AM NO. 10-080 (C.11)

MEMO TO: City Council

FROM: John Marchione, Mayor

DATE: April 20, 2010

SUBJECT: APPROVAL OF SUPPLEMENTAL CONSULTANT AGREEMENT NO. 1

FOR ENGINEERING DESIGN AND CONSTRUCTION SERVICES FOR WASTEWATER PUMP STATION NO. 1 REHABILITATION, PROJECT

NO. 101377

I. RECOMMENDED ACTION:

Approve Supplemental Consultant Agreement No. 1 for additional engineering services for Wastewater Pump Station No. 1 Rehabilitation, Project No. 101377, with BHC Consultants, for an amount not to exceed \$289,000, and authorize the Mayor to sign the agreement.

II. DEPARTMENT CONTACT PERSONS:

Bill Campbell, Director of Public Works	425-556-2733
Ron Grant, Assistant Public Works Director/City Engineer	425-556-2742
Phil Day, Project Manager	425-556-2860

III. DESCRIPTION:

Wastewater Pump Station No. 1 is located along the western shoreline of Lake Sammamish near the 2400 block of West Lake Sammamish Parkway. It is the City's southernmost pump station, and serves approximately 24 lots in the Viewpoint Basin.

Located at the base of a steep bank, this pump station is in close proximity to waterfront homes. Access to the station is limited and there is no direct vehicle access by land.

The existing pump station was built in the early 1970's and is in need of extensive rehabilitation. Minor maintenance work has been done to the station over the nearly 40-year service-life but the station is in poor condition and needs to be upgraded. The rehabilitation work will include a condition assessment of the station, the replacement of pumps, controls, electrical panel, and other items identified by the assessment.

City Council approved the selection of BHC Consultants, LLC, for the preliminary design of this project at the December 1, 2009, meeting. To date, BHC has prepared an

City Council April 20, 2010 Approval of Supplemental Agreement No. 1 for Engineering Services Wastewater Pump Station No. 1 Rehabilitation Page 2

assessment and preliminary design, site survey, identified necessary permits, and created a project schedule.

The scope of work for this supplemental consultant agreement includes permit acquisition, final design including preparation of construction plans, specifications, and estimates, and construction services.

IV. IMPACT:

A. <u>Service/Delivery:</u>

This Supplemental Consultant Agreement No. 1 will provide additional engineering services for the design and construction phases of the Wastewater Pump Station No. 1 Rehabilitation project.

B. <u>Fiscal:</u>

Project Costs

Design Consultant – BHC Consultants, L.L.C.

Preliminary Design Study	\$ 85,000
Supplemental Agreement No. 1	289,000
City Administration	60,000
Total	\$434,000

Project Funding:

Water/Wastewater C.I.P. \$434,000

V. ALTERNATIVES:

City Council could choose not to approve the agreement. However this action would delay final design and construction of the project.

VI. TIME CONSTRAINTS:

The final design needs to be completed during the spring of this year in order for construction to take place in 2010.

Begin Final Design	April, 2010
Begin Construction	July, 2010
Complete Construction	December, 2010

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Approval of Supplemental Agreement No. 1 for Engineering Services
Wastewater Pump Station No. 1 Rehabilitation
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VII.	LIST	\mathbf{OE}	ΔΤΤΔ	CHI	MENTS:
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VII.	LIS	I OF ATTACHMEN	NTS:	
	A.	Vicinity Map		
• •		Supplemental Con-	sultant Agreement No. 1	
		/s/		4/12/10
Willia	am J. C	Campbell, Director of	Public Works	Date
Appro	oved fo	or Council Agenda	Jane Christenson for	<u>4/12/10</u>
_		_	John Marchione, Mayor	Date

ATTACHMENT A



VICINITY MAP

ATTACHMENT B

Wastewater Pump Station No. 1 Rehabilitation Project No. 101377

SUPPLEMENTAL AGREEMENT NO. 1

This SUPPLEMENTAL AGREEMENT, made and entered into this day of	, 2010
between the City of Redmond, Washington, hereinafter called the CITY, and	_, hereinafte
called the CONSULTANT, amends an earlier Agreement (AGREEMENT) dated December	9, 2009.
WHEREAS the CITY desires to supplement the original AGREEMENT;	

NOW THEREFORE, it is mutually agreed that the terms, stipulations, and conditions of the original AGREEMENT shall be binding upon the parties hereto except insofar as amended by this SUPPLEMENTAL AGREEMENT as follows:

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Section II, SCOPE OF WORK, is amended by the additional tasks summarized in Exhibit A-1 attached hereto.

II

Section IV, TIME FOR BEGINNING AND COMPLETION, is amended to change the completion date for all work to read March 1, 2011.

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Section V, PAYMENT, shall be amended to compensate the CONSULTANT for the work described in Exhibit A-1.

A breakdown of the CONSULTANT'S cost proposal is attached hereto as Exhibit B-1. By this reference the exhibit is made a part of this SUPPLEMENTAL AGREEMENT.

Summarized below are the costs as listed in the original AGREEMENT and as modified by this SUPPLEMENTAL AGREEMENT.

Summary					
Description	Original	Supplement	Supplement	Total	
	Agreement	No. 1	No		
Labor Cost	\$72,781	\$259,477		\$332,258	
Reimbursables	950	2,900		3,850	
Total	73,731	262,377		336,108	
Contingency	11,269	26,623		37,892	
Grand Total	\$85,000	\$289,000		\$374,000	

Wastewater Pump Station No. 1 Rehabilitation Project No. 101377 Page 2

EXECUTION

IN WITNESS WHEREOF, the parties have executed this SUPPLEMENTAL AGREEMENT by having their representatives affix their signatures below.

BHC Consultants, LLC	CITY OF REDMOND
By	By John Marchione, Mayor
(Title)	
	Attested:
	ByCity Clerk
	Approved as to Form:
	By

Rev: 2/16/07

EXHIBIT A-1

SCOPE OF SERVICES Pump Station No. 1 Rehabilitation Design Services and Services During Construction

At the request of the City of Redmond, the scope of services below has been developed prior to completion of the preliminary design work for the Pump Station No. 1 Rehabilitation project. Assumptions have been made in each area of design. If the preliminary design determines design features greater than the assumed efforts, it may be necessary to amend this scope of services.

Task A: Project Management

- 1. Coordinate with City staff by regular status reports, status meetings, telephone communication, and e-mail during the course of the project.
- 2. Provide City Project Manager with schedule in electronic format. Update schedule on a monthly basis and provide updates to City Project Manager together with monthly status reports.
- 3. Establish quality assurance program for the project and conduct quality control reviews.
- 4. Prepare monthly invoices and submit to City for payment.

Deliverables:

- Monthly Status Reports with Invoices
- Electronic version of Schedule

TASKS B THROUGH E ARE FOR DESIGN SERVICES

Task B: Plans, Specifications, and Opinions of Probable Cost

- 1. Prepare 75 percent detailed construction drawings in accordance with City of Redmond Standard Specifications and Standard Plans, as appropriate.
- Prepare 75 percent general requirements. The general requirements will be prepared using the City of Redmond Standard General Requirements in accordance with the 2010 WSDOT Specifications addressing the following:
 - a. Sequence of Construction
 - b. Measurement and Payment
 - c. Project Data Submittals
 - d. Testing and Quality Control
 - e. Facility Startup and Testing
- 3. Prepare 75 percent technical specifications. Technical specifications will be prepared in accordance with City of Redmond 2010 WSDOT Standard Specifications with additional requirements where necessary. Technical specifications will include sections necessary to define and control the construction materials and appropriate methods and will use the WSDOT numbering format.
- 4. Develop opinion of probable construction cost for the facilities included in the 75 percent design documents.

- 5. Conduct in-house quality control review of the 75 percent drawings, specifications, and opinion of probable cost.
- 6. Submit 75 percent design documents to the City for review.
- 7. Meet with City staff to review the 75 percent design documents.
- 8. Incorporate City review comments and prepare 100 percent design.
- 9. Develop opinion of probable construction cost for the facilities included in the 100 percent design documents.
- 10. Conduct in-house quality control review of the 100 percent drawings, specifications, and opinion of probable cost.
- 11. Submit 100 percent design documents to the City for review.
- 12. Meet with City staff to review the 100 percent design documents.
- 13. Revise City Bidding documents. Provide "track changes" markups to the City indicating revisions to the documents. Prepare bid schedule for inclusion in the bidding documents.
- 14. Incorporate City review comments and prepare final contract documents.
- 15. Develop opinion of probable construction cost for the facilities included in the final contract documents.
- 16. Submit final contract documents to the City for review.
- 17. Print 8 sets of specifications with half-size drawings and 5 sets of full size drawings and deliver to City. Following approval by the City, Set up the distribution of plans and specifications electronically using the City's access to Builders Exchange.

Deliverables:

- 75 percent plans and specifications and opinion of probable cost
- 100 percent plans and specifications and opinion of probable cost
- Final contract documents including opinion of probable cost
- Meeting Minutes (following each meeting with City staff)
- Permit Applications suitable for submittal

Assumptions and Limitations:

- The selected pump is the Hydromatic S4NVX submersible pump with rail system.
- Design configuration will be as identified in the "Pump Station Layout" and "Temporary Bypass Pumping" design memoranda and subsequent discussions with the City.
- Public involvement assistance will be limited to development of presentation materials for use at a public open house.
- City staff will be primary contacts for Design Review.

Task C: Permitting

- 1. Prepare the following permit applications:
 - a. Shoreline Management Substantial Development Permit Exemption
 - b. Hydraulic Project Approval (HPA)
 - c. State Environmental Policy Act (SEPA)
 - d. Assist the City with preparing the Building Permit.
- 2. Submit above permit applications and follow-up on permitting issuance.

Deliverables:

• Permit Applications.

Assumptions and Limitations:

- No Redmond Municipal Code 20D.140 Critical Areas permit will be required.
- No Department of Ecology permits are required.

Task D: Electrical, Instrumentation, and Controls Design Services (Casne Engineers, Inc.)

Area 1 - Pump Station Site

- 1. Provide design of the new above grade power and control panel. The new power and control panel will include the City's existing RTU configuration and pump starters, instrumentation and control. The standard arrangement and housing will be similar to Redmond PS 7 or Trilogy PS 57.
- 2. Provide a pump station electrical site plan and elevations to locate all pump, level sensors, floats and other instrumentation and control devices and conduit routing to the power and control panel.
- 3. Detail the City's existing RTU configuration from the PS at lake level.
- 4. Develop specifications for all power, instrumentation, control and telemetry monitoring.
- 5. Develop opinions of probable costs for 75% and final design.

Area 2 - Service Equipment on W Lake Sammamish

For final electrical design purposes, this area of the design is limited to coordination with PSE for final service and metering, service equipment and manual transfer switch and receptacle.

- 6. Coordination with PSE for the final service transformer, conductors and metering.
- 7. Provide design of service equipment including service disconnect and grounding and transient voltage surge protection.
- 8. Design the Manual Transfer Switch (MTS) and generator receptacle for temporary connection of standby power.
- 9. Develop opinions of probable costs for 75% and final design.

Area 4 - Provide New Conduit down the Hill

Since the existing power feeder is direct buried and was installed in the 1970s, we are assuming this portion of work will have to be done to establish a long term service. The existing conductors are assumed to be at the end of their useful life and will need to be replaced. It is assumed that the conduit will be installed in an open trench down the hillside from West Lake Sammamish Parkway to the shore of Lake Sammamish.

- 10. Investigate and gain local approval for running power and water in the same chase way
- 11. Design separation of power and monitoring conduits from water piping at the top and bottom of the chase.
- 12. Develop opinions of probable costs for 75% and final design.

Task E: Assistance with Bidding and Award

- 1. Address bidders' and suppliers' questions during the bid period.
- 2. Prepare addenda, if necessary, and deliver to City for distribution.
- 3. Prepare for and attend pre-construction conference.
- 4. Prepare bid tabulation.
- 5. Review apparent low bidder's bid documents and prepare recommendation for award.

Deliverables:

- Advertisement for newspaper
- Addenda (if required)
- Bid Tabulation
- Recommendation for Award

Assumptions and Limitations:

- Two (2) addenda are included in the budget for this work.
- There will be emergency generator; the portable generator connection and transfer switch will be located near West Lake Sammamish Boulevard.

TASKS F THROUGH L ARE FOR SERVICES DURING CONSTRUCTION

<u>Task F: Electrical, Instrumentation, and Controls Services During Construction (Casne Engineers, Inc.)</u>

- 1. Submittal Reviews: review required submittals for conformance to the drawings and specifications. Issue comments on submittals.
- 2. Contractor questions: Answer questions and respond to RFIs during construction.
- 3. Shop Testing: Provide a shop test checklist and inspect panels per the contract and submitted drawings. Test all wiring and PLC I/O.
- 4. Startup Testing: Test all field wiring and review all grounding, cable and motor test reports. Thoroughly operate station and test all features back to the Control Panel and Master Telemetry.
- 5. Record Drawings: incorporate contractor red lined drawings and RFIs and change orders onto the drawings. Provide Cad files to the City.

Assumptions and Limitations:

- Two (2) submittal reviews are included in the budget for this work.
- Six (6) RFIs responses are included in the budget for this work.

Task G: Request for Information (RFI) Reviews

1. Respond to City and Contractor questions during the course of construction. This effort includes technical interpretation of the contract drawings and specifications and providing written clarification of the contract documents. The fee for this task assumes fifteen (15) RFIs.

Assumptions and Limitations:

Fifteen (15) RFIs are included in the budget for this work.

Task H: Submittal Reviews

Review shop drawings, diagrams, catalog data, schedules and samples, the results
of tests and inspections, and other data, which the Contractor is required to submit
per the Contract Documents. These will be reviewed for general conformance with
the project design concept and general compliance with the information given in the
Contract Documents. Such review is not intended as an approval of the submittals if

they deviate from the Contract Documents or contain errors, omissions and inconsistencies, nor is it intended to relieve the Contractor of their full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements. A written response to Contractor's submittals will be included with reviewed submittals. The fee for this task assumes twenty five (25) submittals. It assumes there will be no more than one re-submittal for each submittal and that the cost to review re-submittals after the first re-submittal is extra work not included in this scope of work. The City may deduct cost of the extra work from amounts payable to the Contractor, per specification requirements.

Assumptions and Limitations:

• Twenty five (25) submittal reviews are included in the budget for this work.

Task I: Construction Meetings and Periodic Field Observation

- 1. Attend weekly coordination meetings with the City and the Contractor. Prepare draft meeting minutes and attendees list and submit in PDF format to the City for review within 5 working days of construction meeting. Incorporate City comments and submit final meeting minutes and attendees list within 5 days of receiving City comments. Attendance at ten (10) construction meetings is assumed.
- 2. The Project Manager and Engineering staff will provide periodic observation of the construction on an as-needed basis or as requested by the City's project manager to review and respond to design related issues. The fee estimate for this task is based on ten (10) site visits.

Deliverables:

Meeting minutes.

Assumptions and Limitations:

- Attendance at ten (10) construction meetings is included in the budget for this work.
- Ten (10) site visits are included in the budget for this work.

Task J: Change Proposal Assistance

1. Assist the City in the development of change proposals as requested by the City's project manager. The fee for this task assumes two (2) Change Proposals.

Assumptions and Limitations:

Assistance with two (2) Change Proposals is included in the budget for this work.

Task K: Record Drawings

1. Post Construction Survey:

a. Field locate Pump Station No. 1, power service connection, generator (if applicable), service access (if applicable), conduit, and waterline (if applicable)

b. Prepare Base map in Auto-Cad format for insertion into original mapping.
Review the record drawings submitted by the Contractor to confirm that they comply with the intent of the project specifications. Revise design drawings to incorporate record drawing survey and revisions identified by the Contractor and the City's inspection staff. Print record drawing hard copies in accordance with City of Redmond standards.

Deliverables:

- Post Construction Base Map
- Record Drawings

Assumptions and Limitations:

- Contractor is to provide all surveying for construction.
- The pump station rehabilitation work is to be constructed per the plans and specifications. It is the Contractor's responsibility to identify any deviations or changes from the plans and specifications.

Task L: Electronic Operations and Maintenance (O&M) Manual

- 1. Prepare a 75 percent O&M manual for City of Redmond review. The O&M manual will include an overview of the pump station operation and maintenance, and supplemental information that will include manufacturer's information on the various equipment at the pump station.
- 2. Incorporate City of Redmond review comments and issue a final manual.
- 3. Provide electronic O&M Manuals including record drawings in the established format. This portion of work will be performed by Casne Engineering, Inc.

Deliverables:

- Two (2) three-ring bound hard-copies of the 75 percent O&M Manual for review.
- One (1) three-ring bound hard-copy of the Final O&M Manual and one set of PDF files.
- CD-ROM with updated Electronic O&M Manual including Pump Station No. 1 Rehabilitation

Assumptions and Limitations:

• Attendance at one (1) review meeting is included in the budget for this work.

Exhibit B-1

Consultant Fee Determination

Project Name: PS No. 1 Rehabilitation - Design

Project Number:

Consultant: BHC Consultants

NEGOTIATED HOURLY RATES

Classification	<u>Hours</u>	<u>Rate</u>	Cost
Project Principal (Ron Dorn)	182	\$200	\$36,400
QA/QC (Reed Kelly)	16	\$183	2,837
Sr. Structural Engineer (Jim Lutz)	114	\$200	22,800
Project Manager (Adam Schuyler)	542	\$147	79,674
Permitting (Greg Waddell)	68	\$129	8,772
Staff Engineer (Noah Allen)	244	\$95	23,180
CAD Support (Patti Simon)	332	\$124	41,168
Clerical Support (Melanie Robinson)	110	\$72	7,920
Subtotal:	1,608		\$222,751

REIMBURSABLES

Mileage Reproduction (copies, plots, etc.) Miscellaneous		\$900 \$1,500 \$500
	Subtotal:	\$2,900

SUBCONSULTANT COSTS (See Exhibit C-1)

Casne Engineering, Inc. KPG, Inc.		\$33,576 \$3,150
	Subtotal:	\$36,726

TOTAL \$262,377

CONTINGENCY 26,623

GRAND TOTAL \$289,000

EXHIBIT C-1

Subcontracted Work City of Redmond Pump Station No. 1 Rehabilitation BHC Consultants

The CITY permits subcontracts for the following portions of the work of the AGREEMENT:

SUBCONSULTANT	WORK DESCRIPTION		,	AMOUNT
Casne - Design Services	E&IC		\$	33,576.00
KPG, Inc.	Post-Construction Survey		\$	3,150.00
		Total =	\$	36,726.00