a Metro Vancouver station. What is the purpose of modeling this station? Is this because the Kitsilano station pumps into the Jervis pump station forcemain and is affected by operation of the Jervis pump station? Who will provide details on the Jervis pump station and forcemain?</p>
A3	<p>The Consultant will investigate, analyze and review the Kitsilano, Metro Jervis and Oak &amp; 6<sup>th</sup> pump stations and not the Granville pump station (Refer to Amendment No.</p>

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	<p>1 for scope changes). The City will provide as-built drawings for all the pump stations to the successful Consultant. The City plans to redirect flows from the Kitsilano pump station to the Jervis pump station forcemain, via a new proposed forcemain on York Ave. The Consultant is expected to review and perform hydraulic analysis of both Kitsilano and Jervis pump stations, in this case.</p>
Q4	<p><b>Page A3 - Item 2.4 a) Kitsilano Forcemain Replacement</b></p> <p>Is there any significance to the order of Stage 1, 2 and 3. It seems the forcemain and pump station work are split between the Stages. Also what is the nature of required upgrades at the Kitsilano pump station? The description of upgrade is not adequate to define the scope of work as also noted above.</p>
A4	<p>The City wants to break down the proposed works in stages so that the City can determine the logistics of the construction, depending on the available federal grants and the detailed estimates. The City may have its own crews to do certain stages if the funding for the contracted works is not available. For the purposes of the RFP, Proponents are asked to review the pump stations' as-built drawings, perform hydraulic analysis, recommend any required upgrades or modifications as required and provide detailed cost estimates. Refer to answer A2 (above) for more information.</p>
Q5	<p><b>Page A4 - Granville Island Forcemain/Gravity Sewers - Item 2.4 b</b></p> <p>Does the new forcemain section replace an existing forcemain connection to the EBI? Do the new gravity sections tie into the 8AI. Stages 3 and 4 require installation of both new sanitary and storm sewers; presumably to replace an existing combined sewer, or is the existing combined sewer to be continued as a storm sewer?</p> <p>It is assumed the City would be able to provide "record service" drawings for City services along the route. This would apply to all installations.</p>
A5	<p>The existing forcemain from the Granville Pump station and the gravity sewer line on 2<sup>nd</sup> Ave direct sanitary flows to the EBI. The City is proposing to redirect the sanitary flows out of the EBI by extending new forcemains on 2<sup>nd</sup> Ave and Fir St. The intent of Stages 3 and 4 is to do sanitary/storm separation, replacing existing combined sewers with new separate sanitary and storm pipes. Depending on the age and condition of the pipe, the existing sewer could remain as sanitary sewer and new storm pipes could be built. The City will provide all property service locations, if possible.</p>
Q6	<p><b>Page A4 - Oak Street &amp; West 6<sup>th</sup> Forcemain Extension - Item 2.4c</b></p> <p>Is this forcemain extension to remove the current discharge from the EBI and move it to the 8EI with the extension? The forcemain extension ends at Laurel and 7<sup>th</sup>. Is this connecting to a gravity sewer at this location which would then connect to the 8AI?</p>
A6	<p>The current forcemain on Laurel discharges sanitary flows from Oak and 6<sup>th</sup> pump</p>

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	<p>station to the EBI. The City is proposing to redirect the sanitary flows out the EBI by extending the forcemain on Laurel to W. 7<sup>th</sup> Ave and to connect the new forcemain to the proposed gravity sewers along 7<sup>th</sup> Ave. The proposed gravity sewer line will continue along Ash St and terminates at 8<sup>th</sup> Ave which is the tie-in point to the 8AI. The Consultant is expected to coordinate with Metro Vancouver for the tie-in approvals at 8<sup>th</sup> and Ash.</p>
Q7	<p><b>Page A4 - Provisional Work - Item 2.5</b></p> <p>Are the provisional work items also related to increasing flows to the 8AI or just additional sewers?</p> <p>a) The provisional sewer on Arbutus is noted as an alternate forcemain. What does this mean with respect to the scope of work. Are both a gravity sewer and forcemain required or one or the other? What is the function of this sewer and what would the approximate size be? Does it relate to the Kitsilano pump station?</p> <p>b) What is the function of this provisional sewer and what are approximate sizes?</p> <p>What is the function of this provisional sewer and what are approximate sizes?</p>
A7	<p>The intent of all the provisional work items is to redirect all the sanitary flows out of the EBI to the 8AI. The provisional sewer on Arbutus is an alternate forcemain for the Kitsilano Pump Station and it serves as a redundancy or back up piping system in the event that the Jervis forcemain breaks down or decommissioned for whatever reasons. The main function of this sewer is to carry the current capacity from the Kitsilano pump station. The Consultant is expected to carry out the designs/specifications, investigations, flow calculations and size the pipes etc.</p>
Q8	<p><b>Page 8 - Requirements - Item 9.3 a</b></p> <p>This is a large value for liability insurance. Is this correct and if so what is the estimated budget for the project</p>
A8	<p>The insurance requirements are correct as stated. The City is not prepared to release the estimated project budget.</p>
Q9	<p><b>Schedule:</b> In view of the requirement that topographical surveys, compilation of "as built" and third party services for preparation of base plans and preliminary plan and profiles are required it will be difficult to complete this work between March 30 and April 15 (i.e. 11 working days to complete conceptual survey and preliminary drawings and 22 days for 50% design). Has the City expedited the preparation of all relevant as built data for pump stations and existing sewers and other City owned utilities along the various project routes?</p>
A9	<p>The City is prepared to provide all relevant as-built drawings/data for the mentioned pump stations, existing sewers and property service locations, if available. The City is in the process of compiling such data for this project. The City will not provide</p>

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	any base plans but will provide all available utility plans/maps. The City is aware of the aggressive schedule but the construction of the forcemains and gravity sewers has to be completed by March 2011 in order to qualify for federal grant funding.
Q10	For the schedule; how long will the City take to review each set of drawings? Approvals and permits from Metro Vancouver for tie-ins usually take some time and may be hard to add to a schedule. Can we assume Metro Vancouver is aware of all the new tie-ins and changes and will only need to review the specific details to ensure they meet their standards?
A10	Given the tight timeline, the City will take 2 to 3 working days to review each set of drawings. Metro Vancouver ("MV") is not aware of our proposals and the new tie-in at 8 <sup>th</sup> and Ash. The Consultant is expected to submit applications to MV as early as possible. MV might request for additional geotechnical investigations and other related design drawings.
Q11	Prime Contractor Agreement Form: Is not this form intended for a construction tender?
A11	During the design phase, the Consultant will be asked to act as the Prime Contractor for the purposes of occupational health and safety for any City site that they are attending. Once a general contractor has been retained for the construction phase that firm will assume full duties as the Prime Contractor.
Q12	Appendix 10 throughout the document notes the project as Oak Street and 6th Avenue forcemain extension, however the appendix drawing and text is gravity main installation along W7th and Ash? Is there forcemain work associated with this item?
A12	Please refer to Amendment No 1. There is a forcemain extension on Laurel St., at W. 7 <sup>th</sup> Ave.
Q13	Introduction 2.2, the forcemain length appears to be correct, however gravity sanitary lengths from VanMap measurements of approximately 1080m, not 450m of gravity installation. And the provisional work of approx 525m of sanitary work is not included therein.
A13	Please refer to Amendment No 1. A total of approximately one thousand and fifty (1050) m of gravity sewer installation is being considered. The provisional work items are separate and are not included in the total sum mentioned here.
Q14	Pump station upgrades are required at Kitsilano and Granville Island. Do the City conceptual designs outline the scope of work? Is it only related to pump upgrades and possible HP changes? Please clarify scope.
A14	Please refer to Amendment No 1. Pump station upgrades are required at Kitsilano, Metro Jervis and Oak & 6th and NOT Granville Island. Pump station upgrades might

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	include civil, mechanical or electrical or all three. For the purpose of this RFP, the proponents are required to investigate, review and model all three pump stations and propose upgrades. Consultants will not perform any detailed design work of the pump station upgrades until approved by the City.
Q15	Pump upgrades are noted for the Kitsilano PS, however on the site plans it is noted as Arbutus PS, we assume these are one and the same.
A15	Please refer to Amendment No 1. Arbutus PS was incorrect.
Q16	Site Description 2.4, b) no mention is made for Granville Is PS upgrades and c) forcemain again is used for the title, whereas the work is gravity main only
A16	Please refer to Amendment No 1. There are NO upgrades required for the Granville Island Pump Station.
Q17	What is the extent of sewer modelling required for PS upgrades, forcemain and gravity mains, please clarify extents and information to be provided by the City. Is the intent to perform any flow testing?
A17	The City is proposing redirecting sanitary flows out of the EBI by extending and redirecting flows from the Kitsilano PS to the Metro Jervis forcemain. Hydraulic analysis must be performed for all the pump stations and forcemains and recommend upgrades. The City will provide all pump station as-built drawings and flow data, if available.
Q18	Modelling for the GVRD Jervis PS and recommend upgrades is noted within 6.5, how does this PS relate to the work, and clarify extent of modelling, and if upgrades are to be allowed for at the GVRD PS.
A18	The City is proposing to redirect the sanitary flows from the Kitsilano pump station to the Jervis forcemain via a new proposed forcemain on York Ave, refer to Appendix 9. Consultants are required to perform hydraulic analysis of the Kitsilano and Metro Jervis pump stations.
Q19	For storm / sanitary separation works, are existing building services combined or separated? Does the City have video inspections or will complete to identify service locations.
A19	The City will provide all video inspections and service locations of existing gravity sewers, if available.
Q20	Is a Stage 1 PSI required to review potential for contaminated soils?
A20	No.

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Q21	Functional requirements 6.2 notes some piping may require pile support, please clarify
A21	City archive drawings show some sections of the existing forcemains for the Kitsilano pump station are on piles, although there is no peat in the area. Geotechnical investigation is required.
Q22	Site investigation 6.3 notes collect geotech information, is a geotechnical report required or is a review of other existing reports, please clarify
A22	For the tie-in at 8 <sup>th</sup> and Ash, Metro Vancouver may require a geotechnical report for the tie-in. The City does not have any existing reports for this location.
Q23	Schedules, can the Consultant provide alternate similar forms within the proposal, in lieu of the City forms.
A23	Although the City prefers schedules to be in the form provided, alternate schedules which contain all of the information requested by the City will be accepted. Each page should be marked with the RFP number and title and the Schedule name and letter and be initialled by the Proponent.
Q24	Does the Granville Island pump station require any review in view of the fact it is already being upgraded as part of a different project?
A24	There are no upgrades required for the Granville Island pump station.
Q25	How does the proposed new gravity sewer from Granville Island find its way to the 8AI from 4 <sup>th</sup> Ave. and Pine St. or are there other future works required?
A25	At some time in the future, Metro Vancouver is planning to extend its forcemain to Pine St & 3 <sup>rd</sup> Ave and will continue with its gravity main to the 8AI. Metro Vancouver will leave the stub for the City to tie in at Pine St. and 4 <sup>th</sup> Ave. In the mean time, the proposed gravity sewers along 4 <sup>th</sup> Ave will connect to the existing gravity combined sewers on Pine St. at 4 <sup>th</sup> Ave.
Q26	Is it the intent that the discharge from the Granville Island pump station is to be discharged to the Kitsilano pump station where it would be re-pumped into the new Metro Vancouver forcemain?
A26	There is no plan to pump the discharge from the Granville Island pump station to the Kitsilano pump station. The Kitsilano pump station will discharge to the Metro Jervis forcemain at York Ave and Chestnut St.