

CITY OF BLAINE
REQUEST FOR COUNCIL ACTION
MEETING DATE: April 14, 2008

SUBJECT: 360 Pressure Zone Improvements Design Contract Amendment –
Pump Station #4R Design

SUBMITTING DEPT: Public Works

PREPARED BY: _____
(Digital Signature)

AGENDA LOCATION: ☐ Comments/Communications; ☐ Consent; ☐ Committee Reports
☐ Unfinished Business; ☒ Council Action Items; ☐ Public Hearing; ☐ Standing Committees

ATTACHMENTS: Amendment No. 4 to RH2 Professional Services Agreement

ANALYSIS / SUMMARY: On November 28, 2005, the City Council authorized execution of a contract with RH2 Engineers for the alternatives analysis and engineering design of improvements to Semiahmoo's "360" water pressure zone,. RH2 has completed Phase I which evaluated alternatives for replacing and/or retrofitting Pump Station #4 that provides the pressure for this zone. Alternatives considered included retrofit of the existing pump station, construction of a new station at the existing site, and a new facility at the current 330 Zone reservoir site.

The consultant recommended and staff has agreed to locate a new high pressure pump station (4R) at the 330 Zone Reservoir site with check valves to connect to the 330 (low pressure) Zone during a fire event, a PRV Station connecting the Drayton Harbor Road eight-inch main to the high pressure zone for secondary supply during a fire event, an additional 330 Zone fire hydrant near the Semiahmoo Golf Clubhouse, and ~ 1,200 lf of 12-inch diameter water line to connect to the existing 12-inch high pressure water main near Goldeneye Lane. The attached amendment addresses the increased design cost associated with both the increased scope of the work and the increases in hourly rates since the project was first awarded.

RECOMMENDATION: ☒ Waive 2nd Reading: Staff recommends that City Council authorize the City Manager to sign amendment #4 in the amount of \$33,700 for final design of Water Pump Station #4R.

FISCAL ANALYSIS: Compensation for services performed under this amendment will derive from Fund 329 Water Capital Improvements. This project is in the Capital Improvement Program.

REVIEWED BY:

City Manager _____ Finance Director _____ City Clerk _____
(Digital Signature) (Digital Signature) (Digital Signature)

COUNCIL ACTION:

☐ Approved ☐ Denied ☐ Tabled/Deferred ☐ Assigned to: _____

COUNCIL ACTION: _____

CITY OF BLAINE
AMENDMENT No. 4
TO
PROFESSIONAL SERVICES AGREEMENT – S05-08
Water Pump Station No. 4 Analysis and Design

The November 28, 2005 *Professional Services Agreement* between the City of Blaine (City) and RH2 Engineering, Inc. (Consultant) is hereby amended as follows.

Item #1: Section 1, Scope of Work: Amended to reflect the updated design effort associated with the preferred alternative selected by the City during Phase I Analysis. A new pump station, to be designated Pump Station No. 4R, will be designed and located near the 330 Reservoir. See detailed scope attached as **Exhibit A**.

Item #2: Section 2, Term: Remains unchanged (December 31, 2008).

Item #3: Section 3, Compensation: The City shall pay the Consultant on a time-and-expense basis an additional Thirty-Two Thousand, Seven Hundred Dollars and No Cents (\$32,700.00) for additional engineering services as described above, for a new revised total contract amount not to exceed One Hundred Thirty-Nine Thousand Nine Hundred Seventy-Two Dollars and No Cents (\$172,672.00) without prior approval.

All work shall comply with City standards and be approved by the City prior to payment.

All other items, terms and conditions of the contract remain unchanged.

The effective date of this Professional Services Agreement Amendment shall be April 15, 2008.

City of Blaine:

RH2 Engineering, Inc:

Gary R. Tomsic
City Manager

Date

Tony V. Pardi, PE
Vice-President

Date

Attest:

Departmental Approval:

Sheri Sanchez
City Clerk

Date

Stephen R. Banham, PE
Director, Public Works Department

Date

Exhibit A

SCOPE OF SERVICES

PHASE 2 - DESIGN

BACKGROUND

RH2 has completed Phase 1, which considered alternatives for replacing and/or retrofitting the function of Water Pump Station 4. Alternatives include retrofit of the existing station, construction of a new station at the existing site, and a new facility at the current 330 Zone reservoir site. This analysis includes fire flow considerations as agreed by the City and North Whatcom Fire and Rescue Services. RH2 provided a decision document to select the preferred project for design and construction. The preferred project is a pump station to be placed at the Semiahmoo Reservoir site.

Design is based on the City choosing a new pump station at the 330 Zone Semiahmoo Reservoir site with the addition of two check valves to connect the 400 Zone to the 330 Zone during a fire event, one four-inch Pressure Reducing Valve Station to connect the Drayton Harbor Road eight-inch main to the 400 zone to provide secondary supply during a fire event on Drayton Hillside, and the addition of a 330 Zone-connected fire hydrant near the Semiahmoo Golf Clubhouse. Water main of approximately 1,200 lf of 12-inch diameter will be required from the new pump station to the west side of Goldeneye Lane to connect to an existing 12-inch 400 Zone water main. A future approximately 1,700 lf water main is planned as part of the 2007 Comprehensive Water System Plan update to connect the new Water Pump Station #4R to Prestwick Village along Semiahmoo Parkway. This design and construction will be accommodated by future contract scope and fee or may be completed by developer extension agreement.

Objective: To provide the City with bid-ready plans, specifications and construction cost estimate necessary for permitting and construction of the improvement.

Approach:

Task 2.1 – DOH Design Report

1. Complete a Project Description section detailing the following.
 - a. Problem identification and relationship of project to other system components.
2. Planning Data – Relationship to Comprehensive Water System Plan.
 - a. Project background, population and water demand forecasting (from Alternatives Hydraulic Analysis Report - AHAR).
 - b. Local requirements – fire flow (from AHAR).
 - c. Management responsibilities.
 - d. Proposed construction schedule.
 - e. Estimated capital and annual operating costs and method of financing (AHAR).
 - f. Alternatives analysis (from AHAR).
 - g. Water quality and its relationship with the project.

- h. Engineering calculations for sizing and capacity (from AHAR).
 - i. Construction standards and design criteria.
 - j. Legal considerations (easements, rights-of-way).
3. Complete and submit two (2) copies of the Design Report to John Thielemann at DOH. We will provide two (2) copies to the City and one (1) additional copy for Consultant use.

Assumptions: *This assumes that the DOH regional engineer will cooperate with the City of Blaine and allow the project to proceed as the City's water system comprehensive plan has not been submitted and approved by DOH, and the existing outdated draft plan does not contain this project as a capital element.*

City will pay for DOH design report review fees.

Task 2.2 – Site Cultural Resources Assessment

1. Coordinate archaeological assessment activities with RH2.
2. Review proposed archaeological assessment plan.
3. Implement archaeological assessment.
4. Review draft archaeological report for submission to RH2.

Assumptions: *Due to the proximity of the site to Drayton Harbor, it is assumed that the area has some probability of containing cultural resources. This portion of the work will be completed by Applied Preservation Technologies (APT). The cost for this portion of the Scope of Work is based on a number of assumptions and may require adjustment depending on what is discovered at the site. This Scope of Work assumes no cultural resources are located during the on-site study within the building excavation; therefore, any costs involved with activities that encounter archaeological deposits and are related to unanticipated discovery procedures will be addressed in an amended Scope of Work.*

The scope and fee estimate from APT is provided as an attachment to this Scope of Work. Note that subconsultant costs include 15% for overhead and administration.

Task 2.3 – Site Geotechnical Investigation and Report

1. Complete site investigation, including up to two (2) test pits, of the proposed site to determine geotechnical parameters to be used in the design.
2. Review soil conditions; provide earth horizontal and bearing pressures, foundation design criteria, excavation criteria, construction and permanent slope stability concerns, compaction and site drainage recommendations, base shear capacity, seismic design constraints and restoration details.
3. Provide a geotechnical engineering tech memo summarizing findings for use during the structural design and construction of the booster pump station.

Assumptions: *The geotechnical report scope assumes a Glacial Marine Drift consisting of silts and sands will be found on-site capable of supporting a one story structure with spread footings buried 18" inches below finished grade with bearing capacity requirements of two kips per square foot, minimum with up to three feet of excavation required to reach bearing earth stratum. We*

assume no bedrock, large boulders or expansive clay soils are to be encountered to support the structure. It also assumes that the excavation can be performed using tiger teeth on an excavator. If these assumed conditions are not found, this scope may need modification. It also assumes that the City can provide an operator and rubber tired backhoe capable of digging 12 feet vertically into the earth. Previous Geotechnical Reports for the 330 Zone Reservoir are also assumed to be available to the Consultant by the City without cost to the Consultant. It is assumed that no specific investigation is required to construct buried utilities.

Task 2.4 – 50-Percent Design

1. Review and finalize the size and number of pumps based on the selected project option.
2. Investigate power supply to the location. Coordinate additional power supply requirements for the proposed booster pump station with the commercial power provider for the area.
3. Meet with City staff to review design criteria checklists, design ideas, site layout options.
4. Design a 50%-complete layout of water main from Water Pump Station #4R to Goldeneye Lane.
5. Design a 50%-complete layout of the check valves and four-inch Pressure Reducing Valve and Fire Hydrant.
6. Design 50%-complete structural layout of the booster pump station.
7. Design 50%-complete mechanical layout of the booster pump station and site.
8. Design 50%-complete electrical layout of the booster pump station.
9. Design 50%-complete telemetry/control layout of the booster pump station.
10. Complete 50%-complete construction cost estimate.

Assumptions: *3-phase 480 Volt power is available off of Semiahmoo Parkway.*

A completed site survey of the reservoir site in its entirety will be provided by the City to RH2. The survey drawing will be completed in AutoCAD electronic format meeting Consultant Survey Requirements including two-foot contours, all surficial features and all underground and overhead utilities including cell towers and buried power and telephone lines. This will include a survey of the 12-inch diameter water main 1,200 feet in length from connection point to connection point with tie-ins at each end from Water Pump Station #4R to Goldeneye Lane 400 Zone piping. The completed survey will be available to Consultant in AutoCAD electronic format and contain all utilities on the site and meet Consultant Survey Requirements including two-foot contours, all surficial features and all underground and overhead utilities.

Construction notes including, water main construction, traffic control, utility conflicts including sanitary sewer crossing, paved roadway surface restoration, access road to 330 Zone reservoir restoration and City standard notes, shall be provided to the Consultant by the City in electronic format for integration with General Plans with no customization for this specific project.

Site plan design will not require deep foundation excavation, removal of boulders or expansive soil layers in order to support the structure. Excavation will be completed per the assumptions in the geotechnical report section 2.3.

Task 2.5 – Final Design, General, Site, Water Main, Mechanical

1. Meet with City staff to review the 50 percent design plans and construction cost estimate.
2. Finish General plans to 90 percent completion.
 - a. Cover Sheet with Vicinity Map and Project Contacts (one total).
 - b. General Information (1 total).
3. Finish Water Main Plans and Details to 90 percent completion.
 - a. 20 scale Proposed Water Main Plan (two total).
 - b. Piping Tie-in and Testing Details (one total).
 - c. Miscellaneous Site/Construction Details (one total).
4. Finish Detail Plan to contain four-inch PRV Station, two Check Valves and Fire Hydrant.
5. Finish Site Plans and Details to 90 percent completion.
 - a. 40 Scale Existing Site Plan (one total).
 - b. 20 Scale Excavation Plan (one total).
 - c. 40 Scale Proposed Site Plan (one total).
6. Finish Mechanical Plans and Details to 90 percent completion.
 - a. Interior Mechanical Plan and Obliques (one total).
 - b. Exterior Mechanical Plan and Details (one total).
 - c. Mechanical Details (two total).

Assumptions: *Very minimal landscaping will be required for the site (hydroseed and up to 10 trees maximum). No irrigation will be required. Existing access and security to/around the site will remain the same with no improvements.*

Water main design will not require utility relocation of existing utilities within the same corridor used for the water main.

Mechanical layout will include steel suction and discharge headers, isolation valves for each pump and slow swing check valves for pumps controlled by Variable Frequency Drives. Pump station will have a maximum of six pumps, two low flow domestic, two average day domestic and one peak day with a bay for future additional peak day flow. Fire flow will be provided in combination with the 330 Zone using the peak day pump running at high flow, low head condition.

City standard details for water main construction including check valves, fire hydrants, testing conditions and isolation valves are available in electronic format for use by Consultant.

Task 2.6 – Final Design, Stormwater

1. 90 percent construction stormwater pollution prevention - TESC measures plan (one total)
2. 90 percent on-site Stormwater Management BMPs - roof downspout control and stormwater dispersion BMPs plan (one total).

Assumptions: *Stormwater design does not require detention or treatment ponds and conveyance because the*

project will not reach the minimum threshold of 10,000 square feet of new effective impervious surfacing. No BMPs report for stormwater management is required.

Task 2.7 – Final Design Structural Plans

1. Finish Booster Pump Station Plans and Details to 90 percent completion.
 - a. Structural General Notes Plan (one total).
 - b. Structural Floor and Floor Drain Plan and Details (one total).
 - c. Structural Building Section and Details (one total).
 - d. Structural Roof Plan and Details (one total).
 - e. Structural Misc. Details (two total).
2. Complete Structural Calculations for the structure.
3. Finish Structural Specifications to 90 percent completion.

Assumptions: *Based on the results of Task 2.5, provide calculations, plans and specifications for the design of the booster pump station building to 90 percent completion and ready for building permit submittal. The building is assumed to be constructed of CMU walls on stem footings with a metal roof and at at-grade concrete floor. The size of the building will be rectangular, and approximately 1,200 to 1,500 square feet, with a maximum of three rooms, a pump room, an electrical room, and an engine generator room. The Scope includes design of miscellaneous structural supports for mechanical and electrical equipment as required.*

Task 2.8 – Final Design Electrical Plans

1. Finish Electrical Plans and Details to 90 percent completion.
 - a. Electrical Power Plan (one total).
 - b. Electrical Lighting Plan (one total).
 - c. Telemetry Plans (three total).
 - d. Motor Control Center Plan (one total).
 - e. Emergency Generator, Fuel Tank, Automatic Transfer Switch Plan and Details (one total).
 - f. Electrical One Line Diagrams (two total).
 - g. Miscellaneous Electrical Details (two total).
2. Finish Electrical Specifications to 90 percent completion.

Assumptions: *Based on the results of Task 2.5, provide calculations, plans and specifications for the design of the booster pump station power and telemetry. The pump station will be designed to have six pumps, two low flow domestic, two average day domestic and one peak day pump with bay and conduit for one additional peak day pump. Emergency power will be designed using a diesel power on site generator and sized to operate a peak hour demand or peak day demand plus fire flow at reduced head condition.*

Task 2.9 – Final Design Telemetry/Control Plans

1. Finish Telemetry/Control Plans and Details to 90 percent completion.
 - a. Telemetry Block Diagram (one total).
 - b. Telemetry Panel Layout and Panel Schematic (one total).
2. Finish Telemetry/Control Specifications to 90 percent completion.

Assumptions: *Communication parameters for system integration with the City's telemetry system will be provided by the City (Leroy Dougall and others involved with the system). Telemetry design will be provided by Consultant. It is assumed that system integration design will be done to the level required for competitive bidding.*

Telephone connection is available at Semiahmoo Parkway and radio antennas have adequate transmission capability from the 330 Zone Reservoir site to City Hall.

Task 2.10 – Final Design Technical Specifications

1. Create Consultant Facility Technical Specifications to detail construction components for site, mechanical and utilities. Integrate with structural and electrical specifications.
2. Update construction cost estimate for comparison to contractor bids.
3. Provide one copy of plans, specifications and construction cost estimate to City staff for final comments.

Assumptions: *The City will provide legal specifications (general conditions, contract forms) for the construction contract in Microsoft Word format for inclusion with the technical specifications with no project specific modifications provided by the Consultant.*

Task 2.11 – Permitting

1. Submit two copies of the 90 percent plans, specifications and construction cost estimate to the Department of Health for construction approval review. Provide one additional copy for the City and one for Consultant files.
2. Prepare a SEPA Checklist for the project with the assumption that a Determination of Non-Significance will be issued by the SEPA Official. Provide one copy and one pdf electronic format copy of the checklist to the City for submittal.
3. Submit two copies of the 90 percent plans, specifications, structural calculations, stormwater calculations and construction cost estimate to the City of Blaine for Building Department approval review. This set is assumed to be the same version as that prepared for DOH.

Assumptions: *No critical areas or hydraulic/JARPA/Corps or special cultural resources permits will be required for this project. If such permit(s) is/are required, this portion of the Scope of Work will require adjustment.*

City will pay for construction document review fees including those billed by DOH and the City building department.

Task 2.12 – Production

1. Finalize plans and specifications based on review comments by City staff.
2. Produce one set of reproducible 11x17-inch plans, one set of D-size plans and one set of unbound reproducible specifications. Two volumes will be produced: specifications (Volume 1) and plans (Volume 2).

3. Provide one addendum as necessary to clarify bidding contractor questions and concerns. This addendum will be completed three to five days prior to bid opening and contain text only.

Assumptions: *City staff will complete the Advertisement for Bids and schedule and attend the bid opening date.*

Applied Digital Imaging (ADI) will be able to reproduce bid ready documents including color 11x17-inch plan sets and specification sets. ADI will be responsible for quality control to insure all sets have all pages and are clearly printed. Costs for ADI services will be paid by the City and are not included with this scope of work.

DOH and City comments are assumed to be very minor in nature and include note changes for structural and water quality components only. Consultant anticipates eight hours of CAD time and four hours of specification updates required, maximum.

Task 2.13 – Services During Bidding and Bidder Evaluation

1. Review Contractor references for necessary experience and recommend acceptance of Contractor.
2. Recommend award to the lowest and best qualified contractor.

City Responsibilities and Deliverables:

1. Complete copies of all available as-built drawings for the existing pump station and reservoir location.
2. Complete copies of previous Geotechnical/Geologic reports for the 330 Zone Reservoir and 360 Zone Booster Pump Station.
3. Review of topographic survey provided by the City maintenance staff to verify water, storm, power and telemetry utilities, communications wiring and conduit locations.
4. Coordinate with communications companies with cell phone antennas at the existing reservoir as necessary.
5. Review comments for design criteria and layout, 50 percent and 90 percent plans and specifications.
6. Provide water system standard details in electronic format (CAD or pdf) for City isolation valves, water main construction, fire hydrants, check valves, pressure reducing stations and roadway patching.
7. City Building Permit coordination and review fees.
8. City Building Permit forms in Microsoft Word Format.
9. Legal Contract Document Specifications in Microsoft Word Format.
10. Bid Advertisement.
11. Bid Opening Date and Scheduling.

Consultant Deliverables: *(If deliverable is a report or other documentation greater than five pages in total length that uses 8.5x11-inch and/or 8.5x17-inch sized pages, Consultant shall bind in standard three-ring binder (not comb binder). Otherwise binding method is consultant's choice.)*

1. DOH Design Report (two to DOH, one to City, one for Consultant).
2. Cultural Resources Report (two to City, one Consultant, one APT).

3. Geological Report (two to City, one Consultant).
4. 50 percent complete design plans (one City, one Consultant).
5. 90 percent complete design plans (one City, one Consultant).
6. DOH Construction Documents (two DOH, one City, one Consultant).
7. Building Permit Plans and Specifications (two to City, one Consultant) with Forms filled out by Consultant.
8. SEPA Checklist one pdf copy and one paper copy.
9. One set of 11- by 17-inch plans, one set of D-size plans and one set of 8.5- by 11-inch specifications collated but unbound for production by ADI.

COMMUNICATIONS ASSUMPTIONS

Meeting Summaries: Meeting summaries are typed for every meeting by the Consultant and sent to attendees as soon as practicable after a meeting. This is done so that all parties involved can verify that information in the summaries is complete and correct. An action list is included in each summary for verifying assignments regarding responsibilities for each of the project action items.

PROJECT SCHEDULE ASSUMPTIONS

The Preliminary Design, SEPA Checklist and Design Report will be completed approximately six weeks after the Contract for design services is signed and returned to RH2 by the City.

90 percent design and technical specifications, DOH Construction Approval submittal and building permit package will be completed approximately eight weeks after City approval of the preliminary design.

Final Design, Specifications and Construction Cost Estimate will be completed approximately six weeks after completion of the City review of the 90 percent package. This assumes that the DOH review and Building Official comments are received in a timely manner. Final design cannot be completed prior to receiving those comments with sufficient time for revisions to the plans. The bid ready documents will follow within one week, assuming the City has selected the bid opening date.

Exhibit C

REVISED DESIGN FEE ESTIMATE

Description	Principal	Project Manager	Project Engineer	Project Scientist	Staff Engineer	Word Processor	Total Hours	Total Labor	Subconst. Cost	Total Expense	Total Cost
PHASE 2											
Task 2.1 - DOH Design Report											
1 Project Description	-	-	2	-	-	-	2	\$ 226		\$ -	\$ 226
2 Planning Data	-	-	4	-	-	-	4	\$ 452		\$ 114	\$ 566
3 Design Report	-	-	12	-	-	-	20	\$ 2,126		\$ 338	\$ 2,464
Subtotal	2	-	18	-	-	6	28	\$ 2,804	\$ -	\$ 452	\$ 3,256
Task 2.2 - Site Cultural Resources Assessment											
1 Review Cultural Resource Databases	-	-	-	-	-	-	-	\$ -	APT \$ 1,035	\$ 0	\$ 1,035
2 On Site Archeological Study	-	-	-	-	-	-	-	\$ -	\$ 722	\$ 57	\$ 779
3 Archeological Assessment Report	-	-	-	-	-	-	1	\$ 113	\$ 5,320	\$ 0	\$ 5,433
4 Alternative Methods of Discovery Plan	-	-	1	-	-	-	-	\$ -	\$ 1,035	\$ 4	\$ 1,039
Subtotal	-	-	1	-	-	-	1	\$ 113	\$ 8,112	\$ 62	\$ 8,286
Task 2.3 - Site Geotechnical Investigation and Report											
1 Site Investigation	-	-	-	-	-	-	9	\$ 1,048		\$ 232	\$ 1,280
2 Review of On Site Data	-	-	4	-	-	-	8	\$ 1,028		\$ -	\$ 1,028
3 Engineering Geology and Geotechnical Tech Memo	1	-	16	8	-	4	29	\$ 3,422		\$ 286	\$ 3,708
Subtotal	1	-	28	13	-	4	46	\$ 5,498	\$ -	\$ 518	\$ 6,016
Task 2.4 - 60% Design											
1 Pump Selection Finalization	-	2	4	-	-	-	6	\$ 696	LSA	\$ 115	\$ 811
2 Power Supply Investigation	-	4	-	-	-	-	16	\$ 1,748		\$ 115	\$ 1,863
3 Meet with City to Review Design Criteria	-	-	3	-	-	1	4	\$ 416		\$ 141	\$ 557
4 Design Survey	-	-	8	-	-	-	11	\$ 1,191	\$ 17,848	\$ 623	\$ 19,662
5 50% Water Main Plans	-	-	10	-	-	-	38	\$ 4,216		\$ 614	\$ 4,830
6 50% Check Valves and PRV Station	-	-	10	-	-	-	24	\$ 2,984		\$ 414	\$ 3,398
7 50% Structural Layout	-	16	4	-	-	-	28	\$ 3,244		\$ 614	\$ 3,858
8 50% Mechanical Layout	-	-	24	-	-	-	40	\$ 4,392		\$ 614	\$ 5,006
9 50% Electrical Layout	-	8	-	-	-	-	18	\$ 5,176		\$ 428	\$ 5,604
10 50% Telemetry/Control Layout	-	2	9	-	-	-	15	\$ 1,924		\$ 437	\$ 2,362
11 50% Construction Cost Estimate	-	-	3	-	-	-	15	\$ 1,645		\$ 437	\$ 2,082
Subtotal	2	32	67	-	-	2	233	\$ 25,567	\$ 17,848	\$ 3,906	\$ 49,423
Task 2.5 - Final Design General, Site, Water Main, Mechanical											
1 Meet with City to Review 50% Plans and Costs	-	-	2	-	-	1	5	\$ 611		\$ 232	\$ 843
2 Finish General Plans to 90%	-	-	-	-	-	-	20	\$ 2,132		\$ 778	\$ 2,911
3 Finish Water Main Plans to 90%	-	-	-	-	-	-	28	\$ 3,036		\$ 528	\$ 3,564
4 Finish PRV and Check Valve Plan to 90%	-	-	6	-	-	-	18	\$ 1,938		\$ 778	\$ 2,716
5 Finish Site Plans to 90%	-	1	12	-	-	-	32	\$ 3,512		\$ 778	\$ 4,290
6 Finish Mechanical Plans and Details to 90%	-	12	18	-	-	2	31	\$ 3,312		\$ 550	\$ 3,862
Subtotal	2	2	48	1	-	3	134	\$ 14,541	\$ -	\$ 3,644	\$ 18,185
Task 2.6 - Final Design Stormwater											
1 TSSC Plan	-	-	8	-	-	-	14	\$ 1,612		\$ 215	\$ 1,827
2 Stormwater BMPs Plan	-	-	4	-	-	-	9	\$ 1,026		\$ 215	\$ 1,241
Subtotal	1	-	12	2	-	-	23	\$ 2,638	\$ -	\$ 429	\$ 3,067
Task 2.7 - Final Design Structural											
1 Finish Structural Plans to 90%	-	6	2	-	-	-	33	\$ 3,622		\$ 572	\$ 4,194
2 Finish Structural Calculations	-	4	-	-	-	-	17	\$ 1,861		\$ 168	\$ 2,029
3 Finish Structural Specifications to 90%	1	4	1	-	-	2	16	\$ 1,749		\$ 112	\$ 1,861

Description	Principal	Project Manager	Project Engineer	Project Scientist	Staff Engineer	Word Processor	Total Hours	Total Labor	Subconst. Cost	Total Expense	Total Cost
Task 2.8 - Final Design Electrical											
1 Finish Electrical Plans and Details to 90%	-	8	-	-	32	-	40	\$ 4,386		\$ 1,570	\$ 5,956
2 Finish Electrical Specifications to 90%	-	8	-	-	16	2	26	\$ 2,810		\$ 593	\$ 3,403
Subtotal	-	16	-	-	48	2	66	\$ 7,146	-	\$ 2,163	\$ 9,309
Task 2.9 - Final Design Telemetry/Control											
1 Finish Telemetry/Control Plans and Details to 90%	-	2	-	-	8		10	\$ 1,094		\$ 1,570	\$ 2,664
2 Finish Telemetry/Control Specifications to 90%	-	8	-	-	8	2	18	\$ 1,970		\$ 593	\$ 2,563
Subtotal	-	10	-	-	16	2	28	\$ 3,054	-	\$ 2,163	\$ 5,217
Task 2.10 - Final Design Specifications											
1 Technical Specification Generation	1	-	18	-		16	36	\$ 3,564		\$ 172	\$ 3,736
2 Finalize Construction Cost Estimate	1	-	8	-	1	10	10	\$ 1,135		\$ 9	\$ 1,144
3 Copy of 90% Plans and Specifications to City	1	1	3	-	-	9	9	\$ 923		\$ 331	\$ 1,254
Subtotal	3	1	29	1	-	4	55	\$ 5,622	-	\$ 512	\$ 6,134
Task 2.11 - Permitting											
1 DOH Construction Approval Submittal	1		6			6	13	\$ 1,294		\$ 814	\$ 2,108
2 SEPA Checklist	1	2	6	-		4	7	\$ 827		\$ 79	\$ 906
3 City of Blaine Building Permit Submittal	3	2	16	1	-	11	13	\$ 1,384		\$ 462	\$ 1,846
Subtotal	3	2	16	1	-	11	33	\$ 3,505	-	\$ 1,355	\$ 4,860
Task 2.12 - Production											
1 Finalize Plans Based on City and DOH Comments	1	2	8	-	-	4	15	\$ 1,610		\$ 1,595	\$ 3,205
2 Produce 1 11x17, 1 D-size, 1 specification	1	-	2	1	-	2	6	\$ 678		\$ 475	\$ 1,153
3 Provide 1 Addendum	1	-	4	-	-	2	8	\$ 865		\$ 62	\$ 927
Subtotal	3	2	14	1	1	6	29	\$ 3,153	-	\$ 2,132	\$ 5,285
Task 2.13 - Services During Bidding and Bidder Evaluation											
1 Review Contractor References			4	-		1	4	\$ 452		\$ -	\$ 452
2 Recommend Award	-	-	8	-	-	-	5	\$ 529		\$ 11	\$ 540
Subtotal	-	-	8	-	-	-	9	\$ 981	-	\$ 11	\$ 992
Phase 3 Services During Construction Costs To Be Determined Following Completion of Phase 2											
TOTAL TASKS PHASE 2	18	81	253	20	329	63	764	\$ 83,519	\$ 25,960	\$ 18,634	\$ 128,113

Exhibit C

UPDATED SCHEDULE OF RATES & CHARGES

EXHIBIT C

RH2 Engineering

SCHEDULE OF RATES AND CHARGES

HOURLY RATES

CLASSIFICATION		RATE	CLASSIFICATION		RATE
Principal	IX	\$161.00	Technician	IV	\$102.00
Principal	VIII	\$161.00	Technician	III	\$94.00
Principal	VII	\$154.00	Technician	II	\$68.00
			Technician	I	\$62.00
Professional	VI	\$144.00			
Professional	V	\$135.00	Administrative	V	\$95.00
Professional	IV	\$122.00	Administrative	IV	\$77.00
			Administrative	III	\$63.00
Professional	III	\$113.00	Administrative	II	\$51.00
Professional	II	\$105.00	Administrative	I	\$43.00
Professional	I	\$95.00			

IN-HOUSE SERVICES

In-house copies (each)	8 1/2" X 11"	\$0.07	CAD Plots	Large	\$10.00
In-house copies (each)	8 1/2" X 14"	\$0.08	CAD Plots	Full Size	\$5.00
In-house copies (each)	11" X 17"	\$0.14	CAD Plots	Half Size	\$2.00
In-house copies (color) (each)	8 1/2" X 11"	\$0.85	GIS System	Per Hour	\$10.00
In-house copies (color) (each)	8 1/2" X 14"	\$1.50	GIS Plots	Per Plot	\$5.00
In-house copies (color) (each)	11 X 17"	\$1.70	In-house Computer	Per Hour	\$9.00
FAX (each sheet)		\$1.00	Mileage	Per Mile	\$0.445
In-house CAD System	Per Hour	\$25.00	Digital Camera	Per Day	\$10.00
			Digital Camera	Per Week	\$30.00
			Digital Camera	Per Month	\$90.00

*Note: At project completion all digital photos can be supplied to the client on CD, upon request.

PURCHASED SERVICES

All purchased printing, copying, miscellaneous and subconsultant services are billed at cost plus 15%.

CHANGES IN RATES

Rates listed here are adjusted annually. The current, most recent schedule of hourly rates are used for billing purposes. Payment for work accomplished shall be on the basis of hourly rates in effect at the time of billing plus direct expenses and outside services as stated in this Exhibit.