

## **SULTAN CITY COUNCIL AGENDA ITEM COVER SHEET**

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**ITEM NO:** A-5

**DATE:** February 26, 2009

**SUBJECT:** Amendment #6 with Brown and Caldwell for the Centrifuge Design, Contract and Construction Management

**CONTACT PERSON:** Connie Dunn, Public Works Director

**ISSUE:**

The issue before the City Council is to authorize the Mayor to sign contract amendment #6 (Attachment A) in an amount not to exceed \$85,000 with Brown and Caldwell to provide project management, submittal review, change order preparation, and on-site field inspection during construction of the Centrifuge Project at the Wastewater Treatment Plant (WWTP).

The amendment also includes \$5,700 for technical assistance with grant applications and funding efforts with state and federal legislatures and a \$6,700 contingency.

**STAFF RECOMMENDATION:**

Authorize the Mayor to sign contract amendment #6 with Brown and Caldwell in an amount not to exceed \$85,000 to cover services during construction, contingency and WWTP program services.

**SUMMARY:**

The design of the Centrifuge Project was completed by Brown and Caldwell in November 2008, and on December 11, 2008, the City Council approved award of the construction contract to Triad Mechanical for \$637,748.90.

Recently Brown and Caldwell have been dealing with contract issues between Triad and Alfa Laval. To cover this sort of effort and organize for the construction phase of this project, city staff recommend contracting with Brown and Caldwell for construction management services to assist the City with construction phase of work.

Effectively amendment #6 uses a portion of the Task 999 Contingency Funds that remain in the original contract with Brown and Caldwell, but not yet authorized by the City Council. The "background" section of this report provides a summary of the overall contract budget with Brown and Caldwell.

Amendment #6 provides for services during construction of the centrifuge project, including submittal review, office engineering (respond to requests for information), change order preparation and on-site field services to ensure the project is constructed in accordance with the bid documents. In addition, this amendment covers cost for

revising the WWTP's operation and maintenance (OM) manual to address the modified solids handling system. An upgraded OM manual is a requirement of the Department of Ecology (DOE).

Because of the construction schedule constraints, it is important to make sure that services during construction are contracted before March 1, 2009. It is expected that the contractor will be issuing the first submittals for review around this time.

A summary of each of the contract tasks is provided in the scope of work which is attached to amendment #6.

<b>Phase of Project</b>	<b>Estimated Hours</b>	<b>Estimated Cost</b>
Phase 100 Project Management	40	\$7,500
Phase 200 Submittal Review	80	\$12,500
Phase 300 Miscellaneous Office Engineering	40	\$12,500
Phase 400 Change Order Preparation	40	\$6,000
Phase 500 On-site Field Services	176	\$30,000
Phase 600 OM Manual	30	\$4,200
<b>Services During Construction Total</b>		\$72,700
<b>Phase 199 Contingency Total</b>	40	\$6,700
<b>Phase 700 WWTP Program Services Total</b>	32	\$5,700
<b>Project Total</b>		\$83,800

## **BACKGROUND:**

The overall WWTP upgrade design was advanced to about the 50 percent completion level in April of 2008. About this time, the City experienced a downturn in housing development activity. The City Council reassessed the viability of continuing with the full upgrade project. In the course of this reassessment, the City Council determined in May 2008 that the sensible approach would be to re-phase the project.

The first phase approved by the City Council focused on lowering the City's operating costs by installing one of the centrifuges necessary for the WWTP upgrade. On August 28, 2008, the City Council approved amendment #5 with Brown and Caldwell for \$84,888 and reallocated the remaining design funds (\$629,197) to cover the centrifuge design, public works trust fund loan modifications and binding the 50% complete design. The remaining balance of \$544,309 was allocated to the contingency fund for other Council approved tasks.

The original cost estimate was based on Alfa Laval's earlier work with the City and assumed no structural building modifications would be required for the new centrifuge. As the design progressed, it became clear that for reasonable operations and maintenance procedures associated with the centrifuge, a monorail system would be required.

During an October 23, 2008 centrifuge project meeting city staff requested the following out-of-scope items:

1. Layout of monorail system to remove the scroll.
2. Selection of the hoist for the monorail.
3. Design of the structure for the monorail.
4. House keeping pads for feed pump, control panel and polymer feed equipment.
5. Support of screw conveyor at drive end.
6. Reinforcement and detailing for relocated hole for screw conveyor.
7. Adding Steel specification. No steel was in the original scope.

Based on the City's upfront work on this design project and a good working relationship with the City, the design was efficiently developed and these additional scope items were completed within the overall design fee.

The table below is from amendment #5.

	<sup>1</sup> Budget (Before Amendment #5)	Revised Budget (After Amendment #5)
Task 101 – Project Management during Design	\$132,565	\$8,259
Task 241 – Permitting Assistance during Design	\$44,428	0
Task 242 – Dilution Study	\$34,621	0
Task 243 – Lab Training	\$3,366	0
Task 244 – Ambient River Sampling	\$13,300	0
Task 301 – Financing Assistance during Design	\$18,949	\$2,893
Task 302 – Financing Assistance for Developers Agreements (Optional)	\$33,455	0
Task 310 – Community Involvement	\$10,981	0
Task 400 – Centrifuge Design	0	\$48,696
Task 490 – Centrifuge Bid Period Services	0	\$7,139
Task 500 Series – 30 Percent Design of the Sultan WWTP Upgrade	\$364,087	0
Task 600 – 60 Percent Design of the Sultan WWTP Upgrade	\$251,896	\$17,901
Task 700 Series –90 Percent Design of the Sultan WWTP Upgrade	\$265,555	0
Task 800 – 100 Percent Design and Bid Documents Preparation	\$263,174	0
Task 900 – Bid Period Services	\$20,328	0
Task 000 – Unauthorized Funds	\$38,873	0
<b>Total</b>	<b>\$1,495,578</b>	<b>\$84,888</b>
Total Remaining Budget (as of August 14, 2008)	\$629,197	\$84,888
<sup>2</sup> Task 999 – Contingency Funds	0	\$544,309

The work for amendment #5 began around October 1, 2008. To date, Brown and Caldwell have completed Amendment No. 5 Tasks 101, 301, 400 and 490, which covered the centrifuge design and bid period, as well as a little time for financing assistance. The only task that has not been completed is Task 600, which included effort for producing 50% hard copy documents of the full plant upgrade.

Therefore, to date the remaining authorized amount in amendment #5 to the Brown and Caldwell contract is about \$17,000, roughly the amount budgeted for developing hard copies of the 50% docs. Unless otherwise directed, Brown and Caldwell will begin the Task 600 work.

### **FISCAL IMPACT:**

The City has \$500,000 budgeted in 2009 for short-term improvements to the waste water treatment plant. This funding is a reimbursement grant from the 2008 state capital budget. The City will seek reimbursement from the Department of Ecology as funds are expended on the project.

The bid awarded to Triad Construction by the City Council on December 11, 2008 was \$637,748. If Amendment #6 is approved by the City Council, construction management could add another \$85,000 to the overall project cost for a total of \$722,748.

The City has several alternatives:

- 1) Amend the capital budget and use ending fund balance and/or delay other projects. This is the “pay-as-you-go” alternative and would keep the City from incurring additional debt.
  - LID-97 (\$100,000)
  - Inflow and infiltration study (\$50,000)
  - 12’ Force Main (\$30,000)
  - Ending fund balance (\$95,000)
- 2) Take the remaining \$250,000 “draw” on the \$1,000,000 public works trust fund loan for the WWTP project design. The City is currently making its loan payments on the \$750,000. The final draw would add approximately \$50,000 in debt service payments over the next 5 years.
- 3) Seek stimulus loans and grants through the Department of Ecology. The Department of Ecology has just issued a call for projects through the State Revolving Fund (SRF). Project applications are due on February 27, 2009. The City could seek all or part of the \$1.3 million needed to complete the centrifuge installation, NEPA/SEPA reports and WWTP Upgrade design.
- 4) Seek assistance funding from the 2009 legislature. Cities across the state and as close to home as Snohomish, Duvall and Carnation have received assistance from the State of Washington to complete sewer plant improvements.
- 5) Pursue a combination of the above alternatives.

There are sufficient funds available in the short-term to approve amendment #6 with Brown and Caldwell. City staff recommend pursuing a combination of the above

alternatives. Staff will return to Council with a discussion of funding strategies at the March 12, 2009 Council meeting.

**ALTERNATIVES:**

1. Authorize the Mayor to sign Amendment #6 with Brown and Caldwell to cover these tasks. The total amount for Amendment #6 is not to exceed \$85,000. This alternative implies the Council is prepared to move forward with installation of the centrifuge in 2009 and is comfortable with discussing funding alternatives for the project on March 12, 2009.
2. Do not authorize these tasks. Do not authorize the Mayor to sign amendment #6 with Brown and Caldwell and direct staff to areas of concern. This alternative indicates the Council has serious questions or concerns about the scope of work, project cost estimates or overall project funding. The Council could choose to delay approval of amendment #6 until the March 12, 2009 meeting. The project could be delayed slightly as a result of Council action.
3. Do not authorize the Mayor to sign amendment #6. The action implies the City Council has serious concerns about the proposed scope of work and/or installation of the centrifuge.

**RECOMMENDED ACTION:**

Authorize the Mayor to sign contract amendment #6 with Brown and Caldwell in an amount not to exceed \$85,000 to cover services during construction, contingency and WWTP program services.

**ATTACHMENTS**

ATTACHMENT A                      Brown and Caldwell Amendment #6

AMENDMENT NO. 6 TO  
AGREEMENT FOR CONSULTING SERVICES  
BETWEEN THE CITY OF SULTAN, WASHINGTON  
AND BROWN AND CALDWELL  
FOR SERVICES DURING CONSTRUCTION OF THE CENTRIFUGE PROJECT

THIS AMENDMENT NO. 6 to the Agreement for Consulting Services dated January 27, 2006, between the City of Sultan, a Washington Municipal corporation, hereinafter referred to as "City", and Brown and Caldwell, a California corporation, hereinafter referred to as "Consultant," is made and entered into this 1st day of March, 2009.

WHEREAS, City and Consultant entered into an Agreement for Consulting Services dated January 27, 2006 (hereinafter referred to as the "Agreement"); and

WHEREAS, City and Consultant amended this Agreement by means of Amendment No. 1 on \_\_\_\_\_ to create the Engineering report, and

WHEREAS, City and Consultant amended this Agreement by means of Amendment No. 2 on \_\_\_\_\_ to develop a detail design for the Waste Water Treatment Plant, and

WHEREAS, City and Consultant amended this Agreement by means of Amendment No. 3 on \_\_\_\_\_ to provide financial assistance (Task 3.02) to the City by means of developer's agreement, and

WHEREAS, City and Consultant amended this Agreement by means Amendment No. 4 on July \_\_\_\_ 2007 to subcontract with Cosmopolitan Engineering to perform ambient river sampling to satisfy NPDES permit requirements, and

WHEREAS, on May 29, 2009 the City Council reassessed the viability of continuing with the full upgrade project and in the course of this reassessment determined the sensible approach would be to re-phase the project; and

WHEREAS, The first phase approved by the City Council focused on lowering the City's operating costs by installing one of the centrifuges necessary for the WWTP upgrade; and

WHEREAS, City and Consultant amended this Agreement by means of Amendment No. 5 on August 28, 2008 to cover the centrifuge design, public works trust fund loan modifications and binding the 50% complete design, and

WHEREAS, City has requested changes in the original and amended scope of services called for in the Agreement;

NOW, THEREFORE, City and Consultant agree to Amendment 6 to provide services during construction of the centrifuge projects:

**Section I. SCOPE OF CONSULTING SERVICES**

The scope of services in the Agreement is amended by adding the services described in Exhibit A, and attached hereto, to the services described in the original Agreement.

**Section II. SCHEDULE**

Consultant is authorized to proceed with the modified scope of services effective on the date of this amendment. The modified scope of services shall be performed in accordance with the schedule attached as Exhibit B.

### **Section III. COMPENSATION**

Compensation for the services provided under Article I of this amendment shall be calculated on the same basis as in the Agreement. The labor hours and cost estimates for completing the services defined in this Amendment are shown in Exhibit C. The estimated compensation for the services performed under this Amendment is \$85,000 which will not increase the total estimated compensation under the Agreement.

### **Section IV. EFFECT OF ADDENDUM**

This Addendum No 6 is in addition to the Agreement. Except as otherwise provided herein, the provisions of this Addendum No 6 modify, but do not supersede the provisions of the Agreement. Except as otherwise provided herein, each provision of the Agreement shall continue in full force and effect as if this 1<sup>st</sup> Addendum did not exist. Except as otherwise provided herein, capitalized words and phrases shall have the meanings ascribed to them in the Agreement.

**IN WITNESS WHEREOF**, the parties have caused this Addendum to be signed and executed this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

**CITY OF SULTAN:**

**CONTRACTOR:**

By: \_\_\_\_\_  
Mayor Carolyn Eslick

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Taxpayer I D Number: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_

**ATTEST/AUTHENTICATED:**

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
City Clerk

By: \_\_\_\_\_  
Office of the City Attorney

CITY OF SULTAN

SERVICES DURING CONSTRUCTION (SDC) OF THE CENTRIFUGE PROJECT

EXHIBIT A

SCOPE OF WORK

The Scope of Work provided in this Exhibit is for services during construction of the Centrifuge Project. In addition, this Scope of Work addresses miscellaneous tasks to assist the City with advancing the wastewater treatment plant (WWTP) upgrade program.

The Scope of Work for this Project assumes that all construction activities will occur on the existing WWTP site and will be completed by December 31, 2009. Although the expected Centrifuge Project construction duration is about 8 months, the majority of the construction will be concentrated in a 30-day period around September/October 2009.

The specific elements of the work in this Agreement are subdivided into the following phases:

<b>Phase</b>	<b>Title</b>
<b>Services During Construction</b>	
100	Project Management
200	Submittal Review
300	Miscellaneous Office Engineering
400	Change Order Preparation
500	Field Services
600	OM Manual
<b>Contingency</b>	
199	Contingency
<b>WWTP Program Services</b>	
700	WWTP Program Services

## **Phase 100     Project Management for Services During Construction**

**Objective.** To manage, administer, and provide ongoing coordination for efficient utilization of resources for the Project. This task includes technical and financial management of the contract, liaison with the City Public Works staff and WWTP operations staff. This task also includes providing accounting and providing activity status reports for all work associated with the Project.

**Approach.** This task includes the following activities:

1. Update the Project Management Plan that documents consultant staff roles and responsibilities, presents the project communications plan, describes document control procedures, describes contract deliverables and their scheduled completion dates, describes quality control procedures, and describes cost control management and reporting procedures.
2. Manage staff and provide ongoing coordination for efficient utilization of resources for the entire project.
3. Prepare input to monthly invoices, including backup materials, progress reports, and updated project schedules. Monthly invoices are to be submitted by the 15th of every month for work done at the end of the prior month.
4. Monitor scope and progress and identify scope changes that impact the project budget and schedule. Notify and assist the City's Project Manager of changes and assist the City Project Manager in managing changes
5. Prepare progress reports in the form of a letter with each invoice. Progress reports shall include a task by task summary for each of the following three sections:
  - a) The work done to date including tabular depiction of percent of task budget expended vs. percent complete for each task or task series,
  - b) Any out-of-scope items required or requested, and
  - c) Any potential issues of importance. Also, the progress reports shall include a section discussing the overall composite project schedule and budget status.
6. Identify potential impact on project costs associated with project changes resulting from City comments.
7. Attend **one** City Council meeting.

### **Work Products.**

1. Updated Project Management Plan.
2. Meeting minutes.
3. Invoices, invoice back-up material, and documentation required by City of Sultan.

4. Status report shall be submitted with each monthly invoice.
5. Project Schedule
6. Compensation for this task is based on a 2-month duration (recognizing most of the construction will be concentrated within 2 months even though the overall project duration will be longer), allotting for up to 20 hours per month for project management services.

**City Responsibilities.**

1. Collect and document comments from City staff on materials submitted to the City for review and comment.
2. Provide the Consultant with copies of all written comments logged by City staff.
3. Assign reviewers to the project.
4. Resolve conflicting review comments prior to submitting to the Consultant.

**Phase 199 Contingency**

**Objective.** To set aside contingency funds to cover unanticipated activities associated with the Centrifuge Construction Project and the WWTP upgrade program development.

**Approach.** These funds can only be used upon written authorization from the City with an accompanying scope of work.

**Work Products.** As requested.

**City Responsibilities.** The City shall provide written authorization to direct the Consultant for work in this task, and to use funds associated with this task.

**Objective.** To insure that the facilities proposed by the Contractor will fulfill the requirements of the contract.

**Approach.** Track and review submittals from the Contractor. To ensure efficient submittal reviews, the Consultant reserves the right to return incomplete submittal packages to the Contractor without review of content. Submittal review does not include review of “Product Data”, which in accordance with the specifications is submittal for information only.

**Product.** At this time the following submittals are anticipated. Review of these 8 submittals and 2 additional ones not yet identified (total of 10 submittal reviews) is included in this scope of work. It is estimated that in order to track, review, document responses, and potentially review resubmittals, submittals will require an average of about 8 hours per submittal (80 hours total).

- Alfa-Laval centrifuge package
- Electrical
- Piping/valve layout
- Structural
- Trolley/hoist
- Construction sequencing/outage plan
- Concrete
- Paint

A normal part of submittal review herein includes some minor effort in reviewing submittals that deviate from the contract documents. Excessive review of Contractor proposals for alternate equipment and materials, equipment proposals not in compliance with the specifications, and cost savings proposals by the Contractor is not included in this scope of work.

**City Responsibilities.** The City shall review all submittals that require the Engineer’s approval upon receipt from the Consultant. The City shall inform the Consultant in writing of any specific comments that the City wants incorporated into the submittal mark-up within 7 calendar days upon receipt from the Consultant.

## **Phase 300    Miscellaneous Office Engineering**

**Objective.** To ensure efficient progress by the Contractor by responding to requests for information (RFIs) and other requests.

**Approach.** These services during construction may include review of materials and shop drawings, interpretation of contract documents, responding to requests for information (RFIs), coordination with City staff, and review of as-built drawings. Unless otherwise directed by the City, all RFIs shall be submitted in writing and shall be sent directly to the Consultant by the Contractor. The Consultant shall immediately send one copy of all RFIs to the City. The Consultant shall prepare a written response to all RFIs. The Consultant shall send one copy of the written response to the Contractor, one copy to the City, and shall retain one copy for their files. Written responses shall be prepared and distributed within 15 days after receipt from the Contractor.

**Products.** Tracking and documenting of RFI responses. This scope does not include as-built or record drawing development. It is assumed that the City will take the lead with any permitting efforts, so this scope of work only allows for support as requested. This scope of work includes up to 40 hours for these services.

**City Responsibilities.** The City shall review all RFIs immediately upon receipt from the Consultant. The City shall inform the Consultant in writing of any specific comments that the City wants incorporated into the RFI response within 3 calendar days upon receipt from the Consultant.

## Phase 400 Change Order Preparation

**Objective.** Change orders may be required to address actual conditions encountered in the field, to accommodate additional items to improve the project, and incorporate Contractor recommendations that could save contract costs.

**Approach.** The Consultant will work with the City to identify the reasons for change orders and schedule impacts. It is assumed that the City's Construction Manager will prepare monthly pay estimates and prepare and negotiate change orders. The Consultant will provide drawings and specifications for changes associated with design errors or omissions. The Consultant will provide documentation of Consultant hours spent resolving out-of-scope issues or non-design related change orders. Additional change order preparation assistance will be conducted in accordance with the Agreement as additional out-of-scope work, for non-design related change orders and for change orders for additional facilities not included in this Scope of Work.

**Product.** Drawings, Specifications, and engineering labor and other charges associated with change orders will be provided. This scope of work includes up to 40 hours for preparing change orders.

## **Phase 500    On-Site Field Services**

**Objective.** To support the City by attending on-site meetings, conducting miscellaneous field inspection services during construction, and overseeing Contractor's testing procedures.

**Approach.** The intent of this Phase of the work is to provide day-to-day oversight inspection to ensure that the Contractor delivers in conformance with the bid documents. This scope does not include special inspections, such as electrical, rebar, or concrete. It is assumed that the Building Department will either provide special inspections, or contact other parties to conduct the special inspections. The Consultant will facilitate coordination of these special inspections.

The Consultant will attend a preconstruction conference run by the City and attended by the Contractor and the Subcontractors and attend other field and weekly progress meetings. The purpose of the preconstruction conference is to clarify authority and relationships, procedures for pay requests, equipment and materials submittals, change order procedures, and project close-out procedures.

**Products.** There are no specific products identified for this task, This phase includes site meeting notes and photo documentation. The budget allocated for this task assumes one engineer attends the preconstruction conference and is on-site up to 22-days over the course of the 30-day period when the Contractor will be demolishing equipment, installing new equipment, and providing start-up and commissioning services.

**City Responsibilities.**    Lead preconstruction meeting and supply Building Inspector?

## **Phase 600 Operations and Maintenance Manual**

**Objective.** To provide an operations and maintenance manual describing system startup procedures, shutdown procedures, normal system operating conditions and procedural maintenance required for proper system operations.

**Approach.** The Consultant will prepare an O&M Manual describing the operations of only the new or modified facilities. Normal operations, emergency operations, and system controls and alarm conditions will be described. This O&M manual will be prepared in electronic format to be placed on a CD. Additionally, one paper copy of this document will be submitted. This O&M manual will largely be provided by the Centrifuge Manufacturer, but will require modification to ensure it is integrated with the rest of the WWTP.

**Products.** The Consultant will provide a draft copy and a final copy of this O&M manual that incorporates City review comments. This scope of work provides up to 30 hours for this task.

**City Responsibilities.** Provide review comments to the draft O&M Manual.

## **Phase 700    WWTP Program Services**

**Objective.** To assist the City with miscellaneous tasks associated with advancing the WWTP upgrade program. This phase will ensure continuity and coordination between past planning and design efforts and current WWTP upgrade direction.

**Approach.** At this time, the following specific tasks have been identified:

1.     PWTF Loan Application: Provide technical input for the PWTF loan application.
2.     Lobbyist Coordination: Ensure that lobbyist effort is coordinated with the technical aspects of the WWTP upgrade and previous design related efforts.

### **Work Products.**

1.     PWTF Loan Application: This scope of work includes up to 16 hours for assisting the City with filling out technical portions of the PWTF loan application forms and includes one half-day meeting with PWTF loan representatives. This scope of work does not include delivery of the loan application to the PWTF office.
2.     Lobbyist Coordination: Input as requested and up to one meeting with the City and lobbyist to coordinate messaging for the WWTP upgrade funding. This scope of work includes up 16 hours for ensuring that the lobbyist effort is coordinated

**City Responsibilities.** Provide written authorization and direction for specific tasks requested within this Phase.

CITY OF SULTAN  
 SERVICES DURING CONSTRUCTION (SDC) OF THE CENTRIFUGE PROJECT

EXHIBIT C  
 COMPENSATION

The following table summarizes the compensation for the Scope of Work presented in Exhibit A.

<b>Phase of Project</b>	<b>Estimated Effort<sup>1,2</sup></b>
Phase 100 Project Management	\$7,500
Phase 200 Submittal Review	\$12,500
Phase 300 Miscellaneous Office Engineering	\$12,500
Phase 400 Change Order Preparation	\$6,000
Phase 500 On-site Field Services	\$30,000
Phase 600 OM Manual	\$4,200
<b>Services During Construction Total</b>	<b>\$72,700</b>
<b>Phase 199 Contingency Total</b>	<b>\$6,700</b>
<b>Phase 700 WWTP Program Services Total</b>	<b>\$5,700</b>
<b>Project Total</b>	<b>\$83,800</b>

<sup>1</sup> Based on time and materials, not to exceed estimated effort amount.

<sup>2</sup> Breakdown of work is to assist Consultant in managing the workload.