

CITY OF NEWBERG
PROFESSIONAL SERVICES AGREEMENT AMENDMENT NO. 2
August 26, 2003

Project: Headworks Retrofit Project (Design, Bid and Construction Phase Services)

Consultant: Brown & Caldwell

Summary of Proposed Changes:

1. Work Involved:

Engineering design services for the Wastewater Treatment Plant Headworks Retrofit Project: The **Consultant** was required to raise the elevation of the top slab because the notch in the bottom of the channel that was shown on the as-built drawings was not there. It would otherwise have been costly to add a depression for the screen in the existing channel. The **Consultant** indicated that it took thirty (30) hours for the additional level of effort (structural and drafting - refer to the attached cost estimate). Bidding phase services: The **Consultant** was requested to provide additional assistance during the bid period. The **Consultant** indicated that it took twenty (20) hours of additional effort (refer to the attached cost estimate).

2. Cost Summary:

Original contract amount:	\$ 95,584.00
Net change by previous amendments:	\$ 2,000.00
Previous total:	\$ 97,584.00
This amendment:	\$ 7,500.00
Amended contract amount:	\$105,084.00

3. Contract Time:

There will be no change to the original contract time. Work shall continue as scheduled.

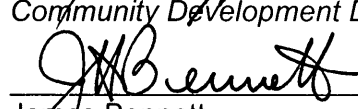
All other provisions of the professional services agreement remain in force.

ACCEPTANCE SIGNATURES:

Brown & Caldwell (Consultant)


Name: Bryan K. Paulson Date 9-3-03
Title: Vice President

City of Newberg

 9/8/03
Mike Soderquist, PE, PLS, DEE Date
Community Development Director
 9/15/03
James Bennett Date
City Manager

Brown and Caldwell's Cost Estimate

Headworks Portion (Already Spent)

Estimated Level of Effort and Cost

August 26, 2003

Task Number and Description		Breakdown of Professional Hours						Labor Hours			Total Labor		Direct Costs	Total Cost
		Project Manager Wightman	Managing Engineer Meloy, James	Project Engineer Bos	Operations Specialist Price, Stoll	Operations Assistant Reeves	Supervising Drafter Jenkins	Administrative	Professional	Technical	Administrative	Hours		
Amendment 2														
Task 2.	Additional Design- Raise headworks top slab													
	Structural	3	18						21		0	21	3,456	3,456
	Drafting					9.25			9			9	1,221	1,221
Subtotal		3	18	0	0	0	9.25	0	30	0	0	30	4,677	0 4,677
Task 420. Bidding Period														
	Additional assistance during bid period	15.00	1.00	2.50	0.25			1.00	0			0	0	0
									20			20	2,823	2,823
Subtotal		15	1	2.5	0.25	0	0	1	20	0	0	20	2,823	0 2,823
Subtotal Amendment 2		18	19	2.5	0.25	0	9.25	1	50	0	0	50	7,500	0 7,500
Amendment No. 1														2,000
Total Amendments														9,500

CITY OF NEWBERG
PROFESSIONAL SERVICES AGREEMENT AMENDMENT NO. 1
May 19, 2003

Project: Headworks Retrofit Project (Design, Bid and Construction Phase Services)

Consultant: Brown & Caldwell

Summary of Proposed Changes:

1. Work Involved:

Engineering design services for the Wastewater Treatment Plant Headworks Retrofit Project. Utility staff asked the **Consultant** that the proposed grit washers/classifiers be rotated in order to allow more room around the equipment for improved maintenance accessibility. As the work has proceeded much after the predesign level on a tight time schedule, it would take additional time to make the change and draft it in CAD. The **Consultant** indicated that it would take nineteen (19) hours for the additional level of effort (refer to the attached cost estimate). Because the equipment layout at the predesign level itself may lead to challenging piping arrangement, the **Consultant** was willing to reduce the amount from \$2,178.00 to \$2,000.00.

2. Cost Summary:

Original contract amount:	\$95,584.00
Net change by previous amendments:	\$ 0.00
Previous total:	\$95,584.00
This amendment:	\$ 2,000.00
Amended contract amount:	\$97,584.00

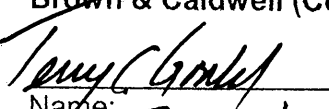
3. Contract Time:

There will be no change to the original contract time. Work shall continue as scheduled.

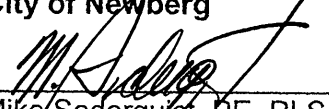
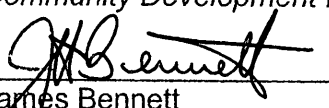
All other provisions of the professional services agreement remain in force.

ACCEPTANCE SIGNATURES:

Brown & Caldwell (Consultant)

 5/22/03
Name: Terry C. Gault Date
Title: Senior Vice President

City of Newberg

 6.10.03
Mike Soderquist, PE, PLS, DEE Date
Community Development Director
 6/10/03
James Bennett Date
City Manager

City of Newberg, Headworks Retrofit Design Project
Estimated Level of Effort and Cost to move Grit Washers after Predesign

LABOR CATEGORY	RATE \$/HR	EFFORT PER OPTIONAL SUBTASK																TOTAL	
		1.00		2.00		3.00		4.00		5.00									
		HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$
PROFESSIONAL																			
EXECUTIVE ENGINEER	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROJECT MANAGER	150	1	150	0	0	2	300	0	0	0	0	0	0	0	0	0	0	3	450
MANAGING ENGINEER	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUPERVISING ENGINEER	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRINCIPAL ENGINEER	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SENIOR ENGINEER	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENGINEER	116	0	0	0	0	8	928	0	0	0	0	0	0	0	0	0	0	8	928
ASSOCIATE	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASSISTANT	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		1	150	0	0	10	1,228	0	0	0	0	0	0	0	0	0	0	11	1,378
TECHNICAL																			
PRINCIPAL DESIGNER	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SENIOR DRAFTER	100	0	0	0	0	8	800	0	0	0	0	0	0	0	0	0	0	8	800
SENIOR DRAFTER	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		0	0	0	0	8	800	0	0	0	0	0	0	0	0	0	0	8	800
ADMINISTRATIVE																			
SUPERVISOR	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WORD PROCESSOR IV	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		1	150	0	0	18	2,028	0	0	0	0	0	0	0	0	0	0	19	2,178

TASK DESCRIPTIONS:

- 1 Management
- 2 Predesign
- 3 Design
- 4 Bid
- 5 Construction

CITY OF NEWBERG

**AGREEMENT WITH BROWN & CALDWELL
TO PROVIDE CONSULTING SERVICES
TO THE CITY OF NEWBERG**

THIS AGREEMENT is entered into this 24th day of March, 2003 by and between the City of Newberg, a municipal corporation of the State of Oregon, hereinafter called **City**, and

Brown and Caldwell
9620 SW Barbur Boulevard, Suite 200
Portland, OR 97219-6041
Phone: (503) 244-7005
Fax: (503) 244-9095
Email: bpaulson@brwncald.com
dwightman@brwncald.com

hereinafter called **Consultant**.

RECITALS:

1. **City** has need for the services of a **Consultant** with particular training, ability, knowledge, expertise and experience possessed by **Consultant**.
2. **City** has chosen **Consultant** using the RFP method. One out of seven firms responded and the evaluation committee chose to recommend Brown & Caldwell for this project. Brown & Caldwell met the **City's** expectation for the Headworks Study, which was completed in June, 2002. The Headworks Study led to the identification of this project, which is to provide design, bid, and construction phase services to **City** for the Wastewater Treatment Plant Headworks Retrofit Project. **Consultant's** experience and knowledge from their work on the Headworks Study makes them the most qualified team. **Consultant** will offer a specialized and experienced team of professionals at a reasonable cost to **City** related to the Wastewater Treatment Plant Headworks Retrofit Project.

NOW, THEREFORE, in consideration of mutual promises, covenants and agreements of the parties, it is agreed as follows.

1. **Effective Date and Duration:** This Agreement shall become effective on the date that this Agreement has been signed by every party hereto.

Unless, terminated or extended, this Agreement shall expire when **City** accepts **Consultant's** completed performance or on March 31, 2004, whichever date

occurs first. This fact notwithstanding, the services of **Consultant** shall be authorized and paid on a monthly phase-by-phase basis as described in Exhibits "A" and "B".

Expiration shall not extinguish or prejudice **City's** right to enforce this Agreement with respect to any breach of a **Consultant** warranty or any fault or defect in

Consultant's performance that has not been cured.

2. **Termination:** This Agreement may be terminated at any time by mutual, written consent of the parties. City may, at its sole discretion terminate this Agreement in whole or part upon a 30-day written notice to Consultant. City may terminate immediately upon notice to Consultant that City does not have funding, appropriations, or other necessary expenditure authority to pay for Consultant's work. City may terminate Agreement at any time for material breach. This Agreement may be terminated by either party at the end of a project phase as defined in Exhibits "A" and "B", or at any time upon a 30-day written notice.

3. **Scope of Work:** Consultant agrees to provide the services provided in the Scope of Work which is Exhibit "A", and Additional Scope which is Exhibit "B", and attached hereto and incorporated by this reference. Consultant represents and warrants to City that Consultant can perform the work outlined in the Scope of Work and the Additional Scope for the fee proposal amount.

4. **Compensation:** Consultant agrees to perform the work for a not-to-exceed fee as indicated in their professional fee proposal obtained in the Scope of Work and the Additional Scope. The not-to-exceed figure is as follows:

\$ 95,584.00

Consultant shall not exceed the fee for any task included in the fee proposal amount. If Consultant foresees that the fee is going to exceed the not-to-exceed figure because the task has changed or is outside the scope, Consultant shall notify City in writing of the circumstances with an estimated amount that the fee is to be exceeded. Consultant shall obtain written permission from City before exceeding the not-to-exceed fee amount. If Consultant does work that exceeds the maximum fee amount prior to obtaining the written permission, Consultant waives any right to collect that fee amount.

5. **Additional Work Not Shown within the Scope of Work:** If City requests or requires work to be done not within the Scope of Work of this project, Consultant shall notify City of such work, provide an estimated fee amount, and obtain written instructions to proceed with work in the form of an Agreement amendment prior to proceeding with work and incurring any costs on behalf of City. If Consultant proceeds with work prior to obtaining permission and/or Agreement amendment, Consultant waives any right to collect fees for work

performed.

6. **Agreement Documents:** This Agreement consists of the following documents which are listed in descending order of preference: This Agreement with attached Exhibits, (Exhibit "A" - the first proposal of Consultant; Exhibit "B" - the additional proposal of Consultant per City's request for additional construction phase services; and Exhibit "C" - the Request for Proposals). Work is under the sole control of Consultant, however, the work contemplated herein must meet the approval of City and shall be subject to City's general right of inspection and supervision to secure the satisfactory performance thereof.

7. **Benefits:** Consultant will not be eligible for any federal social security, state workers compensation, unemployment insurance, or public employees' retirement system benefits from the Agreement payment except as a self-employed individual.

8. **Federal Employment Status:** In the event any payment made pursuant to this Agreement is to be charged against federal funds, Consultant certifies that he or she is not currently employed by the federal government and the amount charged does not exceed his or her normal charge for the type of services provided.

9. **Consultant's Warranties:** The work to be performed by Consultant includes services generally performed by Consultant in his/her usual line of business. The work performed by Consultant under this Agreement shall be performed in a good and businesses-like manner in accordance with the highest professional standards. Consultant shall, at all times, during the term of this Agreement, be qualified, be professionally competent, and duly licensed to perform the work.

10. **Indemnity:** Consultant shall defend, indemnify and hold harmless City from and against all liability or loss and against all claims, suits, actions, losses, damages, liabilities, costs, and expenses of any nature whatsoever to the extent resulting from, arising out of, or relating to the negligent performance of services by the Consultant, or its officers, employees, subcontractors, or agents under this Agreement.

11. **Independent Contractor:** Consultant is not currently employed by City. The parties to this Agreement intend that Consultant perform all work as an Independent Contractor. No agent, employee, or servant of Consultant shall be or shall be deemed to be the employee, agent or servant of City. City is interested only in the results obtained under this Agreement; the

manner and means of conducting the work are under the sole control of **Consultant**, however, the work contemplated herein must meet the approval of **City** and shall be subject to **City's** general right of inspection and supervision to secure the satisfactory performance thereof.

12. **Taxes:** **Consultant** will be responsible for any federal or state taxes applicable to payments received under this Agreement. **City** will report the total of all payments to **Consultant**, including any expenses, in accordance with the Federal Internal Revenue Service and the State of Oregon Department of Revenue regulations.

13. **Insurance:**

a) **Consultant**, its Subconsultants, if any, and all employers working under this agreement are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers; or by signing this Agreement, **Consultant** represents that he or she is a sole proprietor and is exempt from the laws requiring workers' compensation coverage.

b) **Consultant** will, at all times, carry a Commercial General Liability insurance policy for at least \$1,000,000.00 combined single limits per occurrence for Bodily Injury, Property Damage, and Personal Injury. If the policy is written on the new occurrence form then the aggregate limit shall be \$2,000,000.00. **City**, its agents, employees and officials all while acting within their official capacity as such, shall be named as an additional insured on the insurance specified in this paragraph.

c) **Consultant** will, at all times, carry a Professional Liability/Errors and Omission type policy with limits of at least \$500,000.00. If this policy is a "claims made" type policy, the policy type and company shall be approved by the City Manager prior to commencement of any work under this Agreement.

d) **Consultant** shall furnish **City** with Certificates of Insurance upon execution of Agreement. Such Certificates of Insurance evidencing any policies

required by this Agreement shall be delivered to **City** prior to the commencement of any work. A 30-day notice of cancellation clause shall be included in said certificate. **City** has the right to reject any certificate for unacceptable coverage and/or companies.

14. **Assignment:** The parties hereto each bind themselves, their partners, successors, assigns and legal representatives of such other party in respect to all terms of this Agreement. Neither party shall assign the Agreement as a whole without written consent of the other.

15. **Ownership of Work Product:** All original documents prepared by **Consultant** in performance of this Agreement, including but not limited to original maps, plans, drawing and specifications are the property of **City** unless otherwise agreed in writing. Quality reproducible records copies of final work product, including digital files of text and drawings shall be provided to **City** at the conclusion or termination of this Contract. **City** shall indemnify and hold harmless **Consultant** and **Consultant's** independent professional associates or **Subconsultants** from all claims, damages, losses and expenses including attorney's fees arising out of the City's use of any instruments of professional service for purposes outside the scope of this Contract.

16. **Entire Agreement:** This Agreement constitutes the entire Agreement between the parties and supersedes all prior agreements, written and oral, courses of dealing, or other understanding between the parties. No modification of this Agreement shall be binding unless in writing and signed by both parties.

17. **Notification:** All correspondence and notices related to this Agreement shall be directed to the project manager for the party to whom the correspondence or notice is intended. If directed to **City**: City of Newberg, Attn: Paul Chiu, P.E., Project Manager, P.O. Box 970, Newberg, Oregon 97132. If directed to **Consultant**: Attn: Daria Wightman, P.E., Project Manager, at the address listed above. Each party shall be responsible for notifying the other of any changes in project manager designation.

IN WITNESS WHEREOF, the parties have executed this Consulting Services Agreement on the date first above mentioned.

CONSULTANT

By: Bryan K Paulson
Name: Bryan K. Paulson
Title: Vice President
Date: 3-20-03

Division Approval: _____

Recommended For Approval By:

Michael Soderquist
Michael Soderquist, P.E., P.L.S., DEE
Community Development Director

CITY OF NEWBERG

By: James H. Bennett
Name: James H. Bennett
Title: City Manager
Date: 3/24/03

Approved As To Form:

Terrence D. Mahr
Terrence D. Mahr
City Attorney

EXHIBIT A

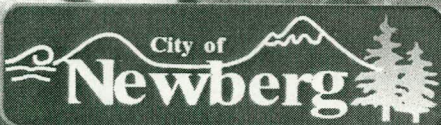
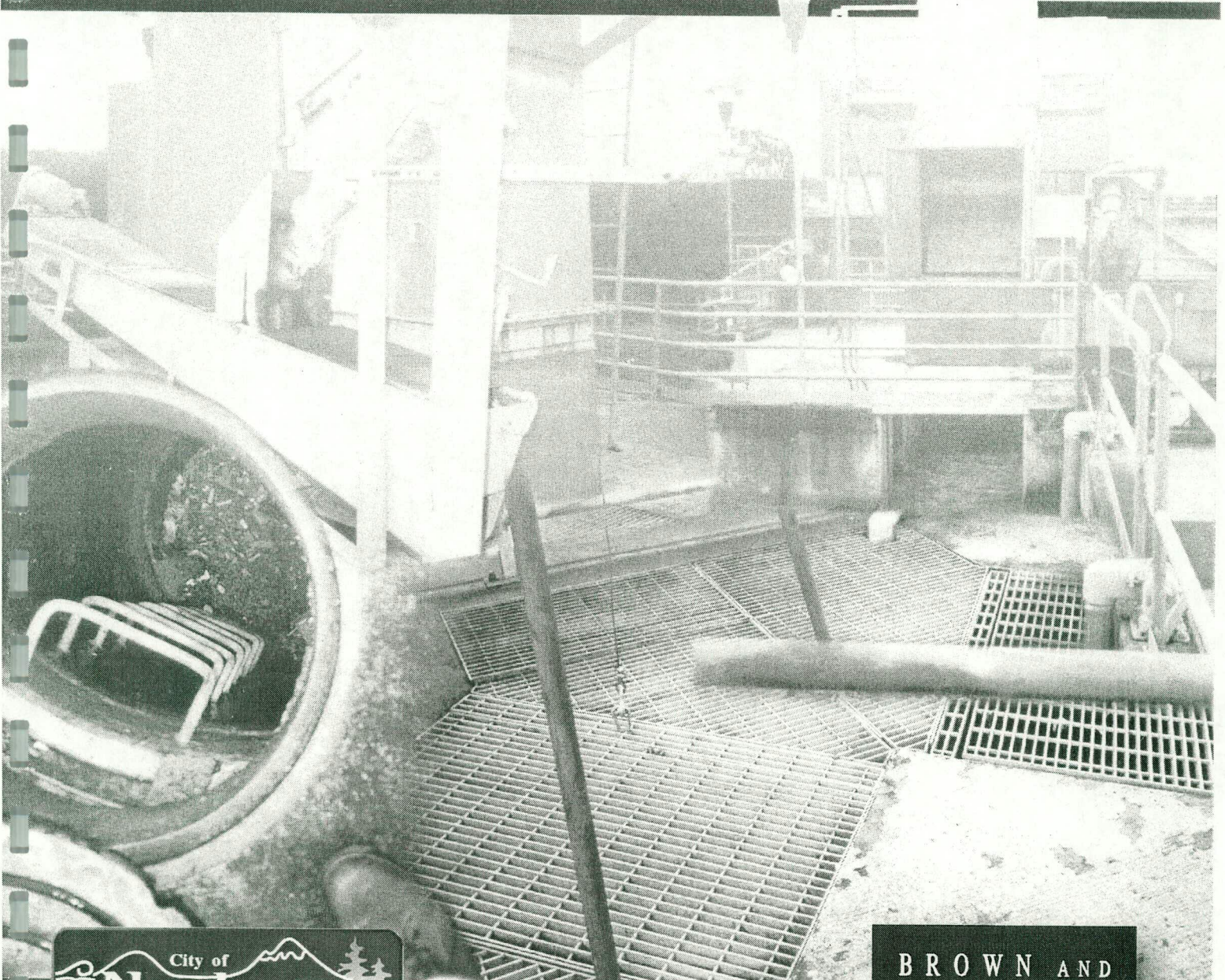
Proposal for

February 6, 2003

Headworks Retrofit Design

Newberg Wastewater Treatment Plant

CIP 706330



BROWN AND
CALDWELL

9620 SW Barbur Boulevard
Suite 200
Portland, Oregon 97219
Tel: (503) 244-7005
Fax: (503) 244-9095
www.browncaldwell.com

BROWN AND
CALDWELL

February 6, 2003

Paul Chiu, P.E.
City of Newberg
414 East First Street
Newberg, Oregon 97132

13-91207-018

Subject: Proposal for Headworks Retrofit Design at the
Wastewater Treatment Plant

Dear Mr. Chiu:

The City of Newberg (City) has funded the needed improvements that address plant deficiencies in screening and grit handling based on the results of Headworks and Dump Station Studies completed by Brown and Caldwell. Brown and Caldwell will provide quality long-term service at the lowest on going cost by:

- Maximizing the return on limited funds through alternative procurement methods for the desired equipment.
- Accommodating winter flows by proactively developing a detailed construction sequence that addresses constraints.
- Ensuring user-friendly operation by involving operators in the decision-making process.

Daria Wightman, our Project Manager, successfully managed the Headworks and Dump Station Studies. Her established working relationships and project management skills will ensure that the project is completed on the City-approved schedule and budget. Daria and Bryan Paulson, who is authorized to represent Brown and Caldwell and sign any contract that may result, will participate in contract negotiations.

Brown and Caldwell, a California corporation, is a resident bidder as defined in ORS 279.029. This proposal is valid for 90 days. Brown and Caldwell will sign the standard agreement. However, we ask that the City consider potential changes we previously negotiated in the Headworks and Dump Station Studies Project.

If you have any questions concerning this proposal, Daria Wightman can be reached by phone at 503/244-7005, by fax at 503/244-9095, or via e-mail at dwightman@brwncald.com.

Our team members look forward to working with you on this important project.

Very truly yours,

BROWN AND CALDWELL

Federal ID: 94-1446346



Daria Wightman, P.E.
Project Manager



Bryan K. Paulson, P.E.
Vice President

DW:wmp

Table of Contents

Proposal for Headworks Retrofit Design at the Wastewater Treatment Plant

Section 1 Key Personnel Qualifications

Section 2 Project Scope and Understanding

Section 3 Project Schedule

Section 4 Fee Schedule

Section 5 Additional Supporting Information

References

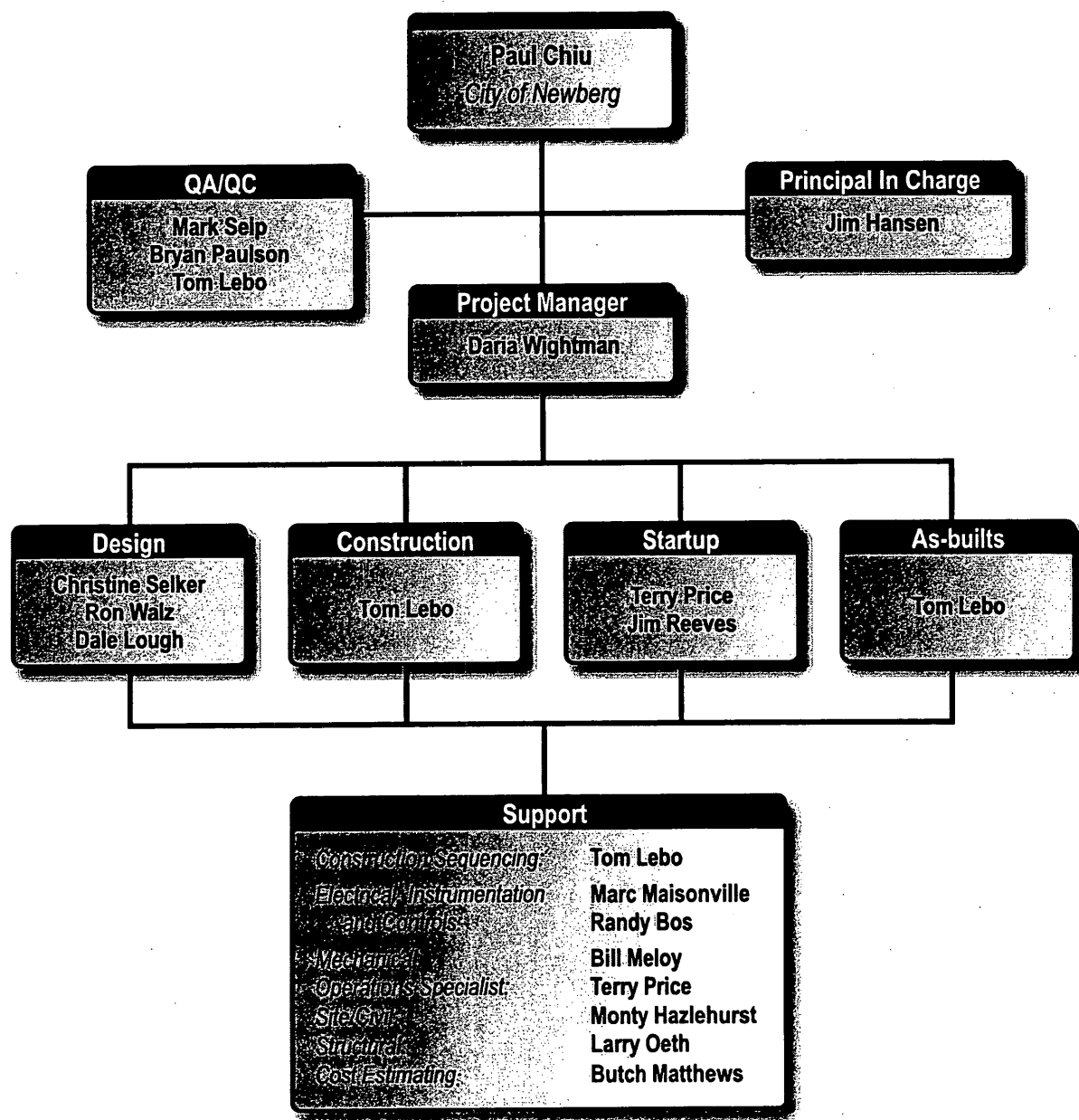
Public Client List

Resumes

The information contained in this proposal is proprietary and contains confidential information which is of significant economic value to Brown and Caldwell. It is intended to be used only for evaluation of our qualifications to provide services. It should not be duplicated, used or disclosed whole or in part for any purpose other than to evaluate this proposal.

Section 1 Key Personnel Qualifications

The City of Newberg (City) has recognized the need for improvements in the headworks to increase plant efficiency. Brown and Caldwell has assembled a project team with the qualifications and experience to provide an effective design to maximize the value of capital expenditures. For continuity and efficiency, the team includes the same personnel that worked on the Headworks study. Brown and Caldwell's experience in upgrading headworks, minimizing change orders, and increased performance is highlighted in the table in Section 3 and by the reference list in Section 6. Team member resumes in Section 6 provide details of individuals' skills and project experience that you will come to value when applied to your project. The team provides continuity from the Headworks Study that Brown and Caldwell recently completed. The team's organization is illustrated below.



As Principal In Charge, **Jim Hansen** will participate in contract negotiation, execution, and administration. With 17 years of environmental consulting experience, he will ensure that all of the necessary resources and quality control procedures are available and utilized. As Brown and Caldwell's project manager, dedicated to the City's Headworks Retrofit Design project, **Daria Wightman**, will direct the technical effort, coordinate personnel, develop and manage the budget, oversee day-to-day project administration, ensure that the design work is completed on schedule, and act as the primary point of contact for your project manager. Our project team also features several technical advisors who will provide quality assurance and control, as well as technical input as needed. Brown and Caldwell's national expert in screening and grit handling, **Mark Seip**, will act as technical advisor and senior reviewer for the screening/grit task. **Bryan Paulson** will act as a technical advisor for the headworks design. **Tom Lebo** will provide construction oversight for the development of construction sequencing and services during construction.

Christine Selker and **Dale Lough** will design the grit/screening and septage receiving improvements. They will also work together on the analysis of plant hydraulics with senior input from Ron Walz. Each of our senior task leaders will be supported by senior level engineers and experienced electrical, structural and operations specialists. **Marc Maisonville** and **Randy Bos** will comprise our electrical, instrumentation and controls team. **Larry Oeth** will provide a structural evaluation. **Terry Price** will evaluate operations and coordinate with Newberg operations staff to ensure they are included in the design process. **Bill Meloy**, a seasoned mechanical designer with 35 years of experience, will provide mechanical support. **Monty Hazlehurst** will provide site/civil services. **Butch Matthews** will provide professional cost estimating to ensure reliable budget numbers. Project experience for each team member is provided below.

Project Manager

Daria Wightman is a registered engineer in Oregon, and has 20 years of experience as a project manager and engineer for the study, design, and construction of wastewater treatment plant (WWTP) improvements projects. She has demonstrated the ability to identify and develop innovative approaches that improve system performance, simplify operations, upgrade aging facilities, reduce costs and meet regulatory, environmental and site constraints using phased approaches. She also has a track record for managing budgets and schedules. Daria will apply her design experience to the Headworks Retrofit Design.

In Woodburn, Daria led a facilities planning effort that evaluated alternatives for the headworks, grit screening, and septage receiving. Brown and Caldwell later designed and provided construction services for the screening, grit removal, grit washing and compacting, and septage receiving. She recently worked with you on the Newberg Headworks and Dump Station Studies that preceeded this project. Daria was project manager for the design of the Laie Water Reclamation Facility that included headworks. She provided services during construction for the Lake Stevens WWTP project that included headworks retrofit work.

As Brown and Caldwell's project manager, Daria will apply her management experience to ensure that the work is completed on schedule and budget. To ensure effective communications, she will include key review workshops at project milestones; monthly project status updates; weekly informal phone conferences and e-mails; and rapid response to communications.

Brown and Caldwell commits the same team that worked on the headworks study to your project for its duration. For example, our project manager predicts a workload during your project that will allow her team the time and energy needed for complete project success. The amount of time that Daria will spend on other projects is estimated as follows:

■ Pima County Area Facilities Plan	40 percent
■ Woodburn Follow-on Services	5 percent
■ Brown and Caldwell Marketing and Administration	5 to 20 percent

This leaves up to 30 to 55 percent of Daria's time on a monthly basis to manage your project and provide innovative input and quality assurance/quality control (QA/QC) review. Working with the well-qualified advisors, engineers, and administrative staff at Brown and Caldwell, Daria has demonstrated the ability to successfully manage several projects at one time.

Relevant Project Experience:

- Design Engineer for the WWTP in Lake Stevens, Washington, which included new screens, flow measurement, and grit removal. She also provided services during construction for the project.
- Project manager for facilities planning and design of the Laie WWTP in Laie Oahu, Hawaii, which included new headworks.
- Managed the development of a facilities plan for the City of Woodburn, Oregon, that addressed issues such as the headworks and septage receiving.
- Project Engineer for the City of Portland, Oregon, Tryon Creek Facilities Plan which included headworks improvements.

Project Team Experience

Our team includes seasoned professionals who possess the professional qualities and experience required to deliver a successful project. Our team is committed to work with the City staff for the duration of the Dump Station and Headworks Project. Relevant experience for each additional team member is listed below.

Team Member	Relevant Experience
Project Management	
Jim Hansen, P.E. Principal In Charge	❖ Managed the expansion and upgrade of the Mission Sewage Pump Station Expansion for the City of Salem, OR. ❖ Managed the development of a sewer condition rating system and a collection system prioritization model for the City of Salem. ❖ Managed the large diameter sewer inspection project for the City of Portland.
Quality Control/Quality Assurance	
Mark Seip, P.E. Senior Advisor QA/QC—Screening/grit	❖ Provided QA/QC for the Headworks and Dump Stations Studies Project for the City. ❖ Design engineer for the installation of an innovative cylindrical fine screen system that washes, compacts and bags the removed screenings for the cities of Delano and Cokato, MN. ❖ Designed screening and grit removal systems for the Ely, MN, WWTP.
Tom Lebo QA/QC—Constructability Construction Services	❖ Design, procurement, and construction of a biosolids thickening and dewatering facility for the Tri-City Water Pollution Control Facility (WPCF), in Clackamas County, OR. ❖ Construction management during the renovation and expansion of the existing treatment plant, including headworks, in Woodburn. ❖ Construction management for the upgrade of the Florence, OR, treatment facility, including new headworks. ❖ Construction Manager and Resident Engineer for two headworks design projects at existing operating plants in Hillsboro and Forest Grove, OR, for Clean Water Services (CWS).

Team Member	Relevant Experience
Bryan Paulson, P.E. Senior Advisor QA/QC—Headworks Design	❖ Project Manager for the design and construction management of a 5 million gallons per day expansion of the Gresham WWTP that included bar screens and grit removal. ❖ Project Manager for the design and construction management of improvements at the Kellogg Creek WPCP in Clackamas County including screening and grit removal aeration.
Screening/Grit	
Ron Walz, P.E. Screening/Grit Septage Receiving	❖ Managed the pre-design and design of the Woodburn WWTP expansion, which included a new headworks, screening, compaction, grit washing, grit removal and septage receiving. ❖ Managed the pre-design and design of the Spring Street WWTP expansion in Klamath Falls, OR, which included fine screening. ❖ Managed the pre-design and design of the Brookings, OR, WWTP expansion, which includes a headworks, primary clarifiers, trickling filter improvements, aeration tanks, secondary clarifiers, ultraviolet (UV) disinfection, sludge thickening and storage.
Christine Selker, P.E. Process Engineer	❖ Evaluated screening and grit equipment alternatives at the Woodburn WWTP; prepared control strategies and designed the selected headworks improvements. ❖ Assisted with project management and prepared drawings and specifications for grit removal improvements at the Tri-City WPCP in Clackamas County.
Dale Lough, P.E. Pumping	❖ Assisted in design and construction activities for the upgrade of the Middle Grove and Church Street sewage pump stations for the City of Salem. ❖ Lead Engineer for Ankeny Pump Station predesign for the City of Portland. ❖ Developed a spreadsheet model to perform the priority ranking process through consideration of the risk and consequence of failure factors for the City of Salem.
Support	
Larry Oeth, P.E. Structural, Architectural	❖ Responsible for all structural design elements, including headworks, aeration basins, secondary clarifiers, new digester, UV disinfection and three process-related buildings during the WWTP expansion in Florence. Pilot study and soils densification methods saved \$200,000 in foundation costs and prevented liquefaction. ❖ WWTP Reliability Improvements, City of Klamath Falls; Structural engineer. Provided structural and architectural design for extensive basin modifications, new lab and operations building. Utilizing a non-pile foundation method saved \$300,000.
Randy Bos Electrical and I&C	❖ Designed electrical and instrumentation and controls (I&C) for the fine screens, vortex grit removal systems, and septage receiving at the Woodburn WWTP. ❖ Designed electrical and I&C during upgrades to the headworks at the Forest Grove and Hillsboro WWTPs for CWS. ❖ Designed electrical systems, emergency power generation and automatic transfer, programmable logic controllers, MMI and odor controls for new screening, degritting and raw sewage pumping for the Boise, ID, WWTP.

Team Member	Relevant Experience
Marc Maisonville, P.E. Electrical	❖ Provided electrical and instrumentation design and construction services for the WWTP expansions at the Annacis Island WWTP in Vancouver, BC, Canada, including the loop testing and design of controls for a new headworks that included screening and grit removal. ❖ Provided field inspections, loop testing and responding to requests for clarification during the construction of improvements at the Gresham WWTP, including screens, grit screening, and grit pumps.
Bill Meloy, P.E. Mechanical	❖ Managed the design of a biofilter for the exhaust air from the compactor at the Newberg WWTP. ❖ Provided mechanical systems design supervision for the City of Corvallis, OR.
Terry Price Operations	❖ Responsible for start-up and optimization of WWTPs and training personnel for the cities of Gresham, Florence, Woodburn, and Roseburg, OR. ❖ Project Scientist for an operations evaluation of four treatment plants and 39 pumping stations as part of a business process re-engineering assessment and business plan development for CWS's Wastewater Treatment Department. The project identified labor and non-labor cost-saving measures, and other areas for making the department competitive with the private sector.
Monty Hazlehurst, P.E. Site/Civil	❖ Developed plans and specifications for civil/site work including grading, paving, and outside piping during process alternatives evaluation at the Columbia Boulevard Wastewater Treatment Plant for the City of Portland. ❖ Designed civil/site work including grading, paving, outside piping, stormwater collection, and pumping stations, during the WWTP expansion and upgrade in Woodburn.
Butch Matthews Cost Estimating	❖ Completed cost estimates for the Newberg Headworks and Dump Station Study. ❖ Completed a project estimate for a new headworks, new aeration basin, sludge holding tanks, blower building, chlorination facility and operations building modifications at the Wailuku-Kahului Water Reclamation Facility (WRF) in Maui, HI. The estimate was for \$11,418,077, and final bid received was \$11,379,000. ❖ Completed a cost estimate for a new headworks complex, aerated grit tanks, chemical system, odor control process unit and associated site piping and amenities at the San Buenaventura, CA, WRF. The estimate was \$11,296,830 and the actual low bid was \$11,174,001.

Section 2 Project Scope and Understanding

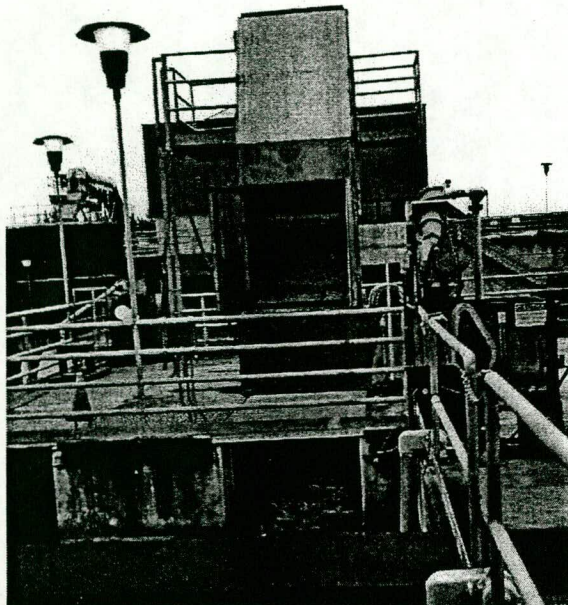
Our understanding of your Headworks Design Project and the major issues that need to be addressed are summarized in this section along with our approach. The proposed Scope that reflects our approach is also presented in this section.

A. Statement of Understanding

Background

The screens, screening bypass, screenings washer/compactor, grit cyclone/classifier and grit piping at the Newberg Wastewater Treatment Plant (WWTP) need to be modified to improve efficiency.

Brown and Caldwell completed the Dump Station and Headworks Studies project and developed recommendations for the retrofit of the headworks, which are outlined below.



The existing, antiquated screen is frequently down for repairs, which allows plastics to impact downstream processes and solids disposal.

Screens

A new screen will be installed in the east channel. The FSM-manufactured perforated plate-type screen is the preferred model and will be used as the basis for design. Installation of a bypass is required with

the FSM screen. The existing Vulcan rake-arm bar screen in the west channel will be left in service, but the provisions for its future replacement with the same FSM perforated plate-type screen is included.

Screening Bypass

The hydraulic capacity of the headworks flow channels was analyzed during the Headworks Studies, and a 20-inch diameter bypass pipe and a plastic slide gate with three different inserts were recommended to avoid over-topping the walls when one channel is out of service. The bypass will be installed at the headworks to allow flow to go around the bar screen channels into the grit chamber. The bypass, which consists of a box installed on the south wall of the headworks with a plastic slide gate, is adjustable by inserting plates of different heights. The bypass, in conjunction with one channel, will allow the system to remain operational while one of the two flow channels is shut down for maintenance.

Screenings Washer and Compactor

Screenings currently fall directly from the bar screen into a dumpster and do not receive washing to remove organics or compaction to reduce moisture levels. Therefore, the current screenings would not pass a paint filter test, which may be a future requirement for hauling by a garbage service or acceptance at a landfill.

The FSM-manufactured washer/compactor with castors was noted in the Headworks Studies as the unit of choice. Required modifications include the removal of the east portion of the chute, installation of additional support to allow installation of a compactor over the west channel, and the installation of a stainless steel cover over the chute and over the grit drop holes.

Screenings will drop via the modified chute into a dedicated screenings dumpster below. Both compactors will discharge into the existing chute. A conveyor will not be required, as the discharge pipe of the east compactor will be lengthened to discharge into the chute.

Grit Cyclone/Classifier and Grit Piping

The existing headworks has an aerated grit chamber where grit is settled out, pumped to a single grit washer/selector, and then falls into a dumpster. The installation of a redundant Wemco cyclone/classifier, as recommended in the Headworks and Dump Station Studies, will require the relocation of the existing cyclone/classifier one foot south. Redundant grit piping to the new cyclone and classifier will also be included. Both the new and the existing cyclones/classifiers will discharge into new holes in the concrete slab and into a dedicated grit dumpster below.

Challenges

There are several challenges that must be addressed to provide the headworks upgrades that the Newberg WWTP operators need.

Newberg staff want cost-effective quality equipment that will provide long-term service with a responsive manufacturer for service and parts. The existing screen is too often out of service and new requirements will necessitate dewatering the screenings for continued disposal at the landfill. The capital cost must also align with the City's Capital Improvements Plan (CIP) budget. The existing equipment and channels cannot pass the peak flow with one channel out of service. When the existing antiquated screen is out of service, as it often is, peak flows can overflow the channel walls. Redundant grit washing equipment is also needed. The system must work well and the operators must have input into the design to ensure a user-friendly end product. Each challenge is discussed below.

Challenge 1: State and local rules limit procurement alternatives.

City staff have invested considerable time and effort researching equipment alternatives and selecting the preferred equipment. Site visits to other headworks operations around the area were conducted and out-of-state operators were interviewed to determine the quality of equipment available on the market. Existing local and state rules require that a competitive process be used to procure equipment, unless justification for sole sourcing equipment, is provided based on the quality of product, track record in maintenance, product technical support and training, parts inventory, availability, serviceability, competitive pricing, and/or other reasons. The

City's governing body must approve the written justification before sole source procurement method is authorized. With conventional competitive bidding processes, some Contractors can ignore quality requirements and submit an inferior and cheaper piece of equipment. This could result in installation of another screen that is frequently out of service for maintenance, similar to the current screen that needs to be replaced.

Challenge 2: Winter peak flows limits must be hydraulically passed when one channel is being retrofitted.

Construction of the headworks is expected to take about 6 months. The current schedule, based on the City's CIP funding, requires some construction to occur in the winter months. In winter, both channels are needed to treat and hydraulically pass flows when the existing screen is out of order or peak flow events occur.

Construction sequencing must be planned to avoid wet weather peak events that overflow the channel walls. Overflowing the channel walls creates an unsanitary condition at the doorways and on the roadway which requires cleanup.

There is also a need to balance construction sequence with headworks operations to minimize disruption to plant staff activities and wastewater treatment operations.

Challenge 3: City engineering and operations staff need to be involved in detailed design decision-making.

As part of the design process, many decisions need to be made with regard to design details. If end users are not involved in the decision-making process, then the final product will not meet their expectations. Lack of end-user buy-in and participation during design will impact system operation and maintenance (O&M) as witnessed at other treatment plants where operators were not encouraged or allowed to participate in the design.

Approach

Our approach is to use the Brown and Caldwell team members who participated in the Headworks Study to provide continuity in design. The Brown and Caldwell team will provide solutions that

maximize return on limited funds, accommodate winter flows, and ensure that operators are involved in decision-making during detailed design.

**Approach to Challenge 1—
Alternative procurement methods obtain
preferred equipment**

Using alternative procurement methods can ensure that quality equipment is installed to provide the desired treatment and cost-effective maintenance. There are several types of alternative procurement methods that Brown and Caldwell has successfully used. These include:

- Naming the manufacturer in the base bid
- Prequalification
- Owner purchase
- Design/build
- Detailed specification

Naming the manufacturer in the base bid and providing an alternate bid item allows the City to choose the desired equipment for this project. For example, the bidder would be required to circle the name of an approved manufacturer for the screen, either FSM or Andritz, which is included in the bidder's base bid. By so indicating, the bidder warrants that equipment manufactured by the named manufacturer will be provided on this project. The bidders may also offer a deductive price to the Owner for supplying alternative equipment. Information regarding offered alternative equipment is not reviewed during the bid period and is not used in determining the basis of award. Selection of any offered alternate equipment is at the Owner's sole discretion and would be accomplished by issuing a deductive change order for the amount indicated.

This was successfully done at the Gresham, Woodburn, and Florence WWTPs for their headworks equipment. In each case, the Contractor supplied the Owner-preferred equipment.

At the Gresham WWTP, the Owner was concerned about obtaining an acceptable screenings washer/compactor. The existing screenings washer/compactor did not perform well and required frequent maintenance to remove, by hand, material that had become wedged in the compactor.

Equipment from another manufacturer was pilot tested as a potential replacement to the existing units, but was also found not to be acceptable due to an ineffective instrumentation system. Acceptable manufacturers were identified and their good operational history at several treatment plants was verified through detailed conversations with plant staff. The acceptable equipment was listed in the bid form and the requirement that bidders circle the name of equipment to be used as the basis of their bid was discussed in detail with potential bidders during the pre-bid conference. All bidders completed the bid form correctly. The low bidder chose not to list alternative equipment and the owner received acceptable equipment that has performed very well. One of the bidders listed alternate equipment and, if he had been the low bidder, the Owner would have had the option to require that the specified equipment be installed or review and select the alternate equipment. This selection would have been at the sole discretion of the Owner.

Prequalification includes an additional process. A "Request for Equipment Qualifications" package consisting of general information, submittal forms, evaluation criteria, specifications, and reference drawings is developed. A prequalification vendor meeting is held to answer remaining questions from vendors. Then vendor submittals are received and submittal information verified, as necessary, by conducting follow-up phone calls. A preliminary submittal evaluation summary is prepared and submitted to the City.

The final recommendation of qualified manufacturers is prepared with the City. The contract documents are revised as necessary to accommodate final bidding. This process was used successfully at Clackamas County's Kellogg Water Pollution Control Plant (WPCP) during the replacement of an inferior bar screen that was previously procured conventionally. One advantage of prequalification is that cost is not the primary consideration in the selection. The advantage at Kellogg WPCP headworks is that the Owner got the desired quality and brand-name screen.

Owner-purchased equipment refers to the method where the Owner purchases the equipment directly from the supplier and the contract documents require the Contractor to install the Owner-supplied equipment. This method allows design around one

manufacturer. This would need to be combined with another method in order to get the preferred equipment.

Writing detailed specifications requires that the preferred equipment has unique features or a history of good performance. This also requires the Owner to take a tough stand during the construction submittal review phase, and not accept inferior equipment.

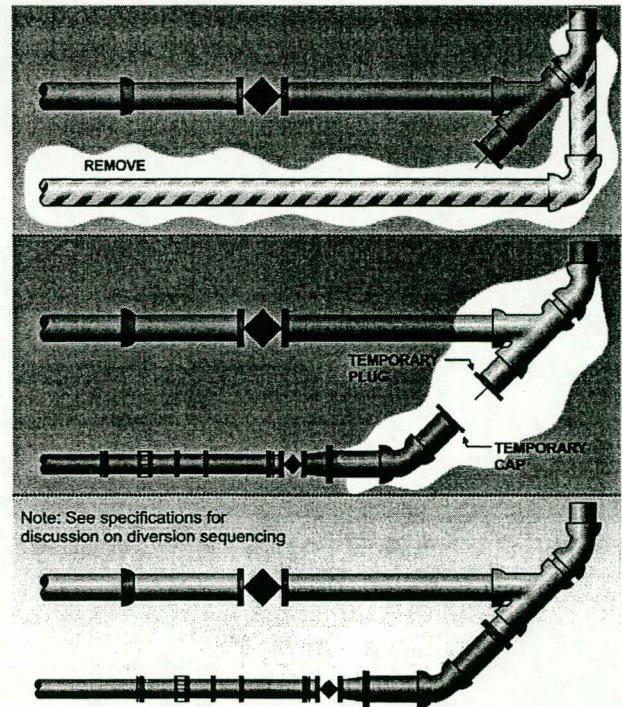
Approach to Challenge 2— Detailed construction sequences ensure minimal plant disruptions during construction

Brown and Caldwell's design team consists of Construction Services team members who will write detailed construction sequences to ensure minimal plant disruptions during construction. The detailed construction sequence will ensure adequate hydraulic capacity to pass wet weather flows by requiring that the bypass channel be built before the new screen equipment installation. The screen installation will take the spare channel out of service, leaving only one channel that alone does not have the hydraulic capacity to pass the peak flow.

The design will incorporate sequence constraints and develop construction sequence early in the design process (at 20 percent) and update and revise as necessary during the final design process. The construction sequence specification is drafted and submitted with the 20 percent drawing set so that the constraints of operations and shut-downs are understood from the beginning of the project. The constraints will then be incorporated into the design package as a whole and integrated product, rather than tacked on at the end with pieces missing.

A simplified example of our construction sequencing approach is shown above. The figure shows the sequencing used during construction of the Mission Street Pump Station in Salem, and includes in order, demonstration, temporary piping modifications, and final installation. This visual approach helped to eliminate mistakes that could have caused plant disruptions.

Brown and Caldwell used this process on the Woodburn, Gresham, and Kellogg projects listed in the qualifications sections, and minimized plant disruptions and their associated costs.



Construction sequencing using a visual approach eliminates mistakes that can cause plant disruptions.

Approach to Challenge 3— Involve City staff in design decision-making

Brown and Caldwell team members will communicate the decisions that need to be made and relay the benefits and consequences of choosing between the alternatives. Our construction team member will define the cost and construction impacts of the alternatives. Brown and Caldwell operations and construction team members will be involved in the design.

The Brown and Caldwell team will hold design review meetings to describe the design and discuss comments to the design submittals. We will also document meeting results, decisions, and action items. Upon receipt of your written comments, we will provide written responses so that City staff will understand how their comments were incorporated into the design. This process was successfully used at Tri-City, Woodburn, and Gresham, allowing staff to understand the design so they could request changes prior to construction. Requested improvements are easier and cheaper to incorporate during design than during construction.

Complete startup training, comprehensive equipment documentation and timely follow-on support will ensure that the operators have a successful project. Brown and Caldwell is in a unique position to ensure that these services are provided in an efficient manner due to our previous involvement with the Headworks and Dump Stations Studies project.

B. Detailed Design Work Plan

Brown and Caldwell will provide engineering preliminary design, design, bid period services, and services during construction, as described in the following tasks.

Task 1. Project Management

Objective:

To efficiently manage the project and team members to produce a quality work product on time and within budget, and to provide responsive coordination with, and involvement of, the City. In addition, to identify applicable permitting agencies and work with them to secure necessary approvals and permits needed prior to bidding and construction. Coordinate with the City and applicable permitting agencies.

Activities:

- 1.1 Project Management
 - 1.1.1 Maintain frequent and open communication with the City's project team and work closely to anticipate changes in the project emphasis or needs. Review studies recommendations and confirm.
 - 1.1.2 Prepare a Project Management Plan (PMP) and project documentation that includes methods for progress reporting and invoicing, detailed task descriptions, establishes cost breakdown by task, defines memo format, and establishes quality assurance/quality control (QA/QC) procedures. Prepare a detailed schedule, including milestones for the preliminary design and design phases of the project. Include planned meetings in the schedule.

- 1.1.3 Conduct a Kickoff Meeting and prepare meeting notes with Decisions and Action Items documented.
- 1.1.4 Ensure weekly communications (phone and e-mail) with the City to discuss project status and action items.
- 1.1.5 Prepare monthly invoices and project status reports.
- 1.2 Provide permitting assistance.
 - 1.2.1 Identify applicable permitting agencies and work with them to secure necessary approvals and permits needed prior to bidding. Coordinate with the City, and applicable permitting agencies. Invite the Oregon Department of Environmental Quality (DEQ) to attend the Project Kickoff meeting and design review meetings.
 - 1.2.2 Provide technical input for permit applications related to the headworks modifications.

Work Products:

Six (6) copies of the PMP with Scope of Work, Project schedule and milestones, Kickoff Meeting notes, monthly invoices, list of permits, and regular updates to list with status of permitting process, and copies of Approvals and Permits.

Task 2. Preliminary Design

Objective:

To complete tasks related to the predesign phase of the project.

Activities:

- 2.1 Produce preliminary design drawings to the thirty (30) percent level. Develop the following drawings in AutoCAD:
 - Process and Instrumentation Diagrams
 - Site plan
 - Layouts and basic sections

Prepare the final design Drawing list. Provide an updated cost estimate. Prepare a draft Construction Sequencing Specification. Prepare draft specifications Table of Contents.

- 2.2 Conduct structural inspection of existing system.
- 2.3 Analyze procurement options to obtain the desired equipment.
- 2.4 Develop the documents with acceptable word processing or spreadsheets, and drawings in AutoCAD. Assemble a preliminary design document for review. The document is to include the documents listed above and the drawings as they exist at the 30 percent level.
- 2.5 *(Optional)* If the Owner prefers to use sole source procurement, Brown and Caldwell will provide justification based on the quality of product, track record in maintenance, product technical support and training, parts inventory, availability, serviceability, competitive pricing and/or other reasons.
- 2.6 QA/QC. Conduct independent internal quality control reviews during the project to ensure that they are complete and accurate. The documents will be reviewed by the City and Brown and Caldwell technical experts, and approved comments incorporated into the next stage of design.

Work Products:

List of applicable codes. Structural inspection memorandum noting deficiencies and recommending further investigations, if necessary. Six (6) copies of preliminary design documents.

Task 3. Final Design

Objective:

To proceed with design upon approval of the preliminary design work and authorization by the City.

Activities:

- 3.1 Develop a list of comments for inclusion in the final design. Conduct the necessary civil, mechanical, structural, and electrical engineering work to bring the plans and specifications to the ninety (90) percent level. The design will be "constructable" on the jobsite. Indicate any limitations to future plant expansion. The design will not impede future expansion

of other parts of the plant, such as proposed installation of biofilters, and the proposed odor control facility. Provide updates of any construction cost estimate changes from the 30 percent level. Arrange for a 90 percent design review meeting with the City.

- 3.2 After City approval of the 90 percent package, prepare final 100 percent camera-ready design drawings, specifications and bid sheets, complete design calculations, a final engineer's cost estimate, a construction schedule.
- 3.3 Submit O&M manual insert outline at completion of final design.

Work Products:

Six (6) sets of design documents at 90 percent. Meeting notes on design review at 90 percent. Camera-ready copy of final contract documents. Construction cost estimate. Outline for O&M manual insert for new headworks equipment.

Task 3A. Equipment Prequalification (Optional)

Objective:

Optional task to provide additional flexibility for obtaining the preferred equipment.

Activities:

Brown and Caldwell may organize, coordinate and execute a bar screen equipment vendor prequalification process that will culminate in a recommendation to the Owner. The subtask may consist of the following:

- 3A-1. Prepare a "Request for Equipment Qualifications" package consisting of general information, submittal forms, evaluation criteria, specifications and reference drawings. Submit the package to the City for review and revise based on comments.
- 3A.2. Attend a prequalification vendor meeting and/or remain available to answer questions from vendors for up to a 10-day period.
- 3A.3. Receive vendor submittals, and verify submittal information, as necessary, by conducting follow-up phone calls, etc. Prepare a preliminary submittal evaluation summary and submit to the Owner.

- 3A.4. Meet with the Owner to discuss the prequalification packages and jointly develop the final recommendation on qualified manufacturers. Prepare a final submittal evaluation summary and submit to the Owner.
- 3A.5. Advise the vendors of the final qualification determination and revise the contract documents as necessary to accommodate the final bidding necessities.
- 3A.6. Equipment prequalification process follow-up. If necessary, Brown and Caldwell will be available to assist the City with any necessary follow-up services for the prequalification process, such as further documentation, response to vendor questions or protests, etc.

Performing services related to this task are contingent upon receiving written authorization and direction from the City's Project Manager.

Optional Work Products:

Written responses to requests for information or clarification.

C. Detailed Construction Work Plan

Task 4. Bid Period Services

Objective:

To provide services from advertisement through notice-to-proceed for the construction project.

Activities:

- 4.1 Respond to technical questions raised by potential bidders.
- 4.2 Provide input for one addendum as may be required using a City-specified format. Addendum to include major changes, which are significant to the bid price of the project.

Work Products:

One (1) camera-ready addendum. Written responses to requests for information or clarification

Task 5. Services during Construction

Objective:

Provide services "as negotiated" from notice-of-award through the completion of the construction project, which is anticipated to take place in March 2004.

Activities:

- 5.1 *(Optional)* Attend the preconstruction conference at the Newberg WWTP to address questions and issues.
- 5.2 Provide up to two monthly construction observation services to confirm the construction Contractor's adherence to the construction contract documents. Prepare daily reports for each of the two monthly visits. Visits are to begin after Contractor mobilization and shop drawing review is completed. Document Consultant communication with the construction contractor.
- 5.3 *(Optional)* Provide increased number of periodic construction observation and testing services at appropriate frequencies to confirm the construction Contractor's adherence to the construction contract documents. Prepare daily reports for increased visits.
- 5.4 Review submittals and shop drawings provided by the Contractor for "Review and Comment" and provide written comments. Submittal reviews are anticipated for the following items:
 - Concrete and grout mix designs, accessory data, and laboratory test reports
 - Structural steel shop drawings and welder certificates for the pipe supports
 - Screening Equipment manufacturer's data and anchorage details and calculations
 - Screenings Compactor Equipment manufacturer's data and anchorage details and calculations
 - Grit Washer Equipment manufacturer's data and anchorage details and calculations

- Motor control center, transformer, light fixture and accessory, raceway, wire and electrical accessory manufacturer's data
 - Instrumentation and control panels
- 5.5 Respond to Requests for Information by fax or e-mail (Allowance of 8 hours).
- 5.6 *(Optional)* Provide technical assistance to the City in preparing change order requests and reviewing monthly pay requests from the Construction Contractor.
- 5.7 *(Optional)* Submit a summary report of construction work completed since the last submitted construction invoice and the construction work anticipated for the next period, with each monthly invoice from the Construction Contractor. Highlight any concerns or construction issues. Provide a written summary of each meeting with the City, and detailed project construction schedule updates from the Contractor on a monthly basis.
- 5.8 *(Optional)* Complete a final O&M manual insert for the Headworks Upgrades to replace the headworks equipment pages in the City's existing O&M Manual.
- 5.9 *(Optional)* Provide final as-built drawings in electronic format and also hard copy on 22-inch by 34-inch 4 mil Mylar.
- 5.10 *(Optional)* Assist with startup of equipment.

Work Products:

Provide documentation of communication between Brown and Caldwell team and the Construction Contractor. Provide daily reports for two site visits.

Optional Work Products:

Provide an ongoing record of correspondence (transmittals, memoranda, reviews, recommendations, etc.) to the City. Submit daily construction observation reports to the City on a weekly basis after Contractor mobilization. Provide six (6) sets of final as-built drawings. Provide six (6) copies of final O&M manual insert to the City within sixty (60) days of completion of the construction project. The manual will also be provided in MS Word® electronic file format.

Assumptions

- Performance specifications will be used as appropriate.
- Existing facilities photos will be used with keynotes describing the improvements where appropriate.
- Equipment manufacturer's drawings will be used where appropriate.
- General Specifications for the Composter Odor Control Project will be used as a base for the specifications for this project.
- Additional scope and budget would be required for significant changes in project direction from the studies results.
- Programming is not included.
- Field observation is limited due to budget constraints. Additional services can be provided upon request and negotiations.
- Additional O&M services can be provided that update the O&M Manual in Brown and Caldwell's tabular format.
- As-built drawings *(optional)* drafted based on the field information provided by the Contractor and City.

D. Modifications of Work Items

Optional tasks have been identified to economize on the Brown and Caldwell's base services in order to meet the City's engineering budget for this project. Optional services gladly provided if additional funds are available.

E. Project Progress and Quality Control

Internal procedures and/or policies for quality assurance and cost control

All work products go through two levels of review prior to submittal to client. First, a technical peer review is performed to check consistency with standard industry practices and Brown and Caldwell's own technical standards. Second, documents are edited to ensure the highest quality products. Cost control is managed directly by the project manager. Weekly, our project manager reviews

project reports summarizing budget statistics. Cost control information will be provided to the City on a monthly basis along with our invoice. In our monthly project summary report, we will present the percent work complete along with the expenditures to date. This helps keep City staff current with project progress in addition to regular telephone calls and e-mails.

QA/QC Plan

QA/QC is a major responsibility of the project manager. Specific quality strategies are as follows:

- Senior review and technical editing of deliverables
- Calculation checks
- Client reviews and design review meetings
- Workshop and brainstorming sessions
- Cost estimate review
- Constructability and coordination reviews
- Project debriefings with client
- Budget and schedule maintenance

Routine monitoring of project status and budget will be done by the project manager and project engineers on a weekly basis and ongoing corrective actions made, as necessary. Brown and Caldwell's approach to schedule maintenance consists of the development of a realistic and detailed timeline for each activity. A computerized project schedule is developed using Microsoft Project®.

F. Management Approach and Methodology

Project Management Techniques

Brown and Caldwell will begin your project with the development of a PMP. The PMP provides team members with a clear understanding of tasks, schedules, and deliverables to ensure that the project meets your needs from start to finish. Effective communication is the key to our approach and methodology of managing work tasks and coordination, sequencing and control of field operations to accomplish the work in a timely manner.

We utilize workshops to jointly develop processes and procedures with particular emphasis placed on feedback loops. The kick-off workshop is used to define the responsibilities and authorities of all client and project personnel and to refine the project goals and objectives. The results of workshops are documented and distributed to each participant. Newberg staff team members will be active participants in the planning and CIP activities through project meetings and informal communications. We will listen and respond to staff input during design to minimize and avoid costly changes during construction.

G. Use of City's Personnel

Our scope and level of effort assumes that City personnel will assist in the overall project. Time requirements during design are estimated at several days for each staff person for each design review. Administrative time will range throughout the project from 4 hours to 1 day per week. Construction activities may require 0.25 full time equivalent for City staff to do field observation and other construction-related activities.

City's Responsibility

Project Tasks to be Performed by the City

The City will:

- a. Provide a project engineer/manager responsible for the overall project management and will provide coordination between the Consultant and the City;
- b. Review and negotiate all contract documents;
- c. Prepare Council submittal package and conduct Council workshops;
- d. Make available a collection of data from City records such as property descriptions, as-built data, maps, etc., and City policies, regulations and guidelines to be used in developing the design;
- e. Make arrangements for City staff to provide timely response to any questions, and to be available for any meetings requested by the Consultant. All meetings will take place at the Newberg WWTP or as noted otherwise;

- f. Provide within two (2) weeks of submittal to the City, timely response to and approval of: preliminary design (at 30 percent level), and final design at 90 percent levels;
- g. Submit and pay all required construction permits to outside agencies;
- h. Review, suggest modifications, and approve the O&M manual outline;
- i. Review and process monthly payment requests from the Consultant;
- j. Provide the base or template provisions for the construction contract to which the Consultant will add terms and conditions unique to the project; and
- k. Perform other tasks as negotiated.

Other assistance proposed specifically by task include:

Task 1

- Fill out and signs permit applications
- Pay permit fees
- Work with the Consultant and permitting agencies to secure necessary approvals and permits needed prior to bidding

Task 2

- Develop a written list of City comments for inclusion in the final design

Task 3

- Provide legal front-end specifications for Construction Documents similar to the Composter Odor Control Project
- Develop a written list of City comments for each design review package
- Print construction documents

Task 4

- Advertise
- Distribute Contract Documents to potential bidders
- Print and distribute addendum

Task 5

- Coordinate operations and construction
- Provide O&M Manual inserts to update Headworks portion of the current O&M
- Provide updates to the O&M Manual that may be requested by DEQ that are outside the scope of the Headworks Upgrade such Design Data Table for the plant
- Provide field observation in addition to the Consultant observation as needed.
- Attend weekly Contractor Coordination Meetings
- Conduct compliance testing
- Review submittals not included in Consultant submittal review list that may include but not be limited to:
 - Asphalt concrete pavement material
 - Product data
 - Coating materials lists, application methods, samples, and Material Safety Data Sheets
 - Piping, accessory, and valve product data and shop drawings

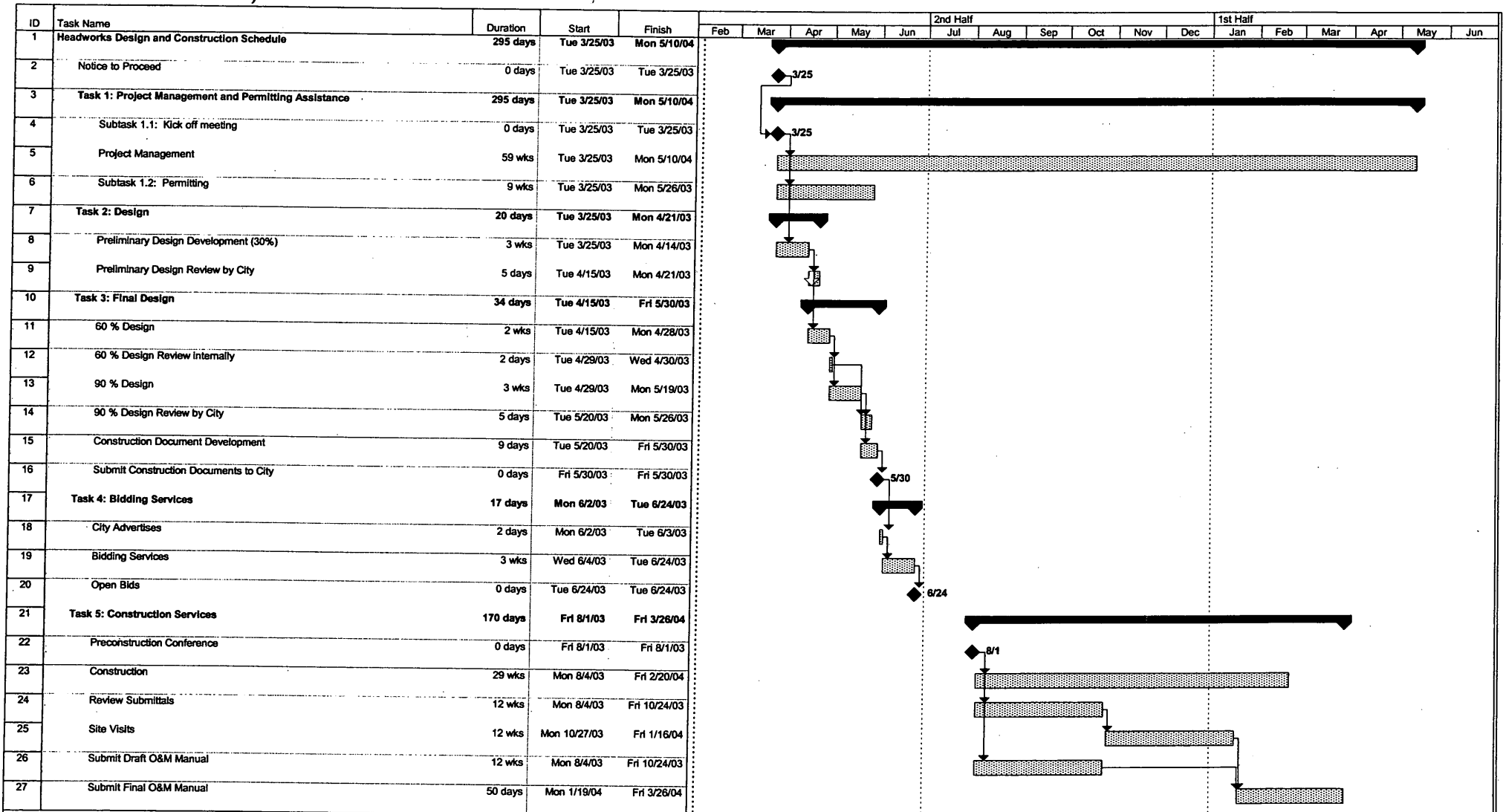
H. Sections Not Met by Proposal

This proposal meets the Sections of the Request for Proposals. Modifications and assumptions that have been made to meet the City's engineering budget for the project are described in Part B. Detailed Design Work Plan, Part C. Detailed Construction Work Plan, Part D. Modifications of Work Items, and Part G. Use of City's Personnel.

I. Proposer's Coverage of RFP Items

All RFP items have been covered in this proposal.

Section 3 Project Schedule



Project: Dump Station and Headworks
Date: Wed 2/5/03
City of Newberg

Task
Split
Progress

Milestone
Summary
Rolled Up Task

Milestone
Summary
Rolled Up Task

Milestone
Summary
Rolled Up Task

Rolled Up Split
Rolled Up Milestone
Rolled Up Progress

Rolled Up Split
Rolled Up Milestone
Rolled Up Progress

External Tasks
Project Summary
External Milestone

External Tasks
Project Summary
External Milestone

External Tasks
Project Summary
External Milestone

External Tasks
Project Summary
External Milestone

External Tasks
Project Summary
External Milestone

Deadline



Section 4 Fee Schedule

City of Newberg, Headworks Retrofit Design Project Estimated Level of Effort and Cost

LABOR CATEGORY	RATE \$/HR	EFFORT PER TASK										TOTAL	
		1		2		3		4		5			
		HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$
PROFESSIONAL													
EXECUTIVE ENGINEER	189	0	0	1	189	1	189	0	0	0	0	2	378
PROJECT MANAGER	150	30	4,500	4	600	4	600	4	600	0	0	42	6,300
MANAGING ENGINEER	167	0	0	0	0	0	0	0	0	0	0	0	0
SUPERVISING ENGINEER	156	0	0	20	3,120	104	16,224	0	0	34	5,304	158	24,648
PRINCIPAL ENGINEER	150	0	0	8	1,200	12	1,800	8	1,200	16	2,400	44	6,600
SENIOR ENGINEER	132	0	0	0	0	0	0	0	0	0	0	0	0
ENGINEER	116	0	0	8	928	60	6,960	4	464	16	1,856	88	10,208
ASSOCIATE ENGINEER	100	0	0	0	0	0	0	0	0	0	0	0	0
ASSISTANT ENGINEER	84	0	0	0	0	36	3,024	0	0	0	0	36	3,024
SUBTOTAL		30	4,500	41	6,037	217	28,797	16	2,264	66	9,560	370	51,158
TECHNICAL													
PRINCIPAL DESIGNER	132	0	0	4	528	10	1,320	0	0	0	0	14	1,848
SENIOR DRAFTER	100	0	0	0	0	66	6,600	0	0	0	0	66	6,600
SENIOR DRAFTER	84	0	0	40	3,360	109	9,156	0	0	0	0	149	12,516
SUBTOTAL		0	0	44	3,888	185	17,076	0	0	0	0	229	20,964
ADMINISTRATIVE													
SUPERVISOR	100	6	600	0	0	0	0	0	0	0	0	6	600
WORD PROCESSOR IV	84	0	0	0	0	35	2,940	0	0	0	0	35	2,940
SUBTOTAL		6	600	0	0	35	2,940	0	0	0	0	41	3,540
TOTAL		36	5,100	85	9,925	437	48,813	16	2,264	66	9,560	640	75,662

TASK DESCRIPTIONS:

1. Project Management
2. Preliminary Design (30% Project Completion)
3. Final Design
4. Bid Phase
5. Construction Phase

Optional subtasks not included.

Design Costs based on the preliminary drawing list attached

SPECIAL REQUESTS, REPORTS, AND SCOPE CHANGES:

Charges for special requests and broadening the scope under this contract will be based on this rate table.

Rates may be adjusted at the beginning of each calendar year to reflect salary and direct cost changes.

Newberg Headworks Retrofit Design Project
Estimated Level of Effort for Drawings and Specifications
Preliminary Drawing List

Assumptions:

Manual plastic stop gate at entrance to bypass pipe. No gate at exit of bypass pipe at grit chamber.

Two new screens and two new compactors, with west screen and compactor shown as future.

Valves for grit piping and new cyclone/classifier are manual.

Programming not included.

DESCRIPTION	ESTIMATED HOURS		
	PROFESSIONAL	TECHNICAL	ADMINISTRATIVE
GENERAL DRAWINGS			
G1 VICINITY & LOCATION MAPS, INDEX OF DRAWINGS, SITE	10	16	
G2 SYMBOLS, ABBREVIATIONS, DESIGN DATA AND GENERAL NOTES	4	8	
TOTAL	14	24	0
PROCESS AND INSTRUMENTATION DRAWINGS			
P1 P&ID PROCESS SYMBOLS AND ABBREVIATIONS	4	8	
P3 P&ID - HEADWORKS MODIFICATIONS	8	16	
TOTAL	12	24	0
STRUCTURAL DRAWINGS			
S1 PLAN AND SECTIONS	20	20	
TOTAL	20	20	0
MECHANICAL DRAWINGS			
M3 MISCELLANEOUS DETAILS - 1	12	12	
M5 PLAN AND SECTIONS AND DETAILS	24	28	
TOTAL	36	40	0
ELECTRICAL DRAWINGS			
E1 ABBREVIATIONS AND SYMBOLS	4	8	
E2 ELECTRICAL DETAILS - 1	6	16	
E3 ELECTRICAL PLAN	12	12	
E4 ONE-LINE DIAGRAM	12	8	
E5 MCC ELEVATIONS	4	8	
E13 CONTROL DIAGRAMS - SCREENS	12	12	
E14 CONTROL DIAGRAMS - COMPACTORS	12	2	
E15 CONTROL DIAGRAMS - CLASSIFIER	4	12	
E16 CONTROL DIAGRAMS - HEADWORKS CONTROL PANEL	12	12	
TOTAL	78	90	0
SPECIFICATIONS			
FRONT END	20		5
STRUCTURAL	16		5
MECHANICAL	24		5
ELECTRICAL	24		5
INSTRUMENTATION	26		5
PROOF AND COORDINATE	8		10
TOTAL	118	0	35
TOTAL FOR DRAWINGS AND SPECIFICATIONS	278	198	35

Section 5 Additional Supporting Information

References

Expansion and Upgrade of the Woodburn Wastewater Treatment Plant, City of Woodburn, OR

Brown and Caldwell completed the upgrade and expansion of the Woodburn Wastewater Treatment Plant (WWTP).

Following the 1994 Facilities Plan, preliminary design and detailed design were conducted from 1996 through 1999. The improvements project addressed all aspects of the treatment process including those relevant to the Newberg Pump Station and Headworks project:

- Headworks screening and grit removal
- Septage receiving
- Stormwater collection

Brown and Caldwell designed a new headworks, including wastewater screening and grit removal. The previous headworks could not remove adequate quantities of rags and grit that would ultimately deposit into the anaerobic digesters. The buildup of this material in the digesters reduced treatment capacity and required frequent cleaning of the noxious tanks. The new Brown and Caldwell-designed headworks includes fine screens and vortex grit removal systems that remove much larger quantities of material, which prevents a buildup of these materials in the anaerobic digesters. Screenings that are removed are washed and compacted as they are conveyed to the screenings dumpster. Channels were designed to avoid trapping scum.

Brown and Caldwell designed improvements to the plant's solids handling processes leading to a long-term biosolids management program. Specific improvements consist of a new septage receiving facility, which removes large solid materials prior to discharge into the plant.

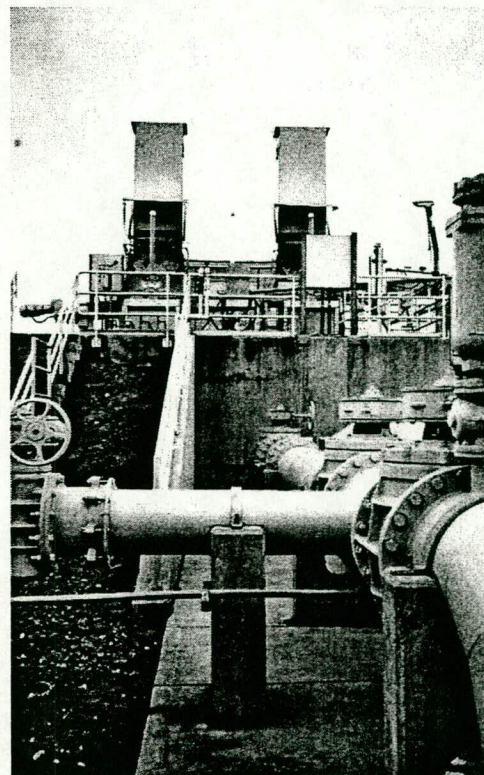
Client Contact: Frank Tiwari, 503/982-5240, frank.tiwari@ci.woodburn.or.us
190 Garfield Street, Woodburn, OR 97071 Fax: 503/982-5244

Frank Sinclair, 503/982-5280, frank.sinclair@ci.woodburn.or.us
2815 Molalla Road, Woodburn, OR 97071 Fax: 503/982-5285

Kellogg Creek Water Pollution Control Plant Headworks Bar Screen Replacement, Clackamas County, OR

Brown and Caldwell provided engineering analysis, cost estimates, detailed design services, bid phase services, and construction services for the replacement of existing headworks bar screens. The existing headworks consisted of three bar screen channels, two of which had mechanical back-raked bar screens and a third channel with a coarse, manually cleaned, bar rack. An engineering alternatives analysis and cost estimates were developed for several alternatives. The installation of a front-cleaned bar screen was selected. Services included the prequalification of equipment to ensure that Clackamas County received the preferred equipment.

Client Contact: Randy Rosane, 503/353-4573, randyr@co.clackamas.or.us
9101 Southeast Sunnybrook, Suite 441, Clackamas, Oregon 97015 Fax: 503/353-4599



Wastewater Treatment Plant Expansion and Upgrade, City of Brookings, OR

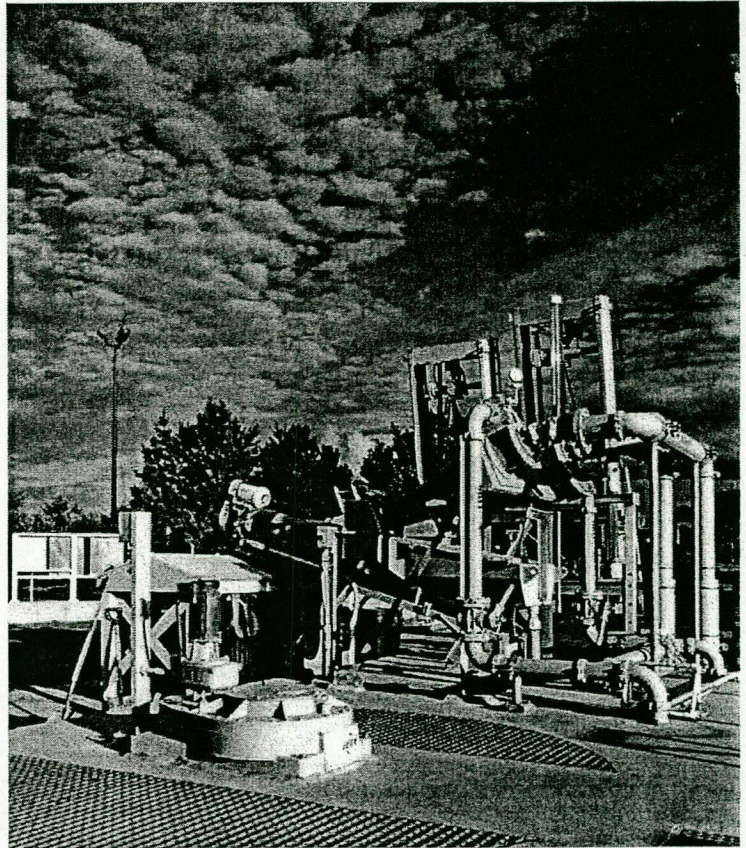
Brown and Caldwell was selected to upgrade and expand the Brookings WWTP. The expansion was divided into two phases. The Phase I project constructed in 1990 included the critical liquid stream treatment improvements to correct the most serious permit violations. The Phase II project that was completed in 2000 doubled the treatment capacity and provided essential solids treatment and storage facilities.

During the 1990 upgrade, Brown and Caldwell designed headworks, including screens and vortex grit removal systems that remove much larger quantities of material, and helped the plant meet permit requirements that restrict objectionable material in effluent. Screenings are compacted as they are conveyed to the screenings dumpster. In 2000, Brown and Caldwell designed the addition of another screen.

The 2000 plant upgrade was sized to treat an average dry weather flow of 1.7 million gallons per day (mgd) and a peak hour wet weather flow of 15.5 mgd. The upgraded facility also includes components similar to Newberg's Pump Station and Headworks project, such as:

- Headworks screening and grit removal
- Stormwater collection

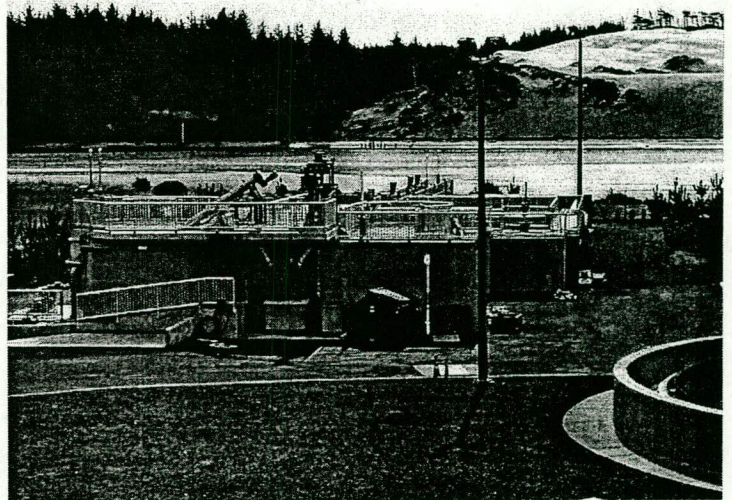
Client Contact: Leo Lightle, 541/469-2163, llightle@brookings.or.us
 Joe Ingwersen, 541/412-0424, joei@brookings.or.us
 898 Elk Drive, Brookings, OR 97415 Fax: 541/469-3650



Wastewater System Improvements, City of Florence, OR

The City of Florence's existing plant was more than 20 years old and had clearly reached the end of its useful life. In addition, the plant was hydraulically overloaded, which caused permit violations during periods of heavy rainfall.

The Brown and Caldwell project consisted of design and construction of major improvements, including a new headworks. The headworks improvements included fine helical screens and vortex grit removal and compaction. Odor control for the headworks was also designed. Plant startup occurred several months ahead of schedule, and the facility has performed as intended since startup.



Client Contact: Ken Lanfear, 541/997-2141, ken.lanfear@ci.florence.or.us
 250 Highway 101 North, Florence, OR 97601 Fax: 541/902-1333

Wastewater Treatment Plant Improvements, City of Gresham, OR

Brown and Caldwell designed and provided bid period and construction services, for the expansion of the Gresham WWTP. The project included a new influent diversion structure, new headworks, and secondary treatment systems. Headworks improvements included screening and grit removal.

Client Contact: Alan Johnston, 503/618-2431, johnston@ci.gresham.or.us
1333 Northwest Eastman Parkway, Gresham OR 97030 Fax: 503/665-6825

Public Client List

The following references include the ten most recent clients:

Clean Water Services

- Steve Lampert
503/846-3630
lamperts@cleanwaterservices.org
155 North First Avenue
Suite 270
Hillsboro, OR 97124

City of Coburg, OR

- Jack Harris
541/682-7856
jack.harris@ci.coburg.or.us
P.O. Box 8316
Coburg, OR 97408

City of Klamath Falls, OR

- Mike Kuenzi
541/883-5363
mkuenzi@ci.klamath-falls.or.us
226 South Fifth Street
Klamath Falls, OR 97440

City of Medford, OR

- Larry Beskow
541/774-2115
larryb@ci.medford.or.us
City Hall
411 West Eighth Street
Medford, OR 97501
- Brice Perkins
541/774-2750
bricep@ci.medford.or.us
- Harley James
541/774-2750
harleyj@ci.medford.or.us
Wastewater Treatment Plant
1100 Kirtland Road
Central Point, OR 97502

City of Myrtle Creek, OR

- Joseph Wolf
541/863-3171
mc.city@pioneer-net.com
- Steve Turner
541/863-5300
mc.works@pioneer-net.com
P.O. Box 940
Myrtle Creek, OR 97457

City of Newberg, OR

- Bob Bielman
503/537-0514
bielmab@ci.newberg.or.us
P.O. Box 970
Newberg, OR 97132

City of Portland, OR

- Steve Simonson
503/823-2480
steves@bes.ci.portland.or.us
- Garry Ott
503/823-2400
garryo@bes.ci.portland.or.us
5001 North Columbia Boulevard
Portland, OR 97203

City of Reedsport, OR

- Floyd Dollar
E-mail not available
541/271-3603
451 Winchester Avenue
Reedsport, OR 97467

City of Salem, OR

- Keith Whisenhunt
503/588-6211
kwhisenhunt@open.org
555 Liberty Street Southeast
Room 325
Salem, OR 97301-3503

City of Seaside, OR

- Chris Davies
503/738-5112
cosce@pacifier.com
989 Broadway
Seaside, OR 97138

Randal Bos

Assignment

Electrical, Instrumentation and Controls

Education

IBEW/NECA Inside Wireman's
Apprenticeship Course

Wonderware Intouch Developer's
Course

Intellution FIXX MMI Developer's
Course

Registration

General Journeyman Electrical No.
8595J, Oregon, 1983

Experience

25 years

Joined Firm

1992

Experience Summary

Randy Bos has 25 years of experience with industrial electrical systems and has a working knowledge of National Electric Code and UL requirements. Prior experience includes service as a manufacturing supervisor for a local control systems builder employing skills in control specification, panel layout and design, programmable logic controller (PLC) and supervisory control and data acquisition system (SCADA) programming, and process control requirements. He spent several years as a lead drive systems technician for the General Electric Company where he worked with AC and DC variable speed drive systems. His work experience includes electrical construction inspection; work as an industrial engineering technician and as a journeyman electrician. He is well aware of client electrical maintenance requirements. Mr. Bos' field experience consists of system test and start-up on a variety of industrial projects.

Wastewater Treatment Plant Expansion and Upgrade, City of Woodburn, Oregon

Project Designer. Completed electrical control design for headworks and septage receiving station.

Wastewater Treatment Plant Expansion and Upgrade, City of Woodburn, Oregon

Project Site Electrical. Work included technical assistance to Construction Inspectors, Contractors and City Engineers during the construction and start up of this project. Responsibilities included inspections of electrical and instrumentation installations, review of submittals and electrical change proposals, requests for information from the Contractor and witnessing of process control start up and commissioning tests.

Gresham Wastewater Treatment Plant Expansion Project, City of Gresham, Oregon

Project Designer. Work included control design for new headworks, primary and secondary clarifiers, aeration basins and blowers. The project also included control design for upgrading the existing solids handling facility, aeration basins and blowers, administration building, plant water system, digesters and SCADA system. Design responsibilities included work on process and instrumentation diagrams, motor and PLC control wiring diagrams, Division 16 and 17 specifications and process control strategies.

Sweylocken Pumping Station, King County Department of Natural Resources, King County, Washington

Designer. Completed electrical design for a 27 mgd sewage pump station.

**New Screening, Degritting, and Raw Sewage Pumping Design,
Boise Lander Street Wastewater Treatment Facility, City of
Boise, Idaho**

Project Designer. Work included new incoming power for the plant, emergency power generation and automatic transfer, PLC, MMI, and extensive odor controls.

**Design for Headworks Project, Forest Grove and Hillsboro
Wastewater Treatment Plants, Unified Sewerage Agency of
Washington County, Oregon**

Project Designer. Project responsibilities include technical assistance with electrical power design, control system design, electrical design drafting, PLC programming, review of submittal information and job site inspections. This project involves heavy use of PLC equipment as data concentrators for the agency's SCADA system. Local automatic control is largely performed by on site PLC equipment.

**Forest Grove and Hillsboro Wastewater Treatment Facilities,
Unified Sewerage Agency of Washington County, Oregon**

Project Designer. Work included process upgrades to aeration basins and blowers, RAS pumping, secondary clarifiers, RS pumping, EFFL pumping, power, controls, electrical power distribution, and PLC programming.

**Sewerage Improvements Project, Banks Wastewater Treatment
Facility, Unified Sewerage Agency of Washington County, Oregon**

Project Designer. Project responsibilities include technical assistance for electrical and control systems design for a remote pumping station. PLC equipment gathers alarm, well level, and equipment status data for transmission to the agency's SCADA system. This system also provides control sequencing for pump motor drives and an automatic standby power system.

James R. Hansen, P.E.

Assignment

Principle In Charge

Education

B.S., Civil Engineering, Oregon State University, Corvallis, Oregon, 1983

B.S., Biology, Salisbury State College, Salisbury, Maryland, 1974

Registration

Professional Engineer No. 6965, Idaho, 1993

Professional Engineer No. 34027, Washington, 1997

Professional Engineer No. 13681PE, Oregon, 1987

Experience

18 years

Joined Firm

1991

Experience Summary

Jim Hansen applies his project management and technical skills and experience to the planning, design, and management of municipal storm water and sanitary facilities and programs. Jim's project experience includes all facets of storm water and sanitary collection system management, including: master planning, sanitary and storm water conveyance system rehabilitation and design, pump station rehabilitation and design, maintenance program development and optimization, storm water utility development, regulatory compliance, as well as other water resource and infrastructure projects. His emphasis has been on improving level of service and optimizing the public's investment in the conveyance system by integrating maintenance and operational issues into the planning and design processes. In addition, as project manager for many water resource projects, he has involved shareholders in the planning and design process to ensure that the views of the community and users are incorporated into the product.

Mission Sewage Pump Station Expansion, City of Salem, Oregon.

Project Manager. Brown and Caldwell won this competitive project to assist the City with the expansion and upgrade of the Mission Sewage Pump Station. The facility was expanded to meet projected flows of 9.0 million gallons per day. Alternatives considered included the rehabilitation of the existing facility and the design and construction of a new pump station. The location of the facility presented several challenges. The existing facility was below the 100-year flood elevation; the area was identified as having a high risk of soil liquefaction during seismic events, and upgrades to the access road required approval from the Burlington Northern Railroad. A new pump station was designed and constructed for below the estimate to rehabilitate the existing facility. The new pump station included a self-cleaning trench-style wet well and three 4.5 mgd submersible pumps. Also, a new generator and electrical control building were constructed. In addition, the design and construction were to be completed during a short time to satisfy a MAO from the Oregon Department of Environmental Quality.

Cornelius Force Main Replacement Project, Clean Water Services, Washington County, Oregon.

Project Manager. Jim Hansen led the design team to prepare construction drawings and specifications for replacing the existing 10-inch diameter force main. Approximately 3,700 feet of new 14-inch diameter force main was designed and bid as part of a construction project that is to install a new 72-inch water main parallel to the force main. Coordination between Unified Sewerage Agency, City of Hillsboro, and the water main engineer

was required for success. Activities included services during bid period, construction inspection and engineering support. As-built drawings will be prepared upon completion of construction activities.

Cornelius Pump Station Replacement Project, Clean Water Services, Washington County, Oregon

Project Manager. The first phase of this project will propose and evaluate alternatives for replacing the existing Cornelius Pump Station. The existing station is not capable of conveying future flows and is currently experiencing clogging under low flow conditions. Brown and Caldwell will work with CWS personnel to develop feasible alternatives and to perform an alternatives evaluation that will select a preferred alternative for design. The alternatives evaluation will consider cost (construction, design, and life-cycle costs) as well as non-cost factors, such as safety, permitability, constructability, and neighborhood friendliness.

Middle Grove and Church Street Sewage Pump Station Rehabilitation, City of Salem, Oregon.

Project Manager. As a Consultant of Record to the city, Brown and Caldwell was selected to prepare plans and specifications for these two sanitary sewage pump station rehabilitation and expansion projects. The Middle Grove project required the total replacement of the existing facility. The new pump station provides up to a maximum flow of 500 gallons per minute (gpm) firm capacity (one pump redundant). The pumps, wet well, onsite piping, auxiliary generator, instrumentation and controls, and telemetry systems were all upgraded. The project included the design of a new six inch, 2,500-foot force main. The Church Street Sewage Pump Station Rehabilitation project expanded the capacity of the facility from 1.2 million gallons per day (mgd) to 3.0 mgd. A complete upgrade of all facility components was required for this facility to meet City reliability and redundancy requirements. Both of these projects were completed under a short time frame to ensure City compliance with a directive from the Oregon Department of Environmental Quality.

Memberships

American Public Works Association
Pacific Northwest Pollution Control Association
Past Chair of APWA Pump Station Design Seminar

W. Montague Hazlehurst, P.E.

Assignment

Site/Civil

Education

M.S., Hydrology, University of Arizona, 1988

B.S., Civil Engineering, University of Arizona, 1987

B.S., Forest Management, Northern Arizona University, 1982

Registration

Professional Engineer No. 16627, Oregon, 1993

Experience

10 years

Joined Firm

1987

Experience Summary

Monty Hazlehurst has ten years of professional experience including studies related to and the design of water and wastewater treatment plants, wastewater collection systems, water distribution systems, pumping stations, sludge handling facilities, stormwater management systems, and solid waste facilities.

Stormwater Management System Design, Avondale Wastewater Treatment Plant, City of Avondale, Arizona

Project Engineer. Designed a pumping station and detention basins.

Stormwater Management System Design, Pino Yard Solid Waste Transfer Facility, City of Albuquerque, New Mexico

Project Engineer. Design work included a pumping station and detention basin, paving and grading and other civil design, and electrical. Provided utility coordination, preparation of plans and specifications, and cost estimates.

Wastewater Treatment Plant Expansion and Upgrade, City of Woodburn, Oregon

Project Engineer. Developed predesign report including design data, hydraulic profile, chemical feed, plant water system, emergency storage ponds. Designed civil/site work including grading, paving, outside piping, stormwater collection, and pumping stations.

Process Alternatives Evaluation, Columbia Boulevard Wastewater Treatment Plant Facility Plan, Bureau of Environmental Services, City of Portland, Oregon

Project Engineer. Develop plans and specifications for civil/site work including grading, paving, and outside piping. Assisted with evaluation of primary clarifier alternatives.

Design of Facilities Improvements, Forest Grove and Hillsboro Wastewater Treatment Plants, Unified Sewerage Agency, Washington County, Oregon

Project Engineer. Responsibilities included preparation of plans and specifications for a return activated sludge pumping station, effluent pumping station, tank drain pumping station, paving and grading, and odor control.

Operation and Maintenance Manuals, Kellogg Creek Water Pollution Control Plant, Clackamas County, Oregon

Project Engineer. Developed operation and maintenance manuals for secondary clarifiers, an ultraviolet light disinfection system, sodium hypochlorite disinfection system, and the odor control facilities.

Design of Improvements, Bainbridge Island Wastewater Treatment Plant, City of Bainbridge Island, Washington

Project Engineer. Responsibilities included preparation of plans and specifications for headworks, new secondary clarifier, chlorine disinfection system, and sludge pumping stations.

Odor Control Study and Design, Kellogg Creek Water Pollution Control Plant, Clackamas County, Oregon

Project Engineer. Responsibilities included development of alternatives, economic analysis, and preparation of plans and specifications for headworks, odor control facilities, a primary effluent recirculation system, and an activated carbon adsorption system.

Mechanical and Electrical Design Modification and Replacement, Airport Road Wastewater Treatment Plant, City of Santa Fe, New Mexico

Project Engineer. Responsibilities included preparation of plans and specifications.

Electrical Cost Estimate, San Luis Obispo Wastewater Treatment Plant, City of San Luis Obispo, California

Project Engineer.

Electrical Design of Control Center, Orange County Sanitation District, Los Angeles, California

Project Engineer. Responsibilities included preparation of plans and specifications.

Civil Design of Siphon Structure and Pumping Station, 99th Avenue Interceptor, City of Tolleson, Arizona

Project Engineer. Responsibilities included paving and grading, preparation of plans and specifications, and submittal review during construction.

Miscellaneous Plant Improvements, Southside Water Reclamation Plant, City of Albuquerque, New Mexico

Project Engineer. Responsibilities included a study and report on problems associated with the HVAC systems, grit removal facilities, electrical manhole flooding, and a mechanical bar screen.

Thomas R. Lebo

Assignment

QA/QC—Constructability

As built

Construction Sequencing

Education

B.S., Construction Engineering, Iowa State University, 1979

Construction Claims, AGC course covering all aspects of claims

Experience

22 years

Joined Firm

1992

Experience Summary

Tom Lebo has 22 years' experience in operations and construction of process facilities. His responsibilities included operations management, project management, project engineering, field supervision, and estimating. Mr. Lebo served as Brown and Caldwell's construction manager on numerous wastewater treatment plant upgrades for the Unified Sewerage Agency of Washington County, Oregon and is currently providing construction management for the improvements to the Woodburn, Oregon treatment plant.

Construction Management Services, Facility Improvements Project, City of Woodburn, Oregon

Construction Manager. Provided construction management during the renovation and expansion of the existing treatment plant. The project included the construction of a new headworks, an upgrade to the two existing primary clarifiers, and the addition of a complete secondary treatment system including aeration basins, blower building, three secondary clarifiers, effluent filters, and ultraviolet (UV) disinfection. Solids processing was also upgraded with renovated digesters, new dissolved air flotation thickeners (DAFTs), new facultative sludge lagoons, and new storage lagoons.

Construction Management Services, Facility Upgrade, City of Florence, Oregon.

Construction Manager. Provided construction management for the \$10 million upgrade of the treatment facility. Construction included major improvements and the expansion of existing activated sludge plant, including new headworks, aeration, secondary clarifiers, UV disinfection, outfall, fixed submerged cover anaerobic digester, and centrifuge dewatering.

Construction Management Services, Headworks Project, Clean Water Services, Washington County, Oregon

Construction Manager/Resident Engineer. Administered construction of two Brown and Caldwell design projects at existing operating plants in Hillsboro and Forest Grove, Oregon. Construction costs for both plants was \$4 million.

Design/Build Construction Services Biosolids Facility Upgrade Project, Clackamas County, Oregon

Project Manager. Responsible for design, procurement, and construction of a biosolids thickening and dewatering facility for the Tri-City Water Pollution Control Facility located in Oregon City. This \$4.45 million project will add two gravity belt thickeners for waste activated sludge and recuperative

thickening and a high speed centrifuge for dewatering. The project also includes a truck loading area, improvements to the existing digester mixing, electrical, controls, start-up, testing and modifications to the computerized operations and maintenance manual.

Construction Management Services, Pollution Control Facility Upgrade, City of Grants Pass, Oregon

Construction Manager. Provided construction management for this design/build, fast track project to add a second UV disinfection channel to the existing treatment facility. Brown and Caldwell Constructors was the general contractor for design and construction of these improvements.

Construction Management Services, Biological Nutrient Removal Optimization Project, Unified Sewerage Agency, Washington County, Oregon

Construction Manager. Construction manager for this design/build, fast track project to improve biological nutrient removal at the Durham facility by adding volatile fatty acids pumps, piping, and controls. Brown and Caldwell Constructors acted as general contractor for design and construction of these improvements.

Construction Management and Inspection/Observation Services, Corvallis Wastewater Reclamation Plant Improvements, City of Corvallis, Oregon

Construction Manager. Provided construction management and inspection services for improvements to the influent pump speed controls and replacement of the vertical drum screen with a bar screen.

Construction Management Services For Small, Concurrent Projects, Clean Water Services, Washington County, Oregon

Construction Manager/Resident Engineer. Projects include:

- Forest Grove/Hillsboro Irrigation and Outfall Improvements
- Durham Influent Pump VFD Replacement
- Banks Pumping Station
- Banks Force Main
- Enschede Pipeline, Hillsboro
- Forest Grove Effluent Irrigation Demonstration Project

Memberships

National Society of Professional Engineers
Construction Specifications Institute, CDT

Dale W. Lough, P.E.

Assignment

Design

Education

M.S., Civil Engineering, Washington State University, 1995

B.S., Civil Engineering, Purdue University, 1994

Registration

Professional Engineer No. 60231PE, Oregon, 1999

Experience

4 years

Joined Firm

1996

Experience Summary

Dale Lough is a water resources engineer in Brown and Caldwell's Portland office. Mr. Lough specializes in hydrologic and hydraulic modeling and provides modeling, design, and GIS support to the Portland water resources/infrastructure group.

Ankeny Pump Station Revisions, City of Portland, Oregon

Project Engineer. This project involves preliminary design for the rehabilitation/replacement of an existing combined sewer pump station with a total capacity of 150 MGD. Responsibilities include project coordination and mechanical design.

Ferry Street Pump Station Rehabilitation, City of Salem, Oregon

Project Engineer. Analyzed various alternatives associated with redesigning/replacing a sewage pump station with a capacity of 1,200 gpm.

Middle Grove Pump Station Rehabilitation, City of Salem, Oregon

Associate Engineer. This project involved design and construction activities required to upgrade of a sewage pump station to a capacity of 500 gpm. Project also includes design of 2,500 feet of pipeline.

Church Street Pump Station Rehabilitation, City of Salem, Oregon

Associate Engineer. This project involved design and construction activities required to upgrade a sewage pump station to a capacity of 2,000 gpm. Project also included design of 60 feet of force main.

Camp Pendleton Sanitary Sewer Master Plan, U.S. Marines, Camp Pendleton, California

Project Engineer. Currently working with Access and ArcView GIS to build an inventory database of 2,200 manholes and 2,000 pipes. Modeling of the system utilizes Eagle Point's Sanitary Sewer modeling package. Final products will be facilities maps and models for 9 tributary basins. Problem identification and recommendations will also be included.

Wastewater Facilities Plan, City of Florence, Oregon

Associate Engineer. Worked to develop a XP-SWMM-based sanitary sewer model for the city. Used both ArcView and MapInfo GIS systems to develop parameters necessary for the model runs as well as to display the results graphically.

Collection System Prioritization Model, City of Salem, Oregon

Associate Engineer. A spreadsheet model was developed to perform the priority ranking process through consideration of the risk and consequence of failure factors. The city has used the model to identify a priority ranking list of capital improvement projects for the next fiscal year. The city is expected to automate the process within the next few years.

Public Facilities Plan, City of Portland, Oregon

Associate Engineer. Developed both hydrologic (HEC-1) and hydraulic (HEC-RAS) stormwater models for several basins within the city. Used MapInfo GIS to develop parameters necessary for the model runs as well as to display the results graphically.

Sewer Condition Assessment, City of Cleveland, Ohio

Associate Engineer. Constructed a Microsoft Access-based manhole condition assessment system. Allowed user to easily transfer information from field sheets to a database. Also provided additional data management and mapping support.

Doc Sud Environmental Evaluation, Providence of Buenos Aires, Argentina

Associate Engineer. Assisted in the development of a Microsoft Access-based data management system utilizing an ODBC link to MapInfo GIS to display the data.

Memberships

Urban and Regional Information Systems Association (Oregon and Southwest Washington Chapter)

Publications

"GIS and Industrial Pretreatment: Making Life a Little Easier" presented as part of the Water and Environment Short School, Clackamas Community College, Portland, Oregon; March 1999.

"Lessons Learned for Practical Application of GIS", co-presenter at the annual Pacific Northwest Pollution Control Association meeting, Portland, Oregon; October 1998.

"A Computerized Decision Support System Applied to NAPL Cleanup," D. Lough and W. Hathorn, American Society of Civil Engineers, NAPL Conference, Washington, D.C., November 1996.

"Decision Support System for the Cleanup of NAPL Contaminated Soils," M.S. Thesis, Washington State University, 1995

Marc Maisonville

Assignment

Instrumentation and Control

Education

B.Ap.Sc. Electrical Engineering, First Class, University of British Columbia, Vancouver, Canada 1980

B.Sc., Honors Physics, University of British Columbia, Vancouver, Canada, 1978

Registration

Professional Engineer, British Columbia, Canada, 1986

Experience

20 years

Joined Firm

2000

Experience Summary

Marc Maisonville is an instrumentation and control (I&C) specialist with 20 years of experience in such areas as conceptual design, commissioning, start-up procedures, O&M, field testing, and troubleshooting of plant instrumentation and control systems.

Greater Vancouver Regional District, Wastewater Treatment Plant Improvements, Vancouver, British Columbia, Canada

Task Leader. Acted as electrical leader for a \$400 million, multi-contract, 3-year project that upgraded the Annacis and Lulu Island Wastewater Treatment Plants. Supervised a team of professional staff in the design and production of over 1,000 detailed electrical and instrumentation diagrams for issuance to the construction contractor. Designed of controls for headworks upgrades at both plants, including bar screens and grit screens. Also designed electrical controls systems for single stage centrifugal blowers, positive displacement diaphragm sludge pumps and dewatering equipment including centrifuges, polymer systems and biosolids hoppers.

Assisted in the pre-commissioning of control systems associated with the final stages of construction at the Annacis and Lulu Island Wastewater Treatment Plants. Completed loop testing for the headworks improvements.

Construction Management Support, Wastewater Treatment Plant Expansion, City of Gresham, Oregon

Field Support. Performed field inspections and responded to requests for clarification. Completed electrical and instrumentation controls loop testing to verify control function for grit pumps, bar screening, grit screening, positive displacement diaphragm sludge pumps.

Sweylocken Pumping Station, King County Department of Natural Resources, King County, Washington

Designer. Completed electrical design, including a standby generator, for a 27 mgd sewage pump station. Completed specifications and drawings.

Columbia Boulevard Wastewater Treatment Plant Influent Pump Station Upgrade, City of Portland, Bureau of Environmental Services, Portland, Oregon

Designer. Provided electrical and Instrumentation and controls design for the addition of 3 high water centrifugal submersible pumps.

Biosolids Handling Improvements, Clackamas County, Oregon

Designer. Currently completing electrical design for the addition of a centrifuge, polymer systems, and gravity belt thickeners at the Tri-City plant.

**Tri-City Water Pollution Control Plant Aeration Basin Upgrade,
Clackamas County, Oregon**

Designer. Provided electrical and instrumentation and controls design for flow monitoring and improvements to dissolved oxygen control.

**Tryon Creek Wastewater Treatment Plant Aeration Basins
Modifications, City of Portland, Bureau of Environmental
Services, Portland, Oregon**

Construction Support. Providing electrical construction support for the installation of 250 horsepower single stage centrifugal blowers.

**International Airports Projects, Joint venture with Bechtel Co.,
Jeddah, Kingdom of Saudi Arabia**

Senior Engineer. Senior member of design team that was responsible for the following:

- Development of master plan and conceptual design for a major expansion of the Jeddah international airport.
- Review of design, specifications, start-up procedures and O&M documentation submitted by airport construction contractors.
- Evaluation of proposals including the preparation of technical evaluation reports and recommendations for award.
- Evaluation of the condition of existing systems and the preparation of recommendations for improvement or replacement.

**Trans Mountain Pipe Line Co. Ltd., Vancouver, British Columbia,
Canada**

Electrical Engineer. Managed projects involving technical and economic review, budgeting, scheduling, equipment procurement, supervision of construction and commissioning. Automated an existing pump station and commissioned a new pump station in Alberta, British Columbia.

Fiberglas Canada, Inc., Mission, British Columbia, Canada

Plant Electrical Engineer. Supervised electrical, instrumentation and control personnel in a union environment. Scheduled and budgeted for preventive maintenance and project work, including coordination of plant personnel and contractors. Assisted in plant commissioning, start-up testing and troubleshooting.

Memberships

Association of Professional Engineers and Geoscientists of British Columbia
Institute of Electrical and Electronic Engineers, Inc. (IEEE)
Instrument Society of America (ISA)

Assignment

Cost Estimating

Education

Florida Junior College, selected courses

Experience

25 years

Joined Firm

1992

Registrations

Certified Professional Estimator by American Society of Professional Estimators (AACE)

Memberships

Member American Society of Professional Estimators (AACE)

Relevant Expertise

- AutoCAD Release 14 and 2000 for Windows
- Timberline Cost Estimation Program (Version 6.5)
- Primavera Construction Scheduling (P3)(Version 3.0)
- Microsoft Project

Experience Summary

Butch has 25 years of cost estimation, construction management, inspection, and mechanical design experience. As Sr. Project Estimator/Construction Manager for Brown and Caldwell his responsibilities include cost loaded construction schedules tied into the Timberline cost estimates, construction scheduling, conceptual and detailed cost estimating, QA/QC review of all estimates, project coordination with owners and contractors, onsite inspection and management, onsite design/build management, mechanical and civil design, and equipment procurement.

Wailuku-Kahului Water Reclamation Facility Improvements, Maui, Hawaii

Project estimate consisted on new headwork's, new aeration basin, sludge holding tanks, blower building, chlorination facility and operations building modifications. One of the material requirements was that all piping and valve had to be stainless steel. Obtained the latest material and equipment quotes to meet the cities requirements. The BC estimate was for \$ 11,418,077, and final bid received was at 11,379,000

New Influent Headworks Project, San Buenaventura Water Reclamation Facility, San Buenaventura, California

Cost Estimator. The project consisted of new headworks complex, aerated grit tanks, chemical system, odor control process unit and associated site piping and amenities. BC engineers estimate was \$ 11,296,830 and the actual low bid was 11,174,001.

Easterly Water Reclamation Facility, Vacaville, California

Cost Estimator. Brown and Caldwell was contracted to do estimating, scheduling and constructability review on this project. Project consisted of headwork's modifications, digester pump room modifications, aeration basins, influent pump station, screening facilities, and modifications to existing aeration basins, chlorination/dechlorination facility and chemical feed facility.

Conceptual Estimate, Sandhill Road Wastewater Treatment Plant, Kissimmee, Florida

BC estimate is \$ 17 million. This project was estimated to provide an independent cost analysis of a Florida DOT estimate on relocation of a portion of the treatment plant due to State highway expansion. The state prepared an estimate on the opinion of cost and BC prepared a separate estimate. State cost to reimburse the City will now be decided by arbitrator. Plant relocation consisted of demolition of existing facility, construction of 2-130 diameter clarifiers, aeration basins, chemical facilities, operations building, relocation of influent and effluent piping.

Design/build of Pretreatment and Solids Handling Upgrade, Fulton County, Georgia

Onsite Construction Manager. Responsible for construction management of subcontractors, construction scheduling, cost estimating, project coordination with owner and contractor, onsite inspection and management, mechanical and civil design, and equipment procurement for this 1.125 million dollar design/build project.

Wastewater Treatment Plant Expansion, City of Albany, Georgia

Office Construction Manager. WWTP expansion and process unit upgrades to main treatment plant, solids handling facilities, cost estimating and construction scheduling, contractor over site and coordination, shop drawing reviews, and site inspections.

Wastewater Treatment Plant Expansion, Cleveland, Ohio

Senior Mechanical Designer. Responsibilities included preparation of mechanical layouts; hydraulic calculations, specifications for three 140-foot diameter secondary clarifiers, VTSH RAS pumping station; TF/SC structure; blower building and yard piping for an expansion of a municipal plant located in Cleveland, Ohio. Also, mechanical layout, hydraulic calculations, and specifications for the expansion of the City of Albany WPCP to 64 mgd, PWWF. Process units that I was responsible for included a VTSH influent pumping station, primary treatment structure with mechanical bar screens, two 100-foot diameter secondary clarifiers with RAS pumping station, effluent outfall to river and overall discipline coordination of the design package. In addition to the design on the Albany project, additional duties also included construction management, shop drawing review and coordination with the Owner during the construction phase of this project.

Combined Sewer Overflow Facilities, City of Atlanta, Georgia

Senior Mechanical Designer. Mechanical design, hydraulic calculations, equipment layout, and discipline coordination on five combined sewer overflow facilities. Process includes screening of influent water and removal of odors via scrubber system and chemical treatment of effluent prior to discharge in existing creeks.

Wastewater Treatment Expansion, Sara Lee Corporation

Onsite Construction Manager. Provided construction services for the 3.0 million dollar total fast track construction of the expansion of the bakery WWTP process units to meet the plant expansion and permit requirements. Responsibilities included construction management of contractors, construction scheduling, cost estimating, project coordination with owner and contractor, on-site inspection and management, mechanical and civil design, and equipment procurement.

Bill R. Meloy, P.E.

Assignment

Mechanical

Education

B.S., Mechanical Engineering, Oregon State University, 1963

Registration

Mechanical/Environmental Engineer No. 6830, Oregon, 1970

Mechanical Engineer No. 18794, Washington, 1979

Professional Engineer (ME) No. 7235, Hawaii, 1991

Professional Engineer 94-270151-2202, Utah, 1994

Experience

35 years

Joined Firm

1974

Relevant Expertise

- Innovative designs for composter material handling.
- Composter blower design.
- Frequent participation in project reviews, value engineering, and coordinating cross-checks

Experience Summary

Bill Meloy is Chief Engineer of Brown and Caldwell's Portland, Oregon, office. He has 35 years of experience in engineering design, the last 25 in wastewater and related projects. He has managed major projects ranging from pump stations to complete plant design; including energy studies, feasibility studies, design, construction management, and review board participation. Mr. Meloy has been project manager for secondary area projects for the Columbia Boulevard Wastewater Treatment Plant in Portland, Oregon, and for the plant upgrades at the Lahaina and Kihei Wastewater Treatment Facilities, Maui, Hawaii.

Design of Storm Water Pumping Station, Portland International Airport Airtrans Center, Port of Portland, Oregon

Project Manager.

Design of Aeration System Gresham Wastewater Treatment Plant, Gresham, Oregon

Project Engineer. Project included new blower building, fine bubble aeration systems, and multiple process mode capability.

Construction Management Services, Regional Wastewater Treatment Facility, Eugene-Springfield, Oregon

Project Engineer. This project was performed as part of the Brown and Caldwell-Sverdrup joint venture. Bill assisted with commissioning, startup and testing of various mechanical equipment

Design of Plant Improvements, Kihei Wastewater Treatment Facility, County of Maui, Hawaii

Project Manager. Project encompassed headworks, aeration systems, clarifiers, chlorination, and final filters.

Design of Plant Improvements, Lahaina Wastewater Treatment Facility, County of Maui, Hawaii

Project Manager. Project included headworks, aeration systems, clarifiers, ultraviolet disinfection, and final filters.

Standby Generator System Evaluation and Design, King County, Seattle, Washington

Project Engineer. Designed the system to evaluate existing generators and performed evaluations on a number of the County's existing sites. Follow-up includes evaluation and retrofit design of existing standby generator installations.

Design of Chlorination System, Columbia Boulevard Wastewater Treatment Plant, Bureau of Environmental Services, City of Portland, Oregon

Project Manager. This project won the 1992 Grand Award and Project of the Year Award from the Consulting Engineers Council of Oregon.

Design of Process Upgrades, Columbia Boulevard Wastewater Treatment Plant, Bureau of Environmental Services, City of Portland, Oregon

Project Manager. Upgrades include modifications to existing blowers and addition of new high-efficiency blowers.

Energy Audit and Technical Assistance Wastewater Treatment Plant Study, City of Salem, Oregon

Project Engineer. The study assisted the city in obtaining over \$4 million in grants and loans.

Mechanical Systems Design Supervision, City of Corvallis, Oregon

Project Engineer. Systems are part of a 10-mgd wastewater treatment plant.

City of Grants Pass, Oregon

Project Engineer. Prepared an Operation and Maintenance Manual for the Municipal Wastewater Treatment Plant.

Sewage Lift Pump Station Design, Dublin-San Ramon Wastewater Treatment Plant, Dublin, California

Project Engineer.

Innovative Energy Recovery Systems and Sludge Gas Utilization Design, City of Corvallis, Oregon

Project Engineer. Heating system used is part of an award-winning plant design.

Fuel Cell Installation Design, Columbia Boulevard Wastewater Treatment Plant, Bureau of Environmental Services, City of Portland, Oregon

Project Engineer. Evaluated existing fuel cell installations on the East Coast. Designed the fuel cell system interface with the existing digester gas system and designed the heat recovery system to use fuel cell waste heat.

Memberships

Consulting Engineers Council of Oregon

American Society of Heating, Refrigerating and Air-Conditioning Engineers

Awards

1992 Engineering Excellence Grand Award and Project of the Year award from the Consulting Engineers Council of Oregon (CECO) for the City of Portland Chlorination Facility Design, Portland, Oregon (project manager).

1990 Engineering Excellence Grand Award and Project of the Year award from the CECO for Willow Lake Wastewater Treatment Plant Energy Modifications, Salem, Oregon (project manager).

Assignment:

Structural

Education

MS, Structural Engineering, University of California, Berkeley, 1978

BS & MBA, Civil Engineering, Washington University, 1977

Registration

Licensed Civil Engineer: Florida, Oregon, Washington & California

Licensed Structural Engineer: California, Washington

Experience

22 years

Joined Firm

1998

Relevant Expertise

- Extensive municipal design projects completed for both wastewater and potable water.
- Seismic resistant design expertise.
- Utilizes geotechnical means to minimize structural cost.
- High tech facility design experience with fast track scheduling.

Experience Summary

Larry Oeth has provided civil and structural design services for a wide range of clients for over 22 years. His responsibilities have included structural design of municipal and industrial projects with specific expertise in seismic analysis and design. Projects include large (up to 150 million gallons per day) municipal water and wastewater treatment plants, heavy and high-tech industrial facilities, commercial buildings to 200,000 square feet and numerous remodel projects. Larry combines high-reliability design quality typical of municipal projects while maintaining budget and schedule constraints typical of industrial process work.

Anaerobic Digesters Rehabilitation, Point Loma Sewage Treatment Plant, San Diego, California

Project Engineer. Provided engineering services for project which included cleanout, wall repair, re-design and repair of a floating cover, and structural design of an engine generator building which used the digesters' off-gas. This same project included rehabilitation of existing grit removal basins, rehabilitation of existing odor control systems, and design of two 50 mgd sedimentation basins with associated inlet/outlet channels.

Welded Tube Mill Facility, WTC America, Portland, Oregon

Project Engineer. Providing structural and architectural design of this 200,000 SF slitting and fabricating facility. Design features included driven grout pile foundations (buildings and metric equipment), 50 ton x 120 ft high speed bridge cranes, custom veerindeal truss mill building, provision for extensive truck and rail traffic and strict Port of Portland development guidelines and review.

Anaerobic Digesters Rehabilitation, Pierce County, Washington

Project Engineer. Providing structural engineering services for project which includes removal of existing steel floating covers and replacement with fixed concrete covers. Prestressing system and gunnite cover investigated for determination of efflorescing cracks and repair.

Spring Street WWTP Reliability Improvements, City of Klamath Falls, Oregon

Project Engineer. Responsible for all structural and architectural design elements including extensive modifications to an existing aeration basin, new secondary clarifier, new 4400SF control, lab and administration building, enclosed DAFT facility, hypochlorite facility, reclaimed wastewater pump station and other associated structures on poor soils, necessitating use of piles for support. In addition, close consultation with the geotechnical engineer resulted in design of two major structures without piles, saving approximately \$300,000 construction cost.

WWTP Expansion, City of Florence, Oregon

Project Engineer. Responsible for all structural design elements including headworks, aeration basins, secondary clarifiers, a new digester, ultraviolet disinfection, and three process related buildings. In addition, will conduct a pilot study to determine geotechnical requirements for densifying on-site sands to prevent seismic induced liquefaction.

WWTP Design, Cities of Eugene & Springfield, Oregon

Project Engineer. Responsible for structural design elements including eight 130 foot diameter secondary clarifiers, inlet/outlet channels, chlorine handling and contact facility, and outfall pipe into the Willamette River with diffuser manifold system.

WWTP Expansion, City of Gresham, Oregon

Project Engineer. Providing civil design including grading, drainage, roadways and site improvements. Coordinating landscape and irrigation design and providing assistance with project construction sequencing.

Church Street Pump Station, City of Salem, Oregon

Project Engineer. Providing structural and architectural design including ventilating the existing wet/drywells, addition of a pump hoist and trolley, addition of a new diesel generator building and re-roofing the entire structure.

Mission Street Pump Station, City of Salem, Oregon

Project Engineer. Providing structural and architectural design including new 10MGD pump/wetwell system built into a bankside to minimize floodplain effects, new generator building built to minimize greenway impacts and conforming to its design standards, improved access roads utilizing rockery-style retaining walls for cost and aesthetic purposes. Site issues included access across an existing rail right-of-way and avoidance of two fiber optic trunk lines.

WWTP Improvements and Restoration, City of Boise, Idaho

Project Engineer. Provided structural design and restoration engineering for grit chamber and sound attenuation improvements. Grit chambers required extensive work to repair sulfide induced corrosion, pitting and general wear.

Bryan K. Paulson, P.E.

Assignment

Technical Advisor

QA/QC

Education

B.S., Civil Engineering, Oregon State University, Corvallis, 1976

Registration

Professional Engineer No. 10899, Oregon, 1980

Experience

23 years

Joined Firm

1980

Experience Summary

Bryan Paulson has 23 years of experience in wastewater and water engineering. Currently he is group supervisor for Brown and Caldwell's Portland wastewater team. Mr. Paulson has served as project manager, providing direction to the planning, design, and construction management of wastewater treatment plant (WWTP) and water treatment facilities.

Ankeny Pump Station Project, Bureau of Environmental Services, City of Portland, Oregon.

Project Manager. Provided preliminary design and project planning services for this project.

Study and Design of Solids Handling Improvements, Oak Lodge Sanitary District, City of Milwaukie, Oregon

Project Manager. Study and design of gravity belt thickening and belt filter press dewatering systems.

Design Build of Disinfection System, City of Seaside, Oregon

Principal in Charge and Advisor. Assistance during preparation of design documents and construction of ultraviolet disinfection system.

Study and Design of Pump Station Improvements, City of Salem, Oregon.

Primary contact for multidisciplinary civil consultant of record projects

Design of Expansion, Gresham WWTP, City of Gresham, Oregon

Project Manager. Design and construction management of 5 mgd expansion, including bar screens and grit removal.

Design of Improvements, Kellogg Creek WPCP, Clackamas County, Oregon

Project Manager. Design and construction management of influent pumping, flow measurement, screening, grit removal aeration and RAS modifications, digester mixing, and odor control systems, including covering of primary clarifiers.

Study of Solids Handling Improvements, Clackamas County, Oregon

Project Manager. Study of solids handling improvements for centrifuge dewatering and storage of biosolids for the Kellogg Creek and Tri-City Water Pollution Control Plants.

Design of Columbia Boulevard Wet Weather Treatment Facilities, City of Portland, Oregon

Project Engineer. Designed improvements to the secondary bypass channel and effluent pumping station.

Wastewater Planning, Columbia Boulevard WWTP Facility Plan, Bureau of Environmental Services, City of Portland, Oregon

Project Engineer. Responsible for: planning criteria, hydraulic profile, primary clarifiers, and effluent pumping.

Collection System Pumping Stations, Bureau of Environmental Services, City of Portland, Oregon

Project Manager. Prepared design manual chapters regarding cycle time, wet wells, and auxiliary power. Design of Holman station upgrade.

Design of Regional WWTP, King County Metro, Renton, Washington

Project Engineer. Designed the secondary sedimentation tanks with submerged launders. Flow through sedimentation tanks was controlled by 36-inch magnetic flow meters and butterfly valves. Prepared technical specifications and prequalification documents for fine bubble aeration system.

Design of Influent Pump Station, Forest Grove Wastewater Treatment Plant, Unified Sewerage Agency, Washington County, Oregon

Project Manager. Design and construction management of influent pump station for the Forest Grove Wastewater Treatment Plant.

Design of Improvements, Forest Grove Solids Handling Facilities, Unified Sewerage Agency, Washington County, Oregon

Project Manager. Managed the design and construction management, including odor control, solids thickening and dewatering facilities.

Sewer System Design, West Philomath Boulevard System, City of Corvallis, Oregon

Project Manager. Managed design of the system.

Mid-County Interceptor Sewer Design and Construction, City of Gresham, Oregon

Project Engineer. Served as designer and construction manager.

Regional Wastewater Management Program, Cities of Eugene & Springfield, Oregon

Project Engineer. Responsibilities included predesign of interceptor and force main associated with the program.

Influent Forcemain Design, Regional WWTP, City of Eureka, California

Project Engineer. Provided design of a forcemain to the new plant.

Assignment:

Operations and Maintenance

Education

Pre-Med Certificate, Portland State University, 1974

Water and Wastewater Technology - Course work and instructor, 1974-Present

Registration

Wastewater Plant System Operator, Grade IV, Oregon

Wastewater Treatment Plant Operator, Group IV, Washington

Water Treatment Systems Operator, Grade II, Oregon

Experience

27 years

Joined Firm

1995

Experience Summary

Terry Price has been in the water and wastewater field for 27 years as an operator, process control analyst, and project manager. He has spent considerable time traveling throughout the United States and Canada on a consulting basis for private companies, troubleshooting treatment plants and has evaluated many facilities for treatment efficiency and budgetary control. Mr. Price has experience in start-up of water and wastewater facilities, and optimizing and training personnel in the efficient operation of all types of water and wastewater treatment plants.

Business Process Re-engineering and Business Plan, Operations and Pumping Station Assessment, Unified Sewerage Agency of Washington County, Oregon

Project Scientist for an operations evaluation of four treatment plants and 39 pumping stations as part of a business process re-engineering assessment and business plan development for Unified Sewerage Agency's Wastewater Treatment Department. The project identified labor and non-labor cost-saving measures, and other areas for making the department competitive with the private sector. Implementation of the business plan will result in savings of up to \$1.5 million, or 10 percent of the FY 99/00 budget.

Wastewater and Water Treatment Plant Optimization- Various clients

Senior Operations Specialist. Responsibilities included start-up and optimization of wastewater facilities and pumping stations, and training personnel at the following facilities:

- Gresham OR WWTP
- Florence OR WWTP
- Woodburn OR WWTP
- Duluth MN WWTP
- Charlotte, North Carolina WWTP
- Roseburg, Oregon WWTP

Training and Commissioning Services, Greater Vancouver Regional District, British Columbia, Canada

Operations Leader. Responsibilities included writing all computerized operations manuals, training plant operations staff in the operation of a secondary treatment plant utilizing trickling filter/solids contact (TF/SC), centrifuge dewatering, thermophilic anaerobic digestion, DAF thickening of waste sludge, etc. Sites include Annacis Island and Lulu Island WWTPs.

Contract Operations, Cities of Lebanon and Philomath, Oregon

Project Manager. Contract operations project manager of two water and two wastewater treatment plants and all pumping stations for the cities of Lebanon and Philomath - OMI, Inc. Functions included budget preparation, marketing, process troubleshooting, capital improvement projects, sludge disposal management, plant start-up and regulatory interfacing.

Durham Advanced Wastewater Treatment Plant, Unified Sewerage Agency, Washington County, Oregon

Process Control Analyst. Reviewed all operational and laboratory data and recommended process control parameters for 20-mgd facility operating in nitrification/denitrification with phosphorus removal. Duties included process control of thickening and dewatering process and incineration of sewage sludges. Started up and optimized new Sherwood pump station.

City of Vancouver Westside and Marine Park Water Reclamation Plants, Vancouver, Washington

Shift Supervisor. Start-up team member of the City's new Marine Park Water Reclamation Facility. Duties included training plant operators, coordinating all equipment-supplier training and co-authoring the computerized Operations Manual.

Memberships

Pacific Northwest Pollution Control Association
Water Environment Federation

Assignment

Operations

Education

A.S., Water Quality Technology,
Clackamas Community College, 1994

B.A., Liberal Arts, Portland State
University, 1980

A.S., Computer Programming, Portland
Community College, 1979

Registration

Class I Wastewater Treatment Plant
Operator, Oregon

Class I Water Treatment Plant
Operator No. 2740, Oregon

Experience

8 years

Joined Firm

1994

Relevant Expertise

- Operations manual development
- Dye injection flow monitoring
- Performance optimization
- Performance certification

Experience Summary

Jim Reeves is a wastewater operations specialist with 8 years of experience in data analysis, programming, and technical writing. In the production of wastewater treatment plant (WWTP) operation manuals Mr. Reeves integrates graphic images and textual information, in both traditional bound hardcopy format and electronic media. He provides other operations services including data analysis of various water and wastewater treatment processes for performance evaluation and optimization projects. Additionally, Mr. Reeves operates a dye injection system to accurately measure flow rates for flow meter calibration. In the process of test performance, he operates portable, computerized field equipment; conducts tests; takes samples; and analyzes the results with a portable laboratory.

Operation and Maintenance Manual Development, Various Clients

Operations Specialist. Wrote and coordinated the production, photography, and desktop publishing of operations manuals for the following clients:

- Medford, Oregon (addition of anaerobic digester)
- Clackamas County, Oregon (Kellogg Creek WWTP)
- County of Maui, Hawaii (Lahaina and Kihei Wastewater Reclamation Facilities)
- County of Maui, Hawaii (Wailuku Pump Station)
- Albany, Oregon (Maple Street Pump Station)

Operation and Maintenance Manual Development, Various Clients

Operations Specialist. Acted as primary or secondary for the design, writing, graphic development and publication of web-based documents for the following clients:

- Gresham, Oregon (City of Gresham WWTP)
 - Clackamas County, Oregon (Tri-City WWTP)
 - Woodburn, Oregon (City of Woodburn WWTP)
 - Clean Water Services, Washington County (Forest Grove Facility)
 - Portland, Oregon (Columbia Boulevard Wet Weather Treatment Facility, Tryon Creek WWTP Activated Sludge Process)
 - Boise, Idaho (Lander Street WWTP, Secondary Clarifiers, Headworks)
 - Santa Cruz, California (Santa Cruz WWTP)
 - Clark County, Nevada (Clark County Sanitation District, UV System)
 - City and County of Honolulu, Hawaii (Policy for Grease Interceptor Program Compliance)
 - Oak Lodge Sanitary District, Portland Oregon (Oak Lodge WWTP)
-

- Western Lake Superior Sanitary District, Duluth, Minnesota (Duluth WWTP)
- Lafayette, Indiana (City of Lafayette WWTP)
- Woodburn, Oregon (City of Woodburn WWTP)

Operation and Maintenance Manual Development, Various Clients

Operations Specialist. Developed training material and/or conducted training classes for the following clients:

- Clean Water Services, Washington County; Rock Creek Facility
- Bureau of Environmental Services, City of Portland, Oregon; Columbia Boulevard WWTP
- Oak Lodge Sanitary District, Portland, Oregon; Oak Lodge WWTP
- Atlanta, Georgia, Utoy Creek WWTP

Operation and Maintenance Manual Development Guide, Annacis Island WWTP, Greater Vancouver Regional District, British Columbia

Operations Specialist. Wrote the development guide.

Utilized Dye Injection To Accurately Measure Water/ Wastewater Flow Speed In Pipelines, Various Clients

Operations Specialist. Operated portable, computerized equipment that controls the amount and rate of dye injection. System is used to calibrate flow meters in sewer or water lines, as well as within treatment plants.

Clients include:

- Bureau of Environmental Services, City of Portland, Oregon; Sewer Level Remote Telemetry project
- Bureau of Environmental Services, City of Portland, Oregon; Columbia Boulevard WWTP
- King County Department of Metropolitan Services, Seattle, Washington; Redmond WWTP
- Greater Vancouver Regional District, Vancouver British Columbia; Annacis Island WWTP outfall mixing zone study

Performance certification, various clients

Operations Specialist. Provided research and assistance with technical analysis and writing for performance certification for the following clients:

- City of Bandon, Oregon
- City of Gresham, Oregon
- City of Woodburn, Oregon
- City of Florence, Oregon

Performance Optimization Evaluation, Clean Water Services of Washington County, Oregon

Operations Specialist. Analyzed data in troubleshooting process. Prepared graphic illustration of analysis. Developed collaborative web site for the sharing and distributing of project information.

Assignment

Technical Advisor

QA/QC

Education

B.S., Civil Engineering, Iowa State University, 1980.

B.S.E., Biology, Northeast Missouri State University, 1975.

B.S., Zoology, Northeast Missouri State University, 1974

Registration

Professional Engineer, No. 13923, Iowa

Professional Engineer, No. 19141, Minnesota

Class II Wastewater Operator, Iowa

Experience

20 years

Joined Firm

1996

Experience Summary

Mark Seip has over twenty years experience in servicing municipal clients and is currently a Supervising Engineer in Brown and Caldwell's St. Paul, Minnesota office. Mr. Seip has extensive experience in planning, design, construction, and the start-up of water and wastewater treatment facilities.

Main Lift Station, Delano, Minnesota

Project Engineer. Responsibilities included planning design, construction, and start-up of a new lift station with 3 MGD firm capacity. Project included a caisson design for the station, flow metering, sampling, screening, and pumping to the process unit (oxidation ditches). The caisson design allowed the structure to be cast-in-place and sunk in the flood plain without dewatering or disturbing the adjacent wastewater facilities. Screening was provided by an innovative S.S. cylindrical fine screen system that washes, compacts, and bags the screenings removed. Pumping is provided by submersible pumps (5) with PLC based controls.

Aerated Pond Facility, Cokato, Minnesota

Project Engineer. Responsible for planning, design, construction, and startup of 15 acre aerated pond (3 cells) facility. Tankage at the existing facility was converted to duplicate wet wells with average and stormflow pumps. Screening was provided upstream of the pumps by an innovative S.S. cylindrical fine screen system that washes, compacts, and bags the screenings removed. The existing effluent forcemain was intercepted 1.5 miles out of town at a high point that allowed gravity discharge from the new facilities site. After aerated pond treatment effluent passes through rotary drum microscreens with 13 micron woven media for algae removal followed by disinfection and discharge. The facility received a "Honors Award" for engineering excellence in design from the Minnesota Consulting Engineer Council (CEC) in 1995.

Facilities Planning for Wastewater Treatment Facilities Upgrade, Ely Public Utilities Commission, Ely, Minnesota

Project Engineer. Responsible for planning, design, and construction involving the upgrade of the existing plant to provide peak flow capacity of 7.2 mgd and peak process flow of 3.0 mgd with overflow retention facilities. Also included is a liquid sludge treatment process to produce Class A Biosolids. Other process units include new biological phosphorus removal tankage, new preliminary treatment including screening, grit removal, and flow splitting, effluent filters, ultraviolet disinfection, and a new interceptor with pumping.

Raw Sewage Pump Station Upgrade, Des Moines Wastewater Reclamation Authority, Des Moines, Iowa

Project Engineer. Responsible for planning, design, and construction involving the refit of the main pump station to provide 275 MGD firm capacity. Project includes mechanical bar screen improvements, variable speed drive additions, and utilization of active discharge siphons. The discharge of each of the six pumps will utilize an active siphon which reduces the pump head and adds an additional 5 MGD pumping capacity to each.

4 MGD Advanced Wastewater Treatment Facility, Ashland, Wisconsin

Project Engineer. Responsible for planning, design, construction, and startup of new lift station (20 MGD), conveyance facilities, flow retention (8 MG structure), and treatment facilities at a new site. Permit limits to be met included:

- BOD5 - 15 mg/l
- TSS - 30 mg/l
- Phosphorus - 1 mg/l
- Ammonia - 1 mg/l
- Various Metals

The treatment facility included static screens, aerated grit removal, oxidation ditches, final settling tanks with chemicals fed to enhance treatment, ultraviolet disinfection, and discharge to Lake Superior through a HDPE outfall line 1200 feet into the bay. Sludge treatment was provided along with 60 days liquid storage and 180 days of cake storage to provide operational flexibility.

Memberships

Minnesota Consulting Engineers Council
Water Environmental Federation
American Water Works Association
Minnesota Wastewater Operators Association
Wisconsin Wastewater Operators Association

Christine A. Selker, P.E.

Assignment

Design

Education

M.S., Civil Engineering, Stanford University, 1992

B.S., Biology, Pennsylvania State University, 1981

Registration

Professional Civil Engineer No. 17249, Oregon, 1994

Experience

9 years

Joined Firm

1992

Experience Summary

Christine Selker is an engineer with over 9 years of professional experience primarily in the predesign, design, and construction inspection of wastewater treatment facilities, and the delineation of wetlands.

Headworks and Secondary Clarifiers, Woodburn WWTP, Woodburn, Oregon

Engineer. Designed headworks and secondary clarifiers for 24 mgd plant. Evaluated screening and grit equipment alternatives, and specified equipment. Gave presentations to client. Prepared control strategies. Prepared flow-mass balance for entire plant.

Grit System Modifications, Tri-City Water Pollution Control Plant, Clackamas County, Oregon

Associate Engineer. Assisted with project management, prepared drawings and specifications for reinforced concrete baffles and diffuser replacement in the grit chamber. Office engineering and construction inspection.

Tri-City Berm and Stormwater, Clackamas County, Oregon

Project Engineer. Participated in predesign of flood control berm and modifications to the existing plant stormwater collection system for a 50 mgd plant. The purpose of the stormwater modifications is to route flow through plant headworks instead of off-site discharge.

Wastewater Treatment Plant Upgrades in Hillsboro and Forest Grove, Unified Sewage Agency, Washington County, Oregon

Associate Engineer. Inspected headworks, disinfection systems, forcemains, and gravity sewer.

Aeration Basin Upgrade, Gresham WWTP, Gresham, Oregon

Engineer. Designed aeration basin modifications. Performed hydraulic calculations to size gates and cutthroat flumes and aeration calculations to size valves.

Kellogg Creek Primary Effluent Blowers, Clackamas County, Oregon

Engineer. Assisted with project management. Designed odor control measures (duct work, covering of openings) in primary effluent channel. Office engineering and construction inspection.

Odor Control System, Kellogg Creek Wastewater Treatment Plant, Clackamas County, Oregon

Associate Engineer. Prepared design of odor control system for primary effluent channel in aeration basin.

**Pumping Station, Kellogg Creek Wastewater Treatment Plant,
Clackamas County, Oregon**

Engineer. Designed modifications to return activated sludge pumping station to allow independent control of sludge removal from clarifiers. Designed modifications to ML splitter box and seal water system.

**Secondary Clarifier Improvements, Forest Grove and Hillsboro
Wastewater Treatment Plants, Unified Sewerage Agency,
Washington County, Oregon**

Associate Engineer. Sized flocculation well. Prepared secondary clarifier specifications and drawings, and scum system drawings. Provided office engineering during construction.

Local Limits, City of Vancouver, Washington

Assistant Engineer. Prepared calculations to determine the concentration of volatile organics inside sewers to set discharge limits for industry.

Memberships

American Society of Civil Engineers

Water Environment Federation

Society of Wetland Scientists

Ronald R. Walz, P.E.

Assignment:

Design

Education

M.S., Environmental Engineering,
Georgia Institute of Technology, 1989

B.S., Engineering Science,
Pennsylvania State University, 1986

Registration

Professional Engineer, Oregon, 1996
Professional Engineer No. 20081,
Georgia, 1992

Experience

13 years

Joined Firm

1988

Experience Summary

Ron Walz is a senior engineer and manages Brown and Caldwell's Eugene office. He has 13 years of experience in wastewater planning and design, with responsibilities ranging from project engineer to project manager. Mr. Walz's primary responsibilities include wastewater treatment plant (WWTP) hydraulics, process review, and detailed design of wastewater treatment systems.

Spring Street WWTP Reliability Improvements, City of Klamath Falls, Oregon

Project Manager. Responsible for managing pre-design and design of this plant expansion, which includes fine screening, conversion of the existing aeration basins to Biological Nutrient Removal, a new 110-foot secondary clarifier, effluent disinfection and dechlorination, temperature control and sludge thickening. A new Control Building using geothermal heating system was constructed.

WWTP Improvements, City of Brookings, Oregon

Project Manager. Responsible for managing pre-design and design of this plant expansion, which includes a headworks, primary clarifiers, trickling filter improvements, aeration tanks, secondary clarifiers, UV disinfection, sludge thickening and storage. Laboratory improvements and a new Operations Building were also constructed.

WWTP Expansion and Improvements, City of Woodburn, Oregon

Project Manager. Responsible for managing pre-design and design of this plant expansion, which includes a new headworks, aeration tanks, secondary clarifiers, effluent filter, ultraviolet (UV) disinfection, effluent aeration, sludge thickening, facultative sludge lagoons, pretreatment laboratory and maintenance building. Modifications to existing facilities include primary clarifiers, sludge digestion, sludge drying beds, and septage receiving.

Design Services and Office Engineering Services During Construction, Forest Grove Facility, Unified Sewerage Agency, Washington County, Oregon

Project Manager. Responsible for aeration basin improvements, including conversion from surface aeration complete mix to fine bubble plug flow; disinfection alternatives study; design of UV disinfection process based on client preference; effluent pump station design; and overall project management, including oversight of secondary clarifier modifications design. An element of the secondary clarifier design was the expansion of existing tanks to increase both depth and diameter. This project involves working within a compact construction site. Upon completion, plant

capacity will increase from approximately 8 million gallons per day (mgd) to 20 mgd.

Hydraulics Analysis for the Columbia Boulevard WWTP Facility Plan, Bureau of Environmental Services, City of Portland, Oregon

Project Engineer. Author of Treatment Criteria technical memorandum, part of the Facility Plan.

Design Services and Office Engineering Services During Construction, Westerly Wastewater Treatment Center, Cleveland, Ohio

Project Engineer/Assistant Project Manager. Designed a new 70 mgd secondary biological treatment facility and an upgrade of existing facilities on a confined complex site. Responsible for development of plant hydraulics, mechanical design of trickling filter/solids contact process and secondary clarifiers, and analysis of sludge metals. Served as assistant project manager with seven subconsultants on the expansion project. Coordinated five subconsultants to design new rail-car chemical delivery facilities, chemical disinfection facilities, and incinerator rehabilitation. Directed office engineering support during construction.

Design Services, Camp Creek Water Pollution Control Plant Expansion and Upgrade, City of Camp Creek, Georgia

Project Engineer and Assistant Project Manager. Responsible for subconsultant coordination and review, plant hydraulics, process overview, and mechanical design of the activated sludge system. Designed advanced treatment systems such as biological phosphorus removal and UV disinfection for the expansion. Promoted to assistant project manager at the 40 percent completion milestone. Involved in most plant facilities in a decision-making role. Negotiated a biological phosphorus removal licensing agreement with unprecedented county-wide incorporation. The expansion will increase plant capacity from 13 mgd to 24 mgd.

Design of Secondary Treatment Pilot Plant Project, R.M. Clayton Water Reclamation Center, City of Atlanta, Georgia

Project Manager and Project Engineer. Responsible for the design and procurement of the aeration basins, mechanical clarifier, and associated pumps, piping, and valves. Plant capacity is 16 gallons per minute. This client developed an innovative process called volatile fatty acid induced phosphorous removal. We helped them by designing and purchasing a pilot plant, which confirmed their bench scale studies.

Review, Analysis, and Design of the Gwinnett County Crooked Creek Wastewater Treatment Plant, Gwinnett County, Georgia

Project Engineer. Evaluated process design and developed plant hydraulics. Designed primary effluent and return activated sludge flow splitting and mixing structure, oxidation ditch influent/effluent system, and post-aeration facility. The expansion increased plant capacity from 8 mgd to 16 mgd.

Daria Wightman, P.E.

Assignment

Project Manager

Education

M.S., Civil and Environmental
Engineering, Utah State University

B.S., Civil and Environmental
Engineering, Utah State University

Liberal Arts, American College, Paris,
France

Undergraduate Studies, Whitman
College, Washington

Registration

Professional Engineer, 1983 (Oregon
No. 12215), 1984 (Washington No.
22014), 1994 (Hawaii No. 8358)

Experience

20 years

Joined Firm

2000

Experience Summary

Ms. Wightman has 20 years of experience in wastewater treatment, including planning, permitting, predesign, design, bidding and services during construction. She has also developed pretreatment programs for many municipalities in the Portland metropolitan area.

Laie Water Reclamation Facility Project Studies, Facilities Planning and Design, Honolulu, Hawaii.

Project Manager. Work included expansion and upgrade of the existing wastewater treatment facilities, effluent reuse, effluent disposal by leach field, and pump station odor control upgrades. The upgrades included headworks, activated sludge basins with selector technology, filtration, and ultraviolet light disinfection. Effluent reuse is on private lands growing pasture grass, bananas, papayas, and lawn. The project included regulatory input on new reuse regulations and a tight schedule to meet court-appointed deadlines.

Lake Stevens Wastewater Treatment Plant Expansion, Lake Stevens, Oregon.

Lead Engineer. Predesign responsibilities included development of plant design loadings and allocation of costs to users, activated sludge process analysis, and determination of aeration requirements. Her design responsibilities included design of the aeration basins, aerobic digesters, and an in-plant pump station. During construction of the treatment plant expansion, she was the resident engineer at the construction site.

Lahaina, Maui, Hawaii WWTP. *Engineer.* Designed grit removal system for the treatment plant upgrade..

Columbia Boulevard Secondary Expansion Preliminary Design Project, City of Portland, Oregon.

Project Manager. Provided preliminary design of the secondary treatment expansion at the Columbia Boulevard Wastewater Treatment Plant (CBWTP) to enhance the secondary clarifier performance. The project provides additional interim secondary clarifier capacity and expansion capacity sufficient for ultimate growth. The preliminary design work developed design criteria, preliminary drawings and determined the schedule and budget requirements for the design and phased implementation.

Columbia Boulevard Solids Lagoon Reconstruction Design Project, City of Portland, Oregon.

Design Manager. The project includes reconfiguring the cells in the CBWTP solids lagoon and introducing an HDPE lining system to bring the lagoon up to contemporary design standards and assure surface and groundwater

protection. Reconfiguration includes subdividing the lagoon into cells by adding additional dikes for more flexibility in operation and provide environmental enhancements for a citywide (40-mile) loop trail immediately south of the lagoon. The environmental enhancements require fill to bring the elevation up to the desired grade. Solids resting on the base of the lagoon (largely inert silts and sands as well as some well-aged, highly stabilized organic matter) will be used under the environmental enhancements rather than imported fill. Permitting activities to site the solids monofill are also included.

Columbia Boulevard Wastewater Treatment Plant Secondary Treatment Upgrades, City of Portland, Oregon.

Project Manager. Full-scale field tests were conducted on the aeration basins and secondary clarifiers to determine their limiting capacity and test recommended improvements. Two of six aeration basins were converted from complete-mix to a plug-flow/anoxic selector mode of operation. The proposed modifications are being implemented in all the basins. Secondary facilities capacity was increased from 80 mgd to 160 mgd with these modifications. The project won an Engineering Excellence Honor Award from the Consulting Engineers Council of Oregon.

Columbia Boulevard Wet Weather Treatment Facility, City of Portland, Oregon.

Task Leader. Responsible for design upgrades to the existing primary clarifiers to convert them to automated wet weather operation. Automated draining and flushing are being provided. She also serving as the quality assurance task leader on the project and design lead for the Dry Weather Primary Effluent Pipeline.

Kellogg Creek Water Pollution Control Plant Solids Handling Improvements, Clackamas County, Oregon.

Project Manager. Responsible for improvements to the odor control facility, including updating antiquated DAFT equipment, increasing efficiency, increasing flexibility, enhancing access for maintenance, and providing cost-effective facilities.

Tryon Creek Wastewater Treatment Plant Outfall Extension, City of Portland, Oregon.

Assistant Project Manager. Responsible for the TCWTP outfall extension that eliminated the requirement for dechlorination. She was project manager of the outfall mixing zone study. She also assisted in the study and negotiations with DEQ on the permitted wet weather average flow value used to determine the allowable pounds of BOD and TSS in the effluent. Using the flows evaluated in the Facility Plan, a larger allocation was obtained than by the DEQ standard calculation.

Liquids Treatment, Columbia Boulevard Wastewater Treatment Plant (CBWTP) Facilities Plan, City of Portland, Oregon.

Task Leader. Responsible for liquids treatment, which included sizing of the liquid treatment processes. The planning effort provided direct input to

the Columbia Boulevard Wet Weather Treatment Facility Project (CBWWTF).

Disinfection Studies for Kellogg Creek and Tri-Cities Water Pollution Control Plants, Clackamas County, Oregon.

Project Manager. Responsibilities included disinfection studies for Kellogg Creek and Tri-Cities Water Pollution Control Plants. The Kellogg Creek Water Pollution Control Plant disinfection upgrade was designed and included ultraviolet disinfection and modifications to the clarifiers to increase the clarifier side water depth and relieve hydraulic restrictions. She was also project manager of the Clackamas County Biosolids Study Project which planned biosolids handling and disposal for both Kellogg and Tri-City plants.

Tryon Creek Water Treatment Plant Outfall Extension, City of Portland, Oregon.

Assistant Project Manager. Work included the TCWTP outfall extension that eliminated the requirement for dechlorination. She was project manager of the outfall mixing zone study. She also assisted in the study and negotiations with DEQ on the permitted wet weather average flow value used to determine the allowable pounds of BOD and TSS in the effluent. Using the flows evaluated in the Facility Plan, a larger allocation was obtained than by the DEQ standard calculation.

Tri-City WWTP Certification, Clackamas County Department of Utilities, Clackamas County, Oregon.

Project Engineer. Responsibilities included certification of the Tri-City Wastewater Treatment Plant, the first plant in the United States to incorporate selector technology. The certification process involved defining test procedures to certify processes and equipment, conducting the tests, finalizing the report, and resolving warranty issues conflicting with certification.

Willow Lake Wastewater Treatment Plant Engineer of Record, Salem, Oregon.

Project Manager. Responsible for oversight on on-call services Contract. Projects included completing their Risk Management Plan for chlorine to meet Federal regulations.

Treatment Plant Capacity Evaluation, Troutdale, Oregon.

Senior Consultant. Responsible for the Troutdale, Oregon, treatment plant capacity evaluation and local limits study. The treatment plant capacity was evaluated for BOD and TSS. Local limits were established for these parameters.

Facilities Sewer System Master Plan, Camas, Washington.

Senior Consultant. Responsible for the Camas Facilities Sewer System Master Plan. She also conducted a local limits analysis for fluoride for the City of Camas.

Permitting

Woodburn Wastewater Treatment Plant Facilities Plan Project, Woodburn, Oregon.

Project Manager. Responsible for permitting assistance for the plant upgrade National Pollutant Discharge Elimination System (NPDES) permit during Facilities Planning. Draft permit with TMDLs was negotiated.

Poplar Tree Design and Permitting Project, Woodburn, Oregon.

Project Administrator. Responsible for permitting assistance for the plant upgrade National Pollutant Discharge Elimination System (NPDES) permit, which includes the reuse portion of the project.

Pretreatment

Pretreatment Program Development and Implementation, Clackamas County Department of Utilities, Clackamas County, Oregon.

Project Engineer. Responsible for development of the industrial pretreatment program for Clackamas County, Oregon. The program included identifying industries with wastewater discharges that could be subject to EPA pretreatment guidelines; gathering technical information to support an industrial program; studying the existing sewage treatment plant's tolerance to industrial inputs; and defining the facilities, ordinances, monitoring equipment, and finances necessary to minimize industrial impacts on the sewage treatment processes.

Bureau of Environmental Services, Source Control, Pretreatment Program Development, City of Portland, Oregon.

Project Manager. Responsible for the BES municipal pretreatment program review and development. Under her management and with the BES staff on the team, the BES pretreatment program was documented and new enforcement procedures were developed. The program is still evolving. BES staff easily implements changes to the program through documentation.

Memberships

Water Pollution Control Federation

Pacific Northwest Pollution Control Association, 1992 and 2001 Technical Program Chair

Association of Clean Water Agencies, member of the Water Quality Committee since 1987. Water Quality Committee Chair 1999-2001

Society of Women Engineers, Oregon Section Vice President 1985; President 1986; Section Representative 1987; Northwest Region Director on the Board of Directors, 1987-1990; 1996 National Convention Chair

American Public Works Association 1989

American Society for Engineering Management 1989

Tau Beta Pi

Phi Kappa Phi

Publications/Presentations

With Brett Borup and Milind Wable. "Selector Technology Upgrades in Laie, Hawaii." Presented at the Pacific Northwest Water Environment Control Association's annual meeting (Seattle, Washington, 1997).

With Brett Borup and Peter Rude. "Water Reuse in Laie, Hawaii." Presented at the Utah Water Environment Association's annual meeting (St. George, Utah, 1997).

With Jim Folkerts. "Plug Flow Selector Technology for Sludge Settability at Columbia Boulevard Wastewater Treatment Plant." Presented at the Pacific Northwest Pollution Control Association's annual meeting (Eugene, Oregon, 1995) and short school (1996).

With G. T. Daigger, R. Frankenfield, C. Spani, J. M. Read, and S. E. Simonson. Upgrading the Northwest With Selector Technology. Presented at the Water Environmental Federation Annual Conference. New Orleans, Louisiana. 1992.

With J. Buttz and G. T. Daigger. "Field Performance Testing of Sedimentation Basins Using the Crosby Technique and Stress Testing." Accepted for presentation at the Water Pollution Control Federation Annual Conference. San Francisco, California. 1989.

With D. B. George, J. H. Zirschky, and D. S. Filip. "High Rate Overland Flow." Presented at the Society of Women Engineers National Convention. Dearborn, Michigan. 1982. Also presented at the Water Pollution Control Federation Annual Conference. Detroit, Michigan. 1981. Published in Water Research, Vol. 17, No. 11. pp. 1679-1690. 1983.

"Effects of Harvesting on Overland Flow Effluent Quality." Proceedings of the Utah Water Pollution Control Association Annual Meeting. Park City, Utah. 1981.

With D. B. George, J. H. Zirschky, and D. S. Filip. "An Evaluation of the Performance of a Modified Overland Flow Wastewater Treatment System: Sloped Rock-Grass Filtration." September 1982. Water Quality Series UWRL/Q-82/03. Utah Water Research Laboratory, Logan, Utah.

Honors

Fellow Grade in the Society of Women Engineers, 1999

Distinguished New Engineer Award. 1991. Society of Women Engineers

Woman of Distinction in Engineering. 1993. Columbia Girl Scouts Council

Community Service Award 1993 Columbia Girl Scouts Council

Community Service Award 1996 CH2M HILL

EXHIBIT B

Additional Scope

C. Detailed Construction Work Plan

Task 5. Additional Services during Construction

Objective:

Provide services "as negotiated" to augment the services provided in the Proposal. The Optional Services that were identified in the Proposal have been included herein as Additional Services and budgeted based on an allowance as shown. Brown and Caldwell is under no obligation to provide resident services or services in excess of the allowances shown.

Activities:

- 5.1 *(Additional)* Attend the preconstruction conference at the Newberg WWTP to address questions and issues. (Assumes Project Manager and Construction Manager Attendance).
- 5.3 *(Additional)* Provide increased number of periodic construction observation and testing services at appropriate frequencies to confirm the construction Contractor's adherence to the construction contract documents. Prepare daily reports for increased visits. (Allowance of an additional 20 hours of site visits).
- 5.6 *(Additional)* Provide technical assistance to the City in preparing change order requests and reviewing monthly pay requests from the Construction Contractor. (Allowance of 8 hours of assistance)
- 5.7 *(Additional)* Submit a summary report of construction work completed since the last submitted construction invoice and the construction work anticipated for the next period, with each monthly invoice from the Construction Contractor. Highlight any concerns or construction issues. Provide a written summary of each meeting with the City, and detailed project construction schedule updates from the Contractor on a

monthly basis. (Allowance of 36 hours and 6 reports)

- 5.8 *(Additional)* Complete a final O&M manual insert for the Headworks Upgrades to augment the headworks equipment pages in the City's existing O&M Manual.
- 5.9 *(Additional)* Provide final as-built drawings in electronic format and also hard copy on 22-inch by 34-inch 4 mil Mylar.
- 5.10 *(Additional)* Assist with startup of equipment. (Allowance 16 hours)
- 5.11 *(Additional)* Associated administration and management for additional tasks

Work Products:

For Additional Work:

Provide documentation of communication between Brown and Caldwell team and the Construction Contractor. Provide daily reports for the additional 20 hours of site visits. Provide six (6) sets of final as-built drawings. Provide six (6) copies of final O&M manual insert to the City within sixty (60) days of completion of the construction project. The manual will also be provided in MS Word® electronic file format.

Assumptions

- Additional scope and budget would be required for significant changes in project direction from the studies results.
- Programming is not included.
- Field observation is limited due to budget constraints. Additional services can be provided upon request and negotiations.
- As-built drawings drafted based on the field information provided by the Contractor and City.

G. Use of City's Personnel

Our scope and level of effort assumes that City personnel will assist in the overall project. Time requirements during design are estimated at several days for each staff person for each design review.

Administrative time will range throughout the project from 4 hours to 1 day per week. Construction activities may require 0.25 full time equivalent for City staff to do field observation and other construction-related activities.

City's Responsibility

Project Tasks to be Performed by the City

The City will:

- a. Provide a project engineer/manager responsible for the overall project management and will provide coordination between the Consultant and the City;
- b. Review and negotiate all contract documents;
- c. Prepare Council submittal package and conduct Council workshops;
- d. Make available a collection of data from City records such as property descriptions, as-built data, maps, etc., and City policies, regulations and guidelines to be used in developing the design;
- e. Make arrangements for City staff to provide timely response to any questions, and to be available for any meetings requested by the Consultant. All meetings will take place at the Newberg WWTP or as noted otherwise;
- f. Provide within two (2) weeks of submittal to the City, timely response to and approval of: preliminary design (at 30 percent level), and final design at 90 percent levels;
- g. Submit and pay all required construction permits to outside agencies;
- h. Review, suggest modifications, and approve the O&M manual outline;
- i. Review and process monthly payment requests from the Consultant;
- j. Provide the base or template provisions for the construction contract to which the Consultant will add terms and conditions unique to the project; and
- k. Perform other tasks as negotiated.

Other assistance proposed specifically by task include:

Task 5

- Coordinate operations and construction
- Provide updates to the O&M Manual that may be requested by DEQ that are outside the scope of the Headworks Upgrade such Design Data Table for the plant
- Provide field observation in addition to the Consultant observation as needed.
- Attend weekly Contractor Coordination Meetings
- Conduct compliance testing
- Review submittals not included in Consultant submittal review list that may include but not be limited to:
 - Asphalt concrete pavement material
 - Product data
 - Coating materials lists, application methods, samples, and Material Safety Data Sheets
 - Piping, accessory, and valve product data and shop drawings

City of Newberg, Headworks Retrofit Design Project
Estimated Level of Effort and Cost

LABOR CATEGORY	RATE \$/HR	EFFORT PER OPTIONAL SUBTASK																TOTAL	
		5.1.		5.3.		5.6.		5.7.		5.8.		5.9.		5.10		5.11			
		HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$
PROFESSIONAL																			
EXECUTIVE ENGINEER	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROJECT MANAGER	150	2	300	0	0	0	0	0	0	1	150	2	300	0	0	10	1,500	15	2,250
MANAGING ENGINEER	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUPERVISING ENGINEER	156	0	0	0	0	0	0	0	0	4	624	0	0	16	2,496	0	0	20	3,120
PRINCIPAL ENGINEER	150	3	450	20	3,000	8	1,200	30	4,500	1	150	2	300	0	0	0	0	64	9,600
SENIOR ENGINEER	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENGINEER	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASSOCIATE	100	0	0	0	0	0	0	0	0	20	2,000	0	0	0	0	0	0	20	2,000
ASSISTANT	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		5	750	20	3,000	8	1,200	30	4,500	26	2,924	4	600	16	2,496	10	1,500	119	16,970
TECHNICAL																			
PRINCIPAL DESIGNER	132	0	0	0	0	0	0	0	0	0	0	2	264	0	0	0	0	2	264
SENIOR DRAFTER	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SENIOR DRAFTER	84	0	0	0	0	0	0	0	0	0	0	32	2,688	0	0	0	0	32	2,688
SUBTOTAL		0	0	0	0	0	0	0	0	0	0	34	2,952	0	0	0	0	34	2,952
ADMINISTRATIVE																			
SUPERVISOR	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WORD PROCESSOR IV	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		5	750	20	3,000	8	1,200	30	4,500	26	2,924	38	3,552	16	2,496	10	1,500	153	19,922

TASK DESCRIPTIONS:

- 5.1. Attend Preconstruction Conference
- 5.3. Increased Periodic Site Visits
- 5.6. Assist with Change Order Requests
- 5.7. Submit Monthly Report
- 5.8. Complete Final O&M Manual
- 5.9. Provide Final As-builts
- 5.10. Assist With Start-up of Equipment
- 5.11. Associated Administration and Management

Construction Period Services Costs based on the preliminary drawing list and allowances. Actual hours may vary.

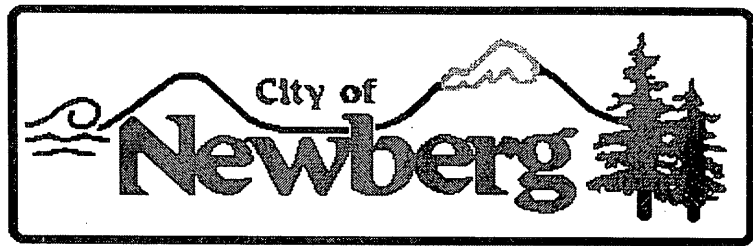
SPECIAL REQUESTS, REPORTS, AND SCOPE CHANGES:

Charges for special requests and broadening the scope under this contract will be based on this rate table.

Rates may be adjusted at the beginning of each calendar year to reflect salary and direct cost changes.

EXHIBIT C

COMMUNITY DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION



OREGON

REQUEST FOR PROPOSALS

for

**Headworks Retrofit Design
at the Wastewater Treatment Plant**

DECEMBER 23, 2002

Address proposals to:

City of Newberg, City Hall

Attention: Paul Chiu, P.E., Senior Engineer/Project Manager ... 503-554-1751

Location: 414 E. First Street, Newberg, OR 97132

Mailing: P.O. Box 970, Newberg, OR 97132

Proposals due: Thursday, February 6, 2003 at 2:00 p.m. local time

Envelopes must be sealed, plainly marked: "HEADWORKS RETROFIT DESIGN", sent to the attention of the Project Manager, and shall include the name and address of the proposer. Respondents must submit six (6) sets of the proposal. The City of Newberg reserves the right to reject any or all proposals.

Proposals will be received only from those firms specifically invited by the City of Newberg.

CIP #706330

TABLE OF CONTENTS

Page

SECTION 1

GENERAL INFORMATION

1.1	Proposal Request	4
1.2	Proposer's Proposal	4
1.3	Schedule	4
1.4	Issuing Office	5
1.5	Response Date	5
1.6	Proposal Withdrawal	5
1.7	Interviews	5
1.8	Rejection or Acceptance of Proposals	6
1.9	Selection of Consultant	6
1.10	Execution of Contract	6
1.11	Public Records	6
1.12	Tax ID Number	7
1.13	Recycled Products Statement	7
1.14	Local/State/Federal Requirements	7
1.15	Payment for Services	7

SECTION 2

SCOPE OF WORK

2.1	General	9
2.1.1	Background	9
2.2	Scope of Professional Services	10
2.2.1	Scope of Work	10
2.2.1.1	Screens	10
2.2.1.2	Screening Bypass	10
2.2.1.3	Screenings Washer and Compactor	11
2.2.1.4	Grit Cyclone/Classifier and Grit Piping	11
2.2.2	Tasks	11
2.2.2.1	Project Management	12
2.2.2.2	Preliminary Design	13
2.2.2.3	Final Design	14
2.2.2.4	Bid Phase	15
2.2.2.5	Construction Phase	15
2.3	City's Responsibility	16
2.3.1	Project Tasks to be Performed by the City	16
2.4	Consultant's Work Products	17
2.4.1	Compatibility	17
2.4.2	Project Presentation	17
2.4.3	Insurance Coverage	18

SECTION 3**PROPOSAL REQUIREMENTS AND EVALUATION**

3.1	Proposal Submittal	19
3.2	Incurred Costs	19
3.3	Content of Proposals and Evaluation Criteria	20
3.3.1	Introductory Letter	21
3.3.2	Table of Contents	21
3.3.3	Key Personnel Qualifications	21
3.3.4	Project Scope and Understanding	21
3.3.5	Project Schedule	22
3.3.6	Consultant's Fee Schedule	22
3.3.7	Additional Supporting Information	23

APPENDIX A: Sample Professional Services Agreement

APPENDIX B: Project Site and Aerial Map

APPENDIX C: Technical Memorandum, "Newberg Dump Station Headworks Studies",
Final Report and Recommended Plan from Brown and Caldwell, dated
June 28, 2002

APPENDIX D: Site Plan for Proposed Cure Building

**Appendix A thru D
not attached
in Exhibit C**

SECTION 1

GENERAL INFORMATION

1.1 Proposal Request

Six (6) copies of the proposals are to be submitted by 2:00 p.m. local time on Thursday, February 6, 2003, to the City Hall, City of Newberg, Attn: Paul Chiu, P.E., Senior Engineer, 414 East First Street, Newberg, Oregon, 97132. For more information, please contact Paul Chiu, P.E. at (503) 554-1751.

Consultants Chosen for RFP Distribution: The City of Newberg completed an evaluation of Consultant Statements of Qualifications (SOQ) for the years 2001 - 2004 on October 15, 2001. The prequalified Consultants are being utilized for all Capital Improvement Projects (CIP) during this timeframe. Proposals will be accepted only from those firms specifically invited to propose by the City of Newberg.

1.2 Proposer's Proposal

Proposers responding to this request must follow the directions stated within this "Request For Proposals" (RFP). Adherence to these directions will ensure a fair and objective analysis of your proposal. Proposals should provide a clear, concise description of your firm's capabilities to satisfy the requirements of the RFP.

All responses must be made in the format outlined in Section 3. Failure to comply with any part of this request may result in rejection of your proposal.

Proposals should be prepared simply and economically, providing a straightforward, concise description of the key personnel's capabilities to satisfy the requirements of the City. Special bindings, colored displays, promotional materials, etc., are not necessary. Emphasis should be on completeness, brevity, and clarity of content.

1.3 Schedule

Proposal Due	February 6, 2003 -Thursday 2 p.m.
Staff Recommendation	February 20, 2003 -Thursday
Staff Submitting <i>Request for City Council Approval</i>	February 28, 2003 -Friday
Staff Issuing <i>Notice Of Intent</i>	March 3, 2003 -Monday
City Council Decision on Consultant Work	March 17, 2003 -Monday
Staff Issuing <i>Notice Of Award</i>	March 18, 2003 -Tuesday
Predesign Kick-off Meeting / <i>Notice To Proceed</i>	March 25, 2003 -Tuesday
20% Plan Submittal	April 16, 2003 -Wednesday
60% Plan Submittal	May 14, 2003 -Wednesday
90% Plan Submittal	June 11, 2003 -Wednesday
Completion of Camera-ready Advertisement Package	June 25, 2003 -Wednesday

Beginning of Fiscal Year
Advertise in *Daily Journal of Commerce*
Open Bids for Construction
City Council Decision on Construction Work
Preconstruction Conference
Construction Period

July 1, 2003 -Tuesday
July 7 & 9, 2003 -Mon/Wednesday
July 30, 2003 -Wednesday
September 2, 2003 -Tuesday
September 10, 2003 -Wednesday
September 22, 2003 -Monday
thru March 31, 2004 -Wednesday

Note: The dates other than the proposal due date are approximate and may be subject to change. Staff will work out a final draft of the Contract with the selected Consultant prior to request for Council approval.

1.4 Issuing Office

All correspondence pertaining to this RFP should be directed to Paul Chiu, P.E., Senior Engineer/Project Manager, City of Newberg, mailing address at P.O. Box 970, Newberg, Oregon 97132. Direct line: 503-554-1751 FAX: 503-537-1277.

1.5 Response Date

To be considered, proposals must arrive at the City on or before the date and time specified in this RFP. Proposers submitting proposals should allow adequate mailing time or messenger delivery time to ensure timely receipt of their proposals.

No proposal or correction received after the closing date and time will be considered.

1.6 Proposal Withdrawal

Any proposal may be withdrawn at any time before the "Proposal Due" date and time specified in Section 1.3, Schedule, by providing a written request for the withdrawal of the proposal to the City. A duly authorized representative of the firm shall execute the request. Withdrawal of a proposal will not prejudice the right of the proposer to file a new proposal on this or future projects.

1.7 Interviews

Up to three firms, selected for final evaluation, may be required to make oral presentations of their proposals to the City's Selection Committee. Such presentations provide an opportunity for the firms to clarify the proposals and to ensure mutual understanding. The presentation will be an informal question and answer meeting; no prepared presentations are expected or desired.

Interviews with Consultants are not planned in the selection process at this time.

1.8 Rejection or Acceptance of Proposals

The City expressly reserves the right to:

- a. Disregard any or all irregularities in the proposals.
- b. Reject any or all of the proposals or portions thereof.
- c. Base award with due regard to quality of services, experience, compliance with the RFP, and other factors.

1.9 Selection of Consultant

The City's Selection Committee will recommend to the Newberg Community Development Director that the contract award be made to the successful proposer. The Newberg City Council must approve the selection.

1.10 Execution of Contract

Soon after the City Council approval of the selection, the City and the proposer will finalize the professional services contract. Appendix A contains a copy of the City's standard professional services agreement (PSA) for the proposer's information only. The City's goal is that the successful proposer will sign this contract without modifications. Modification to the PSA may be considered at the City's discretion, but are not usually accepted.

Once selected, the Consultant shall provide certification of all required insurance coverages and shall include City of Newberg, its officials, employees, and agents, as "Additional Insureds" on all except workers compensation insurance policies.

If it becomes apparent that agreement as to contract terms and conditions cannot be reached, the City may give notice to the proposer of the City's intent to award the service contract to the second most highly rated proposer, or to call for new proposals.

Work shall begin expeditiously after issuance of the City's "Notice To Proceed", which will be provided to the Consultant shortly after the execution of the contract.

1.11 Public Records

Any material submitted by a proposer shall become the property of the City unless otherwise specified. During the evaluation of proposals and the selection of the Consultant, the proposals shall be confidential. After the selection process has been completed, the proposals shall be open to public inspection. Proposals should not

contain any information that the Consultant does not wish to become public. If it is necessary to submit confidential information in order to comply with the terms and conditions of this RFP, each page containing confidential information should be clearly marked "NOT FOR PUBLIC DISCLOSURE CONFIDENTIAL TRADE SECRETS". The City accepts no liability for the inadvertent or unavoidable release of any confidential information submitted, and claims arising out of any public record request for such information shall be at the Consultant's expense.

1.12 Tax ID Number

Proposals must state the proposer's Federal/State of Oregon Taxpayer Identification Number.

1.13 Recycled Products Statement

In accordance with ORS 279.555(2), Consultants shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

1.14 Local/State/Federal Requirements

The selected proposer shall comply with all Federal, State and local laws, regulations, executive orders and ordinances applicable to the work under this contract, including, without limitation, the provisions of ORS 279.312, 279.314, 279.316, 279.320, and 279.555. In addition, proposers agree to comply with: (1) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the American with Disabilities Act of 1990 and ORS 659.425; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of Federal and State civil rights and rehabilitation statutes, rules and regulations. Proposer is subject to the Oregon Worker's Compensation Law and shall comply with ORS 656.017, which requires the provision of Worker's Compensation coverage for all employees working under this contract. The City of Newberg's programs, services, employment opportunities and volunteer positions are open to all persons without regard to race, religion, color, national origin, sex, age, marital status, disability or political affiliation.

1.15 Payment For Services

The City will pay the selected Consultant for services performed based on approved rates and scope of work completed. The City will make monthly progress payments within thirty (30) days following receipt of properly itemized invoices.

Payments for extra work not described in the PSA scope of services will only be made when authorized in writing by the City's Project Manager prior to such work being

performed by the Consultant.

If the Consultant sees that the fee is going to exceed the not-to-exceed figure because a task has changed and is outside the scope, the Consultant shall notify the City in writing of the circumstances with an estimated amount that the fee is to be exceeded. The Consultant shall obtain written permission from the City before exceeding the not-to-exceed fee amount. If the Consultant does work that exceeds the maximum fee amount prior to obtaining the written permission, the Consultant waives any right to collect that exceeding amount.

***** END OF SECTION ONE *****

SECTION 2

SCOPE OF WORK

2.1 General

2.1.1 Background

The Newberg Wastewater Treatment Plant at 2301 Wynooski Road has been in operation since September 1987 (see Appendix B). The City of Newberg recognizes the need to repair, replace, improve and/or upgrade various components of the facility to maintain efficiency. Areas in need of attention are: (a) screening at the headworks; (b) grit removal at the headworks; (c) screenings washing/compacting at the headworks; (d) flow optimization at the headworks in winter or wet weather condition; (e) septic/vactor/tanker dump station; (f) secondary clarifier scum disposition; (g) tank drain flow to the Influent Pump Station.

A study was completed in June of this year covering all of the above needs (see Appendix C). The City has prioritized the needs and thus identified two new Capital Improvement (CIP) Projects. The first CIP project, as presented in this RFP, will address the screens, screening bypass, screenings washer/compactor, the grit cyclone/classifier and the grit piping. The second CIP project, which will be presented in future RFP, will address the septage receiving and the treatment/disposal of onsite stormwater.

Following is a list of the reports, drawings and information, which are available for viewing (by appointment only) at the Wastewater Treatment Plant:

- a. Technical Memorandum, Newberg Dump Station Headworks Studies – a Final Report and Recommended Plan by Brown and Caldwell, 2002;
- b. City of Newberg Sewerage Master Plan by Kramer, Chin & Mayo, Inc., 1985;
- c. City of Newberg Sewerage System Improvements, As-built Drawing Set by Kramer, Chin & Mayo, Inc., 1987;
- d. City of Newberg Wastewater Treatment Composter Process Improvements in Odor Control, Construction Drawings by JHI Engineering, Inc., 2001;
- e. WWTP process records;
- f. WWTP equipment records;
- g. WWTP equipment specifications; and
- h. WWTP operation and maintenance manuals.

A fee will be charged for copies of these documents. The Technical Memorandum noted as Item "a." above is, however, attached as Appendix C. Note that some modifications have been made to the plant after its construction and are not reflected in the "as-built" drawing set. For further clarification or to make arrangements for a tour of the facility, please contact Howard Hamilton, Utilities Superintendent at 503-537-1211.

2.2 Scope of Professional Services

2.2.1 Scope of Work

The City of Newberg plans to retain consultant services to perform the design and bid/construction phase services for the retrofit of the headworks at the existing Wastewater Treatment Plant, which is noted as "the first CIP project" in Section 2.1.1, Background. The project is known as the WWTP HEADWORKS IMPROVEMENTS PROJECT.

The Consultant shall follow the recommendations spelled out in the Technical Memorandum, Newberg Dump Station Headworks Studies, as noted in Section 2.1.1. The Consultant shall secure all the necessary construction permits for the improvements to meet the requirements of the Oregon Department of Environmental Quality (ODEQ) and any other applicable agencies.

The Consultant shall provide a wide range of professional engineering services including, but not limited to, project management, engineering design, preparation of construction plans, specifications and cost estimates, bid and construction phase services, and other items that may be necessary to complete the project. See Section 2.2.2, Tasks.

The City desires to see the design fully completed and ready to bid in this fiscal year and the construction to begin in the next fiscal year. The next fiscal year will start on July 1, 2003 and end on June 30, 2004.

This project shall involve the modification of the following systems: the screens, screening bypass, screenings washer/compactor, the grit cyclone/classifier and the grit piping at the Wastewater Treatment Plant.

2.2.1.1 Screens

A new screen shall be installed in the east channel. The FSM perforated plate-type screen is the preferred model and shall be used as the basis for design. Installation of a bypass is required with the FSM screen.

The existing Vulcan rake-arm bar screen with ½ inch gaps in the west channel shall be left in service. The project shall include the design of a future replacement of the Vulcan with the same FSM perforated plate-type screen in the west channel.

2.2.1.2 Screening Bypass

The Influent Pump Station has a design pumping capacity of 27 million gallons per day (mgd) and the WWTP secondary treatment system has a hydraulic capacity of 18 mgd with the excess flow going to the equalization basin. The

hydraulic capacity of the headworks flow channels was analyzed during the Headworks Studies. With a proposed bypass, one of the two flow channels will be able to be shut down for maintenance purposes, while the system remains operational.

A bypass shall be installed at the headworks to allow flow to go around the bar screen channels. The bypass shall consist of a box installed on the south wall of the headworks with a plastic slide gate. The gate shall be adjustable by inserting plates of different heights. The Headworks Studies indicated a 20-inch diameter bypass pipe and a plastic slide gate with three different inserts. Flow shall pass into the grit chamber.

2.2.1.3 Screenings Washer and Compactor

The materials removed by the screening devices are known as screenings. Currently the screenings fall directly from the bar screen into a dumpster and receive no washing to remove organics and no compaction to reduce moisture levels such that it can pass a paint filter test, which may be a requirement in the future for the screenings to be hauled by a garbage service or accepted at a landfill.

The FSM washer/compactor with castors was noted in the Headworks Studies as the unit of choice. The required modifications shall include the removal of the east portion of the chute and the installation of additional support (to allow the installation of a compactor over the west channel) and the installation of a stainless steel cover over the chute and over the grit drop holes. See Section 2.2.1.4, Grit Cyclone/Classifier.

Screenings will drop via the modified chute into a dedicated screenings dumpster below. Both compactors shall discharge into the existing chute. A conveyor will not be required, as the discharge pipe of the east compactor shall be lengthened to discharge into the chute.

2.2.1.4 Grit Cyclone/Classifier and Grit Piping

Currently, there is an aerated grit chamber where grit is settled out and pumped to a single grit washer/selector. The grit then falls into a dumpster.

The decision is to install a redundant Wemco cyclone/classifier, which will require the relocation of the existing cyclone/classifier approximately one (1) foot south. Both the new and the existing cyclones/classifiers shall discharge into new holes in the concrete slab and into a dedicated grit dumpster below. Redundant grit piping to the new cyclone and classifier shall also be included.

2.2.2 Tasks

A list of tasks has been identified as fundamental to the completion of this project. The objectives, activities and work products are specified below. Please present all

information in sequential order according to Section 3.3, Content of Proposals and Evaluation Criteria.

2.2.2.1 Project Management

(a) Objective:

- General
Manage the project efficiently and effectively to produce a quality work product on time and on budget.
- Preliminary and Final Design
Identify all applicable permitting agencies and work with them to secure all necessary construction approvals and permits. Coordinate with the City and applicable permitting agencies.
- Bid and Construction Phases
Coordinate with the City to keep the project on schedule.

(b) Activities:

- General
Prepare a Project Management Plan and obtain City approval. Include detailed task descriptions, methods and format for progress reporting, and procedures for quality assurance and quality control. Establish cost itemization per Section 3.3.5, Consultant's Fee Schedule. Prepare a detailed schedule including milestones for 20%, 60% and 90% design phases of the project and any planned meetings (see Section 3.3.4, Project Schedule).

Maintain frequent and open communication with the City's Project Manager.
- Preliminary and Final Design
Work with the City and all applicable permitting agencies to determine the construction approvals and permits that are needed and the deadlines for each. Respond diligently in the permitting process. Get the construction approvals and permits.
- Bid and Construction Phases
Monitor project progress. Identify and inform the City of any issues or concerns that may affect the progress of the project. Keep thorough and detailed records of project events. Meet with the City on a semi-monthly basis to discuss the status of the project.

(c) Work Products:

- General

Provide six (6) copies of the Project Management Plan, detailed Scope of Work, Project Schedule, and after the project award/signing of the contract, arrange for a pre-design kick-off meeting with the City, provide minutes from the kick-off meeting, reports of project status at milestones, updates and monthly invoices.

- Preliminary and Final Design

Show a list of all the necessary construction approvals and permits. At the end of final design, provide a copy of all the necessary construction approvals and permits.

- Bid and Construction Phases

Submit a summary report of construction work completed since last submitted construction invoice and the construction work anticipated for the next period, with each monthly invoice from the construction contractor. Highlight any concerns or construction issues. Provide a written summary of each meeting with the City, and detailed project construction schedule updates on a monthly basis.

2.2.2.2 Preliminary Design (20% Project Completion)

(a) Objective:

Complete the tasks related to the preliminary design of the project.

(b) Activities:

Conduct structural inspection of existing system. Produce preliminary design to the twenty (20) percent level. If it becomes imperative to specify sole source equipment, the Consultant shall provide justification based on the quality of product, track record in maintenance, product technical support and training, parts inventory, availability, serviceability, competitive pricing and/or other reasons. Develop the following documents with acceptable word processing or spreadsheets, and drawings in preferably AutoCAD version (see Section 2.4.1, Compatibility):

- Piping and instrumentation diagrams.
- Site plan.
- Layouts and basic sections.
- List of drawings.
- Estimate of construction cost.
- Construction schedule, and sequence/phasing plan.

Assemble six (6) sets of preliminary design documents at the 20% level for review by the City. The Consultant shall incorporate the City's and the Consultant's own comments into the next stage of design.

(c) Work Products:

Prepare separate memoranda on applicable codes, and on structural inspection with notes on any deficiencies and recommendations for any further investigations, and/or proposed remedies. Provide six (6) sets of preliminary design documents at the 20% level to the City for review.

2.2.2.3 Final Design

(a) Objective:

Proceed with the design upon approval of the preliminary design work and City authorization to complete the project.

(b) Activities:

Develop a list of comments for inclusion in the final design. Conduct the necessary civil, mechanical, structural, and electrical engineering work to bring the plans and specifications to the sixty (60) percent level. Prepare 60% design drawings and an outline of the specifications for review by the City. The design shall be "constructable" on the jobsite. Indicate any limitations to future plant expansion. The design shall not impede future expansion of other parts of the plant such as proposed installation of biofilters, and the proposed odor control facility (see Appendix D, and item "d." under Section 2.1.1, Background). Provide updates of any construction cost estimate changes from the 20% level. Arrange for a 60% review meeting with the City.

After City approval of the 60% package, prepare ninety (90) percent design drawings and specifications for review by the City. Arrange for a 90% review meeting with the City.

Prepare final 100% camera-ready design drawings, specifications and bid sheets, complete design calculations, a final engineer's cost estimate, a construction schedule, and at the completion of the final design, an outline of the operation and maintenance manual.

(c) Work Products:

Provide six (6) sets of design documents and any supporting documents at the 60% and 90% levels to the City for review. Provide notes on design review at 60% and 90% levels. Provide constructability comments and corresponding solutions.

Provide camera-ready design documents, and supporting documents with construction permits.

2.2.2.4 Bid Phase

(a) Objective:

Provide services as needed from advertisement through notice-of-award for the construction project.

(b) Activities:

Provide addenda drawings and specifications as required during the bid phase. Consultant shall be fully financially responsible for addenda resulting from design insufficiencies.

Respond to questions or requests for clarification from the bidders or the City regarding the plans and specifications. Note that the City will advertise and receive all contractors' bid responses at City Hall. Provide, as needed, evaluations and a recommendation on the submitted contractors' bids.

(c) Work Products:

Provide any approved addendum items to the City for timely distribution to the bidders. Submit to the City copies of written responses to bidders' requests for information or clarification in a timely manner.

2.2.2.5 Construction Phase

(a) Objective:

Provide services as needed from notice-of-award through the completion of the construction project, which is anticipated to take place in March, 2004.

(b) Activities:

Attend the preconstruction conference at the Newberg Wastewater Treatment Plant to address questions and issues. Provide predetermined periodic construction observation and testing services at appropriate frequencies to confirm the construction contractor's adherence to the construction contract documents. Prepare daily reports. Review and recommend approval of all shop drawings and catalog cuts, change order requests and monthly pay requests from the construction contractor. Complete a final operation and maintenance manual to the City's satisfaction. Provide final as-built drawings in

electronic format and also hard copy on 22" x 34" 4 mil archival quality Mylar.

Document all communication with the construction contractor.

(c) Work Products:

Submit daily construction observation reports to the City on a weekly basis. Include documentation of all communication with the construction contractor. Provide an ongoing record of correspondence (transmittals, memorandums, reviews, recommendations, etc.) to the City in a timely manner. Provide six (6) sets of final as-built drawings, and six (6) copies of final operation and maintenance manual to the City within sixty (60) days of the completion of the construction project. The manual shall also be provided in electronic format.

2.3 City's Responsibility

2.3.1 Project Tasks To Be Performed By The City

The City will:

- a. Provide a project engineer/manager responsible for the overall project management and will provide coordination between the Consultant and the City;
- b. Review and negotiate all contract documents;
- c. Prepare Council submittal package and conduct Council workshops;
- d. Make available a collection of data from City records such as property descriptions, as-built data, maps, etc., and City policies, regulations and guidelines to be used in developing the design;
- e. Make arrangement for City staff member(s) to provide timely response to any questions, and to be available for any meetings requested by the Consultant. All meetings will take place at the Newberg Wastewater Treatment Plant or as noted otherwise;
- f. Provide within two (2) weeks of submittal to the City, timely response to and approval of:
 - preliminary design (at 20% level), and
 - final design at 60% and 90% levels;
- g. Pay all required construction permits to outside agencies, upon request of the Consultant;
- h. Review, suggest modifications, and approve the operation and maintenance manual outline;
- i. Review and process monthly payment requests from the Consultant;
- j. Provide the base or template provisions for the construction contract to which the Consultant shall add terms and conditions unique to the project; and
- k. Perform other tasks as negotiated.

2.4 Consultant's Work Products

2.4.1 Compatibility

All documents and drawings shall be provided in the following formats. The City has largely converted to the Microsoft NT, version 4.0, environment and uses the following software:

- a. Word processing with Microsoft Word 2000. Please note that the City's base or template provisions for the construction contracts are still in Corel WordPerfect and shall stay that way until further notice.
- b. Financial tracking and other spreadsheets with Microsoft Excel 2000.
- c. Scheduling with Microsoft Project 2000.
- d. The City's computer aided design system consists of a windows-based environment utilizing Windows NT, AutoCAD 2000 and most current version of Bentley Microstation.
- e. The City's geographical information system consists of a windows-based environment utilizing Windows NT, Arc View 3.2, and Arc Info 7.2.1.

2.4.2 Project Presentation

All documents shall be delivered to and be permanently retained by the City. Documents shall be submitted to the City in written and electronic format, and may be reproduced by the City. The final reports shall be printed on 8-1/2" x 11" 25% cotton fiber quality paper. Charts, graphs, figures, data, digital photographs and exhibits can be presented in the reports on 11" x 17" paper of the same quality, if necessary.

Prior to all submittals, the Consultant shall perform a complete quality control review of all documents to ensure they are complete and accurate. The City's review is only to determine general level of compliance with project scope and quality requirements, and does not excuse the Consultant from producing a complete, high quality set of project documents.

The Consultant shall be:

- a. Available for meetings and be prepared to answer questions related to the scope of work.
- b. Willing to make revisions pertaining to comments.
- c. Responsive to requested changes of scope of work, if necessary.

The Consultant shall submit work products to the City that shall include, but are not limited to, the following:

- a. Progress reports, project reports at various phases of completion, sketches, exhibits, plans, and other information on paper, computer disk, compact disk, or hard copy reproducible media, as required by the City.

- b. Provide six (6) copies of reports, drawings, etc., at each submittal, unless instructed otherwise by the City.

2.4.3 Insurance Coverage

The City's required insurance coverage is described in the sample professional services agreement (see Appendix A). Insurance coverage includes the following categories of insurance:

- a. Comprehensive general liability - \$2,000,000.00
- b. Professional liability - \$500,000.00
- c. Automobile liability - \$500,000.00
- d. Workers' compensation – As required by ORS 656.017
- e. Professional errors and omissions - \$500,000.00

The Consultant shall provide certification of all coverages and shall include the City of Newberg, its officials, employees, and agents, as "additional insureds" on all except workers' compensation insurance policies prior to signing the contract.

***** END OF SECTION TWO *****

SECTION 3

PROPOSAL REQUIREMENTS AND EVALUATION

3.1 Proposal Submittal

To receive consideration, submit proposals in accordance with the following instructions:

Proposals should be prepared simply and economically, providing a straightforward, concise description of proposer's capabilities to satisfy the requirements of the RFP. Emphasis should be on completeness and clarity of content.

The City, at its sole discretion, has the right to negotiate with any or all proposers regarding their proposals. Additionally, the City may reject or accept any or all proposals or parts thereof, submitted in response to this RFP.

The City recognizes that in the submittal of proposals, certain information is proprietary to the proposer and that the safeguarding of this information is necessary. Accordingly, the City will make every effort to prevent any disclosure of data supplied by any proposer where the proposer identifies those portions of its proposal that are proprietary. See Section 1.11, Public Records.

Six (6) sets of the proposal are due at 2:00 p.m., local time on Thursday, February 6, 2003. Proposals submitted after this time will be returned to the proposer unopened. Proposals must be submitted in a sealed envelope bearing the proposer's name, address, phone, fax and e-mail, as applicable, and marked as "HEADWORKS RETROFIT DESIGN". Proposals can either be hand delivered to the Newberg City Hall or mailed to the Post Office address but not both. However, proposers who choose to mail proposals shall allow sufficient mail delivery time and mail security check to ensure timely receipt of their proposals by the Project Manager.

If the proposal is hand delivered,
it must be brought to:

Paul Chiu, P.E.
Senior Engineer/Project Manager
Newberg City Hall
414 East First Street
Newberg, Oregon 97132

If the proposal is mailed,
it must be addressed to:

Newberg City Hall
Attn: Paul Chiu, P.E.
Senior Engineer/Project Manager
P.O. Box 970
Newberg, Oregon 97132

3.2 Incurred Costs

The City is not liable for any costs incurred by proposers in the preparation and/or

presentation of their proposals.

3.3 Content of Proposals and Evaluation Criteria

Six (6) sets of the proposal shall include the information requested in each of the items identified in the following table and in the order indicated. There are a maximum number of pages and minimum text font size permitted for each item of information.

A proposal exceeding the specified number of pages and text font size less than 11 will be considered non-responsive and the proposal will not be considered.

Supporting information shall be presented in a separate section, at the end of the proposal, and not counted in the page limit requirements. Front and back covers, as well as, section dividers are not counted in the page limit requirements. Each page shall be 8.5" x 11", unless otherwise noted. When using double-sided printing, each side of the page is counted as one page.

Each proposal will be judged on the completeness and quality of content, and as a demonstration of the Consultant's qualifications. Each proposal will initially be reviewed based upon the correct number of pages, insurance coverage and computer equipment compatibility. **Firms may be excluded from further consideration if the number of pages in each section is not correct, the firm's insurance coverage is unsatisfactory, or if the firm's computer equipment lacks compatibility with the City's system.**

The items of information to be included in each submittal, evaluation criteria, maximum points, and page limitations are shown on the chart below. An explanation of each item appears immediately following the chart.

CONTENT AND EVALUATION CRITERIA	MAXIMUM NO. OF PAGES	MAXIMUM SCORE
1. Introductory letter	1	0
2. Table of contents	1	0
3. Key personnel qualifications	5	7
4. Project scope and understanding	10	8
5. Project schedule (11" x 17" allowed)	1	5
6. Consultant's fee (11" x 17" allowed)	2	5
7. Additional supporting information	No limit	0
Totals	20	25

3.3.1 Introductory Letter

The introductory letter shall include, but need not be limited to, the following information:

- The name of the firm, as well as, the signature, printed name and title, telephone and fax number of the officer authorized to represent the Consultant in any correspondence, negotiations and sign any contracts that may result.
- The address of the office that will be providing the service, a project manager's name, telephone number, fax number, and e-mail address.
- The Federal and State Tax Identification Numbers, and the State of incorporation, if applicable, must also be included.

Indicate whether the proposer is a "Resident Bidder" as defined in ORS 279.029 and provide a statement that the proposal is valid for ninety (90) days after the submission deadline. Also provide a statement that the Consultant is willing to sign the Professional Services Agreement (PSA) without modifications (see Appendix A).

The proposer may use this section to introduce the proposal or to summarize the key provisions of the proposal.

3.3.2 Table of Contents

Include a clear identification of the material by sections and page numbers.

3.3.3 Key Personnel Qualifications

Provide a statement that portrays how the qualifications and experience of the firm's key personnel relate to the described work. The City expects commitment and no reshuffling of personnel during the project. The response should address the following:

- a. Key personnel experience with this type of project, and familiarity with the City of Newberg.
- b. A brief resume outlining the experience and qualifications of the person who would be directly responsible for this project. Identify any applicable registrations. Indicate the number of other projects that will be managed by this person during the time he or she would be managing this project.
- c. A listing of other individuals who would contribute to a team in the project until its completion, with a summary of each team member's area of responsibility, expertise, experience and qualifications for this work.

3.3.4 Project Scope and Understanding

The Consultant shall:

- a. Include a statement of understanding of the project.
- b. Provide a detailed design work plan that describes how the Consultant will organize and conduct the design by task. This plan must include all major milestones of the design, with targeted completion dates for each task, as well as for each required deliverable. If the design can be completed in a shorter timeframe than the "Schedule" noted under Section 1.3, please indicate the proposed schedule.
- c. Provide a detailed construction work plan that describes how the Consultant will organize and manage the construction, as the project will move to public bidding and construction phases. This plan must offer good management skills.
- d. Include an explanation of any modifications of the work items and scope of work presented in this request for proposal.
- e. Provide a definition of how the Consultant will ensure project progress and quality control.
- f. Provide a description of the Consultant's approach and methodology of managing work tasks and coordination, sequencing and control of field operations used to accomplish the work in a timely manner.
- g. Describe how the Consultant would propose to use City personnel, if at all, to assist in the overall project and indicate the approximate time requirement.
- h. Include a separate and specific description of each point in the RFP that is not completely met by the proposal. If, in the project description, the Consultant proposed an alternate approach to the RFP tasks, indicate that in this proposal section. If necessary, include supplemental terms to add to the City's PSA. See Section 1.10, Execution of Contract.
- i. If the proposer has covered all the items in the RFP, then this section should include the statement, "All RFP items have been covered in this proposal".

3.3.5 Project Schedule

Prepare a project schedule for each significant segment of the work, from "Notice to Proceed" on design to completion of the construction work.

City staff requires a minimum of fourteen (14) calendar days for review of each submittal. The Consultant shall include this time in their schedule. The Consultant shall also allow in construction phase, approximately four (4) months for equipment submittals and delivery to the jobsite by the construction contractor.

3.3.6 Consultant's Fee Schedule

Indicate proposer's all-inclusive fees for which the requested work will be done, including sub-consultant fees, broken down as follows:

- a. Cost estimate including hours by task as identified in the scope of work and total hours.
- b. Identify by Consultant's personnel category and individual staff, the total hours multiplied by the proposed hourly billing rate.

- c. The fee should include all out-of-pocket costs (travel, printing, etc.) and a fee should be stated for each segment of the project or each phase of the project. All cost of living adjustments, if necessary, shall be clearly stated.
- d. Describe the method the Consultant would use in charging for any special requests, reports or broadening of the scope of work beyond that described in this RFP.

3.3.7 Additional Supporting Information

Supporting materials should include only resumes, references and public client list. The reference list shall have no more than five clients with projects similar to this one. Please include the name, address, phone number, fax number and e-mail of the contact person for each reference. Detail the type of work done that supports the listed mandatory requirements in this RFP. In addition, list all the public clients served. Include contact persons for projects in the last two years, or the last ten clients, whichever is least. If there is no additional information to present, state: "There is no additional information we wish to present".

***** END OF SECTION THREE *****