1 OF 1 FOR UPS SHIPPING ONLY

OR 979 9-01

gc

SHIP TO:
JAYNE MCMAHAN, MGMNT. SPECIALIST
(541) 726-3708
CITY OF SPRINGFIELD
FINANCE DEPARTMENT
225 FIFTH STREET
SPRINGFIELD OR 97477

UPS GROUND
TRACKING #: 1Z 988 144 03 7335 5015

REF 1:RFP: Engr. Services: P21046
REF 2:58th St. Relief SS Line & MH

BILLING: P/P

Recieved
2.25.11
2:15 pm

WB 12.0.17 HP LaserJet 5 12.0A 6/2011

FOR UPS SHIPPING ONLY

Submitted by:
HGE, INC., Architects, Engineers, Surveyors & Planners
375 Park Avenue, Suite 1, Coos Bay, Oregon 97420
541.269.1166 / FAX 541.269.1833 / general@hge1.com

TO:
CITY OF SPRINGFIELD
FINANCE DEPARTMENT
ATTN: JAYNE McMAHAN, Management Analyst
225 FIFTH STREET
SPRINGFIELD, OREGON 97477

For: [redacted]

Contents: One (1) original and SIX (6) copies of the proposal

ORIGINAL

HGE INC

ARCHITECTS
ENGINEERS
SURVEYORS
PLANNERS

375 PARK AVE
COOS BAY
OREGON
97420

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N PACIFIC PLAZA
1675 SW MARLOW AVE
SUITE 305
PORTLAND
OREGON
97225

503.277.2400
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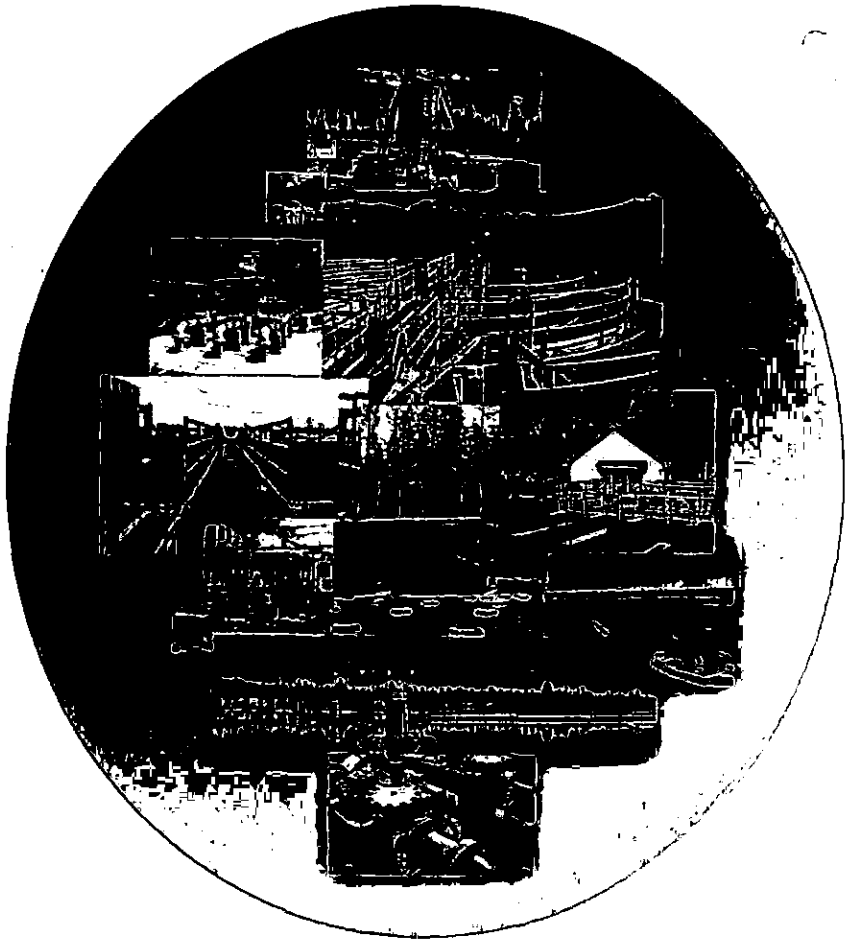
PROPOSAL TO PROVIDE ENGINEERING CONSULTING SERVICES

58TH STREET RELIEF SANITARY SEWER LINE & BY PASS MANHOLE P21046



for the

CITY of SPRINGFIELD

Oregon

Due: February 28, 2011, 2:00 p.m.

S502

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PROPOSAL
to Provide Engineering Consulting Services Related to
58TH STREET RELIEF SANITARY SEWER LINE AND BY PASS MANHOLE
Project P 21046

HGE INC

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OREGON
97420

541.269.1166
FAX 541.269.1833

Richard D. Nored, P.E.
Joseph A. Slack, A.I.A.
Russ Dodge, PLS
Stephen R. Cox

February 23, 2011

City of Springfield
Finance Department
225 Fifth Street
Springfield, Oregon 97477

Attn: Jayne McMahan, Management Analyst

Re: RFP for Engineering Services for Scoping, Design, and Installation of the 58th Street Relief Sanitary Sewer Line and Bypass Manhole, Project P21046

Dear Ms. McMahan:

HGE INC., Architects, Engineers, Surveyors & Planners (HGE) respectfully submits the attached proposal for the above referenced project. Our proposal has been prepared to demonstrate our strong desire to work with the City of Springfield on this project and to show that we are the best fit for the City.

HGE is a medium-sized firm with experience working with numerous municipalities in the State of Oregon. We have the qualifications, capacity, and resources required to perform the requested services promptly and efficiently. Our commitment is to focus most of our resources to the needs of the City of Springfield. Part of the team we are bringing into this project is PBS Environmental and Engineering for geotechnical engineering and inspection. We have worked closely with PBS on many other projects, and are very comfortable in working with them to provide quality service to the City of Springfield.

Mandatory proposal requirement #1: HGE certifies that the proposed project team will provide all aspects of the work as outlined in the above referenced Request for Proposals and that the work will be completed within the time scheduled in the draft agreement. Our proposal is valid 60 days after the RFP closing date of February 28, 2011.

We acknowledge receipt of Addendum No. 1, No. 2, and No. 3, and enclose copies as part of the requirements of the RFP.

We look forward to the opportunity to be of service to the City of Springfield and to successfully complete sewer system improvements for the City. Please contact us at any time if you need additional information or if we can assist you in any way.

Very truly yours,

HGE INC., Architects, Engineers,
Surveyors & Planners

Richard D. Nored, PE
President and Project Manager

SPRINGFIELD OREGON

ATTACHMENT 2

Authorization to Legally Bind Proposer

The person executing this Proposal and the instruments referred to herein on behalf of the Proposer have the legal power, right, and actual authority to submit this Proposal, and to bind the Proposer to the terms and conditions of this Proposal.

2/23/2011

(Signature of person authorized to bind Proposer) **Dated**

RICHARD D. NORED, PE, President

Print Name of Person Signing as authorized to bind Proposer

HGE Inc., Architects, Engineers, Surveyors & Planners — **Firm Name**

541.269.1166 — **Phone**

375 Park Avenue, Suite 1 — **Address**

541.269.1833 — **Fax**

Coos Bay, Oregon 97420 — **City, State, Zip**

rnored@hge1.com — **email address**

February 8, 2011

REQUEST FOR PROPOSAL
Public Works
P21045 58th Street By Pass

ADDENDUM #1

The City of Springfield is hereby amending or clarifying the above mentioned Request for Proposal (RFP). The original document can be found on the City's website at www.springfield-or.gov by selecting the hyperlink *Purchasing/Contracts* from the menu on the left side of the home page, interested parties will be linked to the RFP/ITB page.

1. **Question:** We would like to receive PDF copies of proposals from Murray Smith and Associates and Harper Houf Peterson Righellis for the Jasper Trunk Sewer project, project # P20353

   City's Response: The two RFP responses have been posted to the following URL's
   Http://springfield-or.gov\RFP\P20353 Murrary, Smith and Asso. Bid Proposal Received.pdf
   Http://springfield-or.gov\RFP\P20353 Harper Houf Peterson Righellis Bid Proposal Received.pdf

In the event that it is necessary to further amend, revise or supplement any part this RFP, additional addenda will be posted on the City's website at http://www.springfield-or.gov (select the ***Purchase Contracts*** hyperlink and Addendum 1 P21046 58th Street By Pass). As stated in the original solicitation, City will make a reasonable effort to provide the addenda to all Proposers to whom City provided the initial Request for Proposal. This addendum shall be considered part of the specification of the Request for Proposal. The City is not responsible for any explanation, clarification, interpretation or approval made or given in any manner except by written addenda issued by City.

ALL BIDDERS SHOULD ACKNOWLEDGE AND INCLUDE THIS ADDENDA #1 AS PART OF THEIR SUBMITTAL PACKAGE.

February 16, 2011

REQUEST FOR PROPOSAL
Public Works
P21045 58th Street By Pass

ADDENDUM #2

The City of Springfield is hereby amending or clarifying the above mentioned Request for Proposal (RFP). The original document can be found on the City's website at www.springfield-or.gov by selecting the hyperlink *Purchasing/Contracts* from the menu on the left side of the home page, interested parties will be linked to the RFP/ITB page.

1. **Question:** Where is the URL for the project in the Sanitary Sewer Master Plan?

   City's Response: The URL for the Master Plan is http://www.springfield-or.gov/Pubworks/Projects/Waste_Water_MP_Internet_Posting.pdf, as it appears in the RFP. Page 3, Paragraph 3 is hereby amended as follows: Strike "~~Page 53 and Figure 5.5~~" and replace with "Figure ES-1 and Table ES-1".

2. **Question:** Page 16 of the RFP appears to have duplicate information.

   City's Response: Page 16 is hereby amended to read as follows (eliminating #'s 4- 6).

AMOUNT AND METHOD OF PAYMENT

1. The City shall compensate the Consultant for testing, design and construction management engineering and inspection services, as outlined in Sub-sections 1 through 8 above and in their proposal dated _____, in the amount not to exceed $_____.

2. The compensation for engineering services shall be payable for billed services performed on a monthly basis, in accordance with the agreed fee schedule. To request a progress payment, a certified billing for the Consultant shall be submitted to the City Engineer ten (10) days prior to the first Monday of the month following the billing period. In case of termination, the Consultant shall be paid for the actual acceptable work performed to date in accordance with the agreed fee schedule.

3. Total compensation to the Consultant, listed in Sub-section 1 above, shall be full compensation for all services necessary to fulfill the Consultant's obligations, including,

but not limited to, sub-contractors, the expense of printing, equipment, material, personnel, telephone, travel and per diem.

In addition to the foregoing being performed, the following additional services will be provided upon prior written authorization of the City.

Redesigns ordered by the City after final plans have been accepted by the City.

Appearance before courts or boards on matters of litigation or hearings related to the project.

Other services as requested by the City.

~~4. The City shall compensate the Consultant for testing, design and construction management engineering and inspection services, as outlined in 1 through 3 above and in their proposal dated _____, in the amount not to exceed $_____.~~

~~5. The compensation for consultant services shall be payable for billed services performed on a monthly basis, in accordance with the agreed fee schedule. To request a progress payment, a certified billing for the Consultant shall be submitted to the City Engineer ten (10) days prior to the first Monday of the month following the billing period. In case of termination, the Consultant shall be paid for the actual acceptable work performed to date in accordance with the agreed fee schedule.~~

~~6. Total compensation to the Consultant, listed in Sub-section 1 above, shall be full compensation for all services necessary to fulfill the Consultant's obligations, including, but not limited to, sub-consultants, the expense of printing, equipment, material, personnel, telephone, travel and per diem.~~

In addition to the foregoing being performed, the following additional services will be provided upon prior written authorization of the City, other services as requested by the City.

3. **Question:** What Vertical Datum does the City use?

   City's Response: NAVD '88

4. **Question:** Can we have copies of the sign in sheets from the Project Information Meeting Feb. 16, 2011?

   City's Response: The sign in sheets for the meeting can be downloaded at:

   http://springfield-or.gov/rfp/RFP P21046_58th St. Sewer By Pass_Project info meeting sign in.pdf

In the event that it is necessary to further amend, revise or supplement any part this RFP, additional addenda will be posted on the City's website at http://www.springfield-or.gov (select the ***Purchase Contracts*** hyperlink and Addendum 2 P21046 58th Street By Pass). As stated in the original solicitation, City will make a reasonable effort to provide the addenda to all Proposers to whom City provided the initial Request for Proposal. This addendum shall be considered part of the specification of the Request for Proposal. The City is not responsible for any explanation, clarification, interpretation or approval made or given in any manner except by written addenda issued by City.

ALL BIDDERS SHOULD ACKNOWLEDGE AND INCLUDE THIS ADDENDA #2 AS PART OF THEIR SUBMITTAL PACKAGE.

February 23, 2011

REQUEST FOR PROPOSAL
Public Works
P21045 58th Street By Pass

ADDENDUM #3

The City of Springfield is hereby amending or clarifying the above mentioned Request for Proposal (RFP). The original document can be found on the City's website at www.springfield-or.gov by selecting the hyperlink *Purchasing/Contracts* from the menu on the left side of the home page, interested parties will be linked to the RFP/ITB page.

1. **Question:** During our mandatory project meeting, the question was asked about easement acquisition for businesses on the original routing for the 58th St. Relief Sewer. The answer was that the City had already acquired the easements. In reviewing the requirements for easement acquisition, I would like to make certain that these easements have been obtained. Is this correct?

   City's Response: The City has not acquired the possible easements for routing of the Relief Sewer. The selected Consultant is required to provide a design report with a minimum of two Sewer Line routings. The City will select the design Sewer Line route from the design report. Until then, it is unknown if easement acquisitions will be required.

In the event that it is necessary to further amend, revise or supplement any part this RFP, additional addenda will be posted on the City's website at http://www.springfield-or.gov (select the ***Purchase Contracts*** hyperlink and Addendum 3 P21046 58th Street By Pass). As stated in the original solicitation, City will make a reasonable effort to provide the addenda to all Proposers to whom City provided the initial Request for Proposal. This addendum shall be considered part of the specification of the Request for Proposal. The City is not responsible for any explanation, clarification, interpretation or approval made or given in any manner except by written addenda issued by City.

ALL BIDDERS SHOULD ACKNOWLEDGE AND INCLUDE THIS ADDENDA #3 AS PART OF THEIR SUBMITTAL PACKAGE.

HGE INC

ARCHITECTS
ENGINEERS
SURVEYORS
PLANNERS

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1675 SW Marlow Avenue
Suite 305
Portland, Oregon 97225
503.277.2400
general@hge1.com

HGE, INC., Architects, Engineers, Surveyors & Planners (HGE) is an employee-owned firm specializing in municipal projects for Oregon communities.

1.1 History

HGE has provided continuous professional services to our clients for more than 58 years. Our headquarters office, located in Coos Bay, was established in 1952. A second office was opened in Portland during 1974 to provide improved services to clients in northern Oregon and southern Washington, and to facilitate coordination with state and federal agencies. HGE's increasing involvement in many projects in northeastern Oregon, necessitated a field office, which was opened in 1990 at Baker City in conjunction with Hanley Engineering.

HGE Inc., Engineers and Planners, and *Harlan/Miller Associates, PC, Architects* have shared ownership, staff, facilities and resources in both our Coos Bay and Portland offices since 1980. In 1996, with the elimination of state regulations regarding architecture and engineering firms working together, the two companies officially joined to become **HGE Inc., Architects, Engineers, Surveyors & Planners.**

Our principals, most of whom have been with HGE for 20 years or more, purchased the firm and its records from previous ownership in 1995, maintaining a highly qualified design group with extensive design and construction management experience. Since inception, the new management has provided exceptional service to our many clients, including major municipalities, government and private institutions, Indian tribes, housing developments, and schools.

During our 58 years in business, we have successfully completed more than 7,000 projects in Oregon, varying in size from several thousand dollars to over $14 million in construction costs. The longevity of our firm attests to the quality of our performance.

1.2 Cost And Value

Because of our experienced staff and the limited overhead of our medium-sized group, HGE has the ability to complete major wastewater improvements with quality plans at a minimum of cost for the services provided. We offer good communications and good value for the costs incurred.

1.3 Philosophy

HGE believes strongly in providing quality design for every project undertaken, and in delivery of all projects on time and within the established budget.

We have developed a philosophy and method of work that is based on communication and teamwork. We begin by emphasizing the involvement of our clients in the project. HGE always considers the client the primary member of our team, an important resource, keeping them intimately involved in the project during all phases.

Benefits of Hiring HGE:

- ✓ Experienced personnel and project team.
- ✓ Continuity of design personnel throughout the project.
- ✓ Personal approach and quality of service.
- ✓ Demonstrated performance with similar projects.
- ✓ Staff availability to complete the project on time, within the established budget.

A Principal is assigned to every project, to whom the client always has direct access. The Principal-in-Charge remains directly involved throughout the project so that there is no loss of coordination or responsibility. When necessary, we gather together qualified consultants. From our staff, we assign sufficient numbers to the project to ensure that quality work is provided and schedules are successfully met.

In everything we do, we work to provide a comprehensive service to satisfy our client's needs and expectations. We have remained in business for over 58 years by pleasing our clients and caring about their project as much as they do, which leads to long-term, multi-project relationships.

1.4 Staff

HGE has an experienced staff of seventeen employees. Being a medium-sized firm provides us with the qualified staff necessary to successfully complete most community projects, while keeping our overhead low, thus ensuring quality service at a reasonable cost.

1.5 Disciplines

Principals directly manage and supervise personnel in each of the following disciplines of our firm:

Architecture: Commercial, Industrial, Educational, Medical, Institutional, and Residential.
Engineering: Water/Wastewater, Civil/Structural, Storm/Surface Water, Transportation, and Construction Management.
Surveying: Water Rights, Subdivisions, Multi-Housing, Aerial Photogrammetric, Hydrographic, and Volumetric.
Planning: Infrastructure, Environmental Planning, Master Planning, Feasibility Studies, and Code Compliance.

1.6 Statement Of Interest

HGE Inc., Architects, Engineers, Surveyors & Planners wishes to express our sincere interest in providing all engineering services necessary for the completion of the 58th Street Relief Sanitary Sewer Line and By Pass Manhole for the City of Springfield. HGE can provide all professional services as described in the RFP.

Our office has extensive experience with wastewater collection facilities, and with securing approvals from the Oregon Department of Environmental Quality. In recent years, we have designed more than 70,000 lineal feet of wastewater improvements.

HGE has provided ongoing services for numerous clients in recent years, including the following:

- Major new wastewater collection and treatment system for the City of Sisters in Central Oregon ($14.1 million),
- New wastewater pump stations and wastewater treatment plant for the City of Garibaldi,
- Rehabilitated wastewater treatment facility, major additions to the wastewater collection system and three new major pump stations for the

"HGE, Inc. worked closely with our citizen task force to develop a project that was acceptable to the community. The firm assisted the City in securing project funding, negotiating easements, and addressing environmental issues... We have found that the staff of HGE, Inc. has approached the challenges of the project in a professional, efficient manner. The firm addressed problems that have arisen with solutions that were both innovative, practical, and cost effective..."

Jerald P. Taylor
City Manager
City of Manzanita

Filtration equipment
Manzanita, Oregon

Control house
Manzanita, Oregon

La Pine Special Sewer District,
- Complete new water system for the LaPine Water District,
- New well field and 8 miles of major transmission main for the City of Manzanita,
- New membrane water filtration facility for the City of Manzanita
- New membrane filtration system for Spirit Mountain
- New water system for the City of Scotts Mills

We have assisted in obtaining grant funding for all these entities, and for most of our municipal clientele.

1.7 Principal-in-Charge

Richard D. Nored, PE, PLS, President. Richard Nored has more than 35 years experience in the planning, design, and construction of wastewater improvement projects. He has functioned as Project Manager/Project Engineer and Principal-in-Charge for hundreds of projects throughout Oregon. He has worked extensively with Oregon communities and currently represents the City of Sisters as City Engineer, and La Pine Water and Special Sewer Districts as District Engineer. Richard has extensive experience with water and wastewater system planning and design for municipal governments. His work with communities often involve establishing and maintaining intergovernmental agreements for utility interconnections and joint operations. Richard's resume contains his recent experience with many of our recent engineering projects.

1.8 Approach

HGE always considers community needs with a strong consideration towards the cost of developed facilities. In addition, to economize in long-term community needs, we view each project from the standpoint of serviceability, long-term effectiveness, maximized usage of existing facilities that may have remaining life, and long-term conveniences of developed facilities from an operational and maintenance standpoint. We make it a point to always develop public facilities that utilize proven technologies and equipment manufacturers with a quality reputation.

HGE realizes that all public facilities must be specifically structured for the communities they serve. City staff members, working for the community on a regular basis, often have extensive experience that can be put to good use in the planning of wastewater system improvements. An integral portion of our project approach involves a close working relationship between project team members and community staff. We always make it a point to listen strongly to community staff requests and concerns.

HGE represents many Oregon communities as city/district engineer. Representatives from our firm attend council meetings on a regular basis, and have attended numerous public hearings. Our extensive experience with public education programs has taught us to present information in a way that is easily understood. Our experience allows us to anticipate many of the questions that will arise as the project develops.

1.9 Summary of Firm Qualifications

Since 1952, HGE has completed more than 7,000 projects in Oregon. All studies, plans, system improvements, facility and site designs completed by HGE

"Each project undertaken by HGE has presented challenges - from funding issues, to design, to public awareness, to environmental issues. In each instance, HGE met these challenges with professional expertise and innovative and creative solutions. HGE consistently delivers a final project that met the community's needs, while staying on schedule and on the budget."

- Gary Frazee
Public Works Director
City of Sisters
July 3, 2003
541.549.6022 ext. 5

have been accepted by the clients and communities and approved by the governing regulatory agencies. Our expertise in preparing long-range system development and infrastructure improvement plans and the resulting improvement designs enables our firm to have a "real life" understanding of and approach to performing the required services. The following gives a brief summary of HGE's expertise in the areas relevant to the RFP:

- **Extensive Wastewater Design and Construction Experience.** During the past few years, HGE has completed wastewater and water system studies, master plans, expansion, rehabilitations, and new facilities for more than 30 Oregon communities. Members of this project team have completed design, collection treatment, and pumping facilities for the following communities, to name a few: *Winston, Sisters, Joseph, Garibaldi, Haines, Salem, Huntington, Lakeside, Yachats, Reedsport, Gold Hill, Port Orford, Myrtle Creek, Sutherlin, Adair Village, Oakland, Coos Bay, and Brookings*; and for the sanitary districts of *Gardiner, Tri City, and LaPine Special Sewer District.* We recently completed construction management for a complete new wastewater facility for the *City of Sisters* and the *Biggs Sanitary District*, and a new sanitary system for the *Wickiup Junction* area in Deschutes County.

- **Experience with Environmental Regulatory Agencies.** Over the past 58 years, HGE has worked with numerous communities whose projects required compliance with one or more regulatory issues.

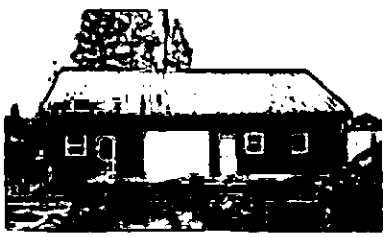
  Many of the funding programs that are currently available to Oregon communities require some degree of environmental study to be included in the application process. Our firm has written several Environmental Reports which have satisfied the requirements of these funding agencies. HGE has a strong record of producing studies, and designing water and wastewater treatment, distribution, and transmission systems that meet all local, state, and federal regulatory agency requirements.

Sisters pump station

- **Grant Funding Experience.** HGE has extensive experience with public works grant and loan programs. Many of our studies and master plans have provided documentation for construction projects financed by either the Oregon Economic and Community Development Department, EPA, or Rural Development program, or a combination of different funding programs. Our experience allows us to estimate potential increases in user rates for a variety of funding options while the project is still in the planning stage. Our office has experienced more success in securing federal and state grants and low interest loans than any other similar sized engineering firm in Oregon.

  Many communities require the assistance of grants and low interest loans in order to allow municipal projects to succeed. A quality engineering consultant that specializes in providing service to smaller communities, as HGE does, must develop good planning designs and must have the ability to secure grant funds for construction of needed improvements.

  During the last few years HGE has completed, or is providing design and construction management services for $33 million in capital improvements



Sisters treatment plant

Cost Control Methods

We have an excellent record in controlling construction costs and designing facilities within budgets. Our ability to control cost is a result of several factors:

- ✓ HGE works diligently to design facilities specifically for each community, working closely with City staff. This approach develops projects that save our clients extensive funding, and which are readily accepted by City staffs and ODEQ representatives.
- ✓ A broad range of experience, both in architecture and civil engineering. We understand the wide variety of factors that affect costs because we are experienced in all aspects of design.
- ✓ We have kept detailed records of our projects for the past twenty years. This information is in a form that can be quickly adjusted to reflect changes due to inflation and other economic factors.
- ✓ We subscribe to cost estimation publications and maintain life cost information.
- ✓ We seek direct information from suppliers and contractors as suggested by the specific project requirements.
- ✓ We are willing to spend the necessary time and effort to develop detailed cost information for the project.

that have been funded through the Rural Development program. We also have extensive experience in working with the Economic Development Administration, U.S. Department of Commerce, Construction Grants Program, and with the Oregon Economic Development Department and their many programs (i.e., OCDBG, Water/Wastewater Financing Program, SPWF) for administration of grants and loans.

- **Experience with Improvement Plans, SDCs, and Rate Studies.** HGE has prepared capital improvement plans, SDCs, and/or rate studies for more than 20 Oregon communities in the recent years. Most recently, we have completed rate and SDC studies for the City of Sisters, Terrebonne Sanitary District, LaPine Water District, LaPine Special Sewer District, Tri City Water District, and the Tri City Sanitary District.

- **Contract Technical Support Services - Construction Management.** HGE's experience as Engineer for many Oregon cities and districts (*Brookings, Sisters, LaPine Water District, LaPine Sewer District,* for example) makes us highly efficient with regard to responding to such general civil engineering work as project development, design surveys, preliminary and/or final design; preparation of bid documents, project administration, and construction management including easement preparations, survey stakeout and inspection services.

  HGE offers complete computer-aided design and drafting facilities. Our survey team has performed virtually every type of survey, as well as aerial photogrammetric and mapping services.

- **Services in Support of the Public Involvement Process.** With HGE representing a number of Oregon communities as City/District Engineer, an integral part of our service includes attending council meetings on a regular basis, and attending public hearings or any special meetings related to project work. We believe in maintaining close contact with our client through regular project updates and we are very responsive to client input.

  HGE excels at providing public information. We have initiated numerous public education programs to gain local support for projects developed by our firm. Our ability to effectively communicate project information and anticipate public concerns is demonstrated by the fact that in the 58 years of our history, we have helped communities pass all but two bond elections.

  HGE has been very successful in assisting communities secure the maximum amount of grant dollars for needed project improvements. We have an extensive network of contacts in the state regulatory and funding agencies that can provide information and comments on ongoing projects and approaches. The combination of HGE experience, staff expertise, municipal experience, and regulatory and funding contacts contribute to a high level of quality in the engineering services we provide.

- **Experience in Oregon.** Since the establishment of our office on the Oregon Coast, HGE has provided quality service and design to Oregon communities. Members of our staff live and work in Oregon on a continuous basis, and we are very much aware of the conditions and needs

unique to each geographical area of Oregon. These include seasonal and environmental concerns, with consideration for tourism demands and specific maximum impact time frames, and the variety of challenging construction environments that currently exist.

- **Experience in Cost Control.** HGE has an excellent record in controlling construction costs and designing facilities within budget. We recognize that controlling construction costs during the design process is one of the most important services we can provide our clients. The most creative and thoughtful design solutions are meaningless if construction bids prove to be beyond financial responsibility. We strive to avoid disappointments and misunderstandings resulting from budget difficulties in several ways.

  First of all, providing realistic advice during the preliminary design stage helps to maintain the balance between the desires and aspirations for the project and the financial realities. HGE offers sound advice as a result of experience with costs for similar projects and locations, and knowledge of cost trends and "bidding climates."

  Secondly, we monitor construction costs at several points during the project. Each time a material is selected or a construction method or sequence is determined, there is a parallel effect upon the ultimate cost of the project. Careful selection of materials and knowledge of the construction process is essential in order to reduce cost and control the construction budget.

New reservoirs and well house Rufus, Oregon

Pre-cast manhole sections for installation on Chetco Avenue (Brookings)

1.10 Availability of Special Resources or Equipment

HGE maintains a wide area network that brings together its Coos Bay office with the Portland office. High speed DSL Internet connectivity with virtual private network (VPN) technology make up the backbone of our computer network. The VPN extends our network with a secure real-time link to our Portland office. We utilize Microsoft Windows XP Professional on all of our workstations linked to our server array running Microsoft Windows 2007 Server. The high speed Internet and network sets the stage for communication on several levels from the office to the Internet.

Both offices offer complete computer aided design and drafting facilities. The latest versions of AutoCAD, Land Development, Civil Design, and Survey make up the core of our design software. Add to this list a host of water, sewer, hydraulics, hydrology, GIS, structural, and transportation design software. All of the staff use a variety of software, which includes: word-processing, spreadsheet, database, project management, accounting, and presentation software.

HP color and black and white plotters are used at both offices. The Coos Bay office also utilizes a Xerox 8825 production printer, the fastest in its class producing four D-size prints per minute, for producing construction drawings. Both offices also have large format and standard copying machines as well as a host of networked laser and color ink jet printers.

1.11 Description of Insurance Coverage

HGE maintains errors and omissions insurance coverage to protect our clients from errors in both planning and design. It is noteworthy that although we

maintain errors and omissions coverage, our current firm has been successful in the fact that we have never experienced a claim from either our municipal clients, or from construction contractors on our extensive projects. Our worker's compensation insurance, automobile coverage, general liability insurance and error and omissions insurance coverage meet or exceed typical requirements. If selected, we shall provide satisfactory proof of insurance for all coverage, and (except for workers' compensation policies) we are prepared to obtain certificates of insurance for our client, naming it as an additional insured.

Policy Limits and Deductibles

Professional Liability (Errors and Omissions)		
Limits	$1,000,000/$2,000,000	
Deductibles	$25,000	
Commercial General Liability		
Limits	$4,000,000	General Aggregate
	$2,000,000	Each Occurrence
Automobile Liability		
Limits	$1,000,000/$4,000,000	
Deductibles	$0	
Worker's Compensation		
Limits	$500,000	

Winch post - Lagoon #2 - under construction
La Pine Special Sewer District

1.12 Financial Ability of Firm

HGE has practiced professionally in Oregon for 58 years, and currently provides approximately $2,000,000 in consulting services each year. The company is fiscally sound, and has no long-term debt, which should be good evidence of financial capabilities.

1.13 Policy of Nondiscrimination

HGE is an equal opportunity employer and complies fully with nondiscrimination procedures provided under Title 49, Code of Federal Regulations, Part 21. HGE also has an approved Affirmative Action Program which qualifies for all federal and state programs. HGE does not discriminate against any person or applicant for employment because of race, color, religion, age, sex, national origin, or physical handicap.

1.14 Evidence of Good Standing in the State of Oregon

HGE is a resident bidder as defined by ORS 279.029. In addition, HGE's managing professionals are registered by the State of Oregon to practice in their respective disciplines.

1.15 Authorized Representatives

Richard D. Nored, PE, PLS, President, and **Vice Presidents: Joseph A. Slack, AIA, Stephen R. Cox,** and **Russ Dodge, PLS, WRE,** are all authorized to represent, negotiate, and sign any contracts on behalf of HGE.

HGE INC

ARCHITECTS
ENGINEERS
SURVEYORS
PLANNERS

Original 58th St. Routing

SECTION 2: UNDERSTANDING, SCOPE OF WORK AND APPROACH

2.1 Introduction

HGE approaches this project with a small team of experienced professionals, who will undertake the project, and provide quality service to the City of Springfield. Our project team, combined with geotechnical engineers and project construction observers from PBS Engineering, will provide a responsive, experienced team that will make the 58th Street Relief Sanitary Sewer Line and By Pass Manhole project a # 1 priority. We will offer good service, good communication, and good coordination with the City of Springfield Public Works and Maintenance staff throughout our work on the project. HGE is very committed in this project, and will guarantee a quality project that meets all expectations of the City of Springfield. All aspects of the work, as outlined in this Proposal, shall be completed within the time schedule provided, in full accordance with the terms of the Request for Proposals for the 58th Street Relief Sanitary Sewer Line and By Pass Manhole.

2.2 Description of Firm's Experience in the Type and Scope of Work

Please refer to Section 4 of this Proposal.

2.3 Description of Project Team

Please refer to Section 3 and to the individual resumes for project team members.

2.4 Project Understanding

HGE representatives have spent considerable time in evaluating potential routings that will simplify the planned 58th Street Sanitary Sewer Bypass; to minimize the business and traffic disruptions created by the need to complete the needed improvement; and to reduce overall project costs for the City of Springfield. The proposed routing for the project follows the City's Wastewater Master Plan, and proposes construction in the heavily traveled 58th Street and along Main Street, crossing the Bob Straub Parkway, which will necessarily require a deep boring of the Parkway. The current routing anticipates a new bypass sewer being installed directly across the front of Thurston High School, and through easements which have been obtained across the frontage of several major businesses. Current plans envision construction starting in June of 2012, which would minimize the disruption to Thurston High School, but traffic control and maintaining business travel along 58th Street and Main Street will be difficult to achieve. It is expected that ODOT will require work along Main Street to be accomplished at night in order to minimize traffic disruption, but deep excavation and limited room for the relief sewer construction will make construction along Main Street extremely difficult. In addition, any disruption to the traffic lanes on Main Street, and for construction along 58th Street will involve extensive pavement restoration. It is also likely that ODOT will require boring of Main Street in front of BiMart, and extensive restoration for the required excavation to connect with the end point of the project in Main Street at 54th Street.

In researching alternative routings, there is an obvious location along the East side of the BPA right-of-way that should be strongly considered. We have had

good success in working with BPA on other similar relocations, and we would entertain discussions with BPA and the three separate property owners maintaining title in the BPA Right of Way before making a final decision on an alternative routing to be developed in our pre-design effort. While this option is the most cost effective approach, we will utilize the designation of Alternative 1-A on this alternative, and will only explore this option if BPA and the three property owners appear to be conducive to allowing usage of their right-of-way and ownership for the sanitary bypass construction. However, it appears that the parties have previously reached joint agreement on this right of way usage, because several truck gardens and orchards are planted within their R/W, and some of the trees appear to have been there for many years.

The primary Alternative that we believe needs to be developed partially follows a similar location for the BPA routing, but suggests that the relief sewer extends along Thurston Road to 56th Street, down 56th Street to A Street, crossing the Bob Straub Parkway with a boring on A Street, extending down A Street to 54th Street, and then along 54th Street to intersect with the identical end manhole proposed at the centerline of Main Street and 54th Street. If the Alternative A-1 is possible, the routing will extend along the BPA easement from Thurston Road, and will continue to intersect with 56th Street on the South, extending to A Street, and following the identical routing to the end manhole proposed at Main Street and 54th Street. Either of these routings has a considerable advantage in depth of the needed excavation, which will be a serious concern along Main Street. Grade of the ground surface falls substantially to the West of 58th Street, and excavation required will be from 2 to 5 feet shallower along the Alternate routing in comparison to the proposed 58th Street routing. Comparisons of the potential routings are provided as follows:

Original 58th St. Routing

Original 58th Street Routing - This routing for the relief sewer begins at Thurston Road and 58th Street, at a depth of approximately 10 feet in a bypass manhole. Routing continues Southerly along 58th Street in a quality paved street with extensive traffic past Thurston High School to just short of Main Street, at a depth of approximately 22.5 feet. Construction is anticipated during the summer months of 2012, to avoid the majority of the school traffic and to allow construction with the lowest possible water table, but traffic control along 58th Street will be a major concern, and street reconstruction will be substantial. The City of Springfield has obtained easements across the Big Lots-Bi Mart frontage, and then crossing the street to obtained easements across the South side of Main Street to 54th Street. Construction across the accesses for major businesses will be a serious detriment to business access during the summer of 2012, even though the Oregon Department of Transportation will most likely require night construction along Main Street, likely with paving on a temporary basis for all damage to the street surfacing, on a nightly basis. Traffic control along Main Street will be a significant cost, particularly with anticipated construction during night hours. Depth along Main Street will be from approximately 22.5 feet to 20 feet, with water anticipated in the construction, and anticipated trench widths to be determined during predesign. It is likely that street surfacing and many of the sidewalks will be damaged during construction, and it is known that a boring will be required across the Bob Straub Parkway. We anticipate that ODOT will also require a boring across Main Street from Bi-Mart to the Albertson's Gas Station. At the depths anticipated, ODOT will likely require a cased boring across Main Street and the Parkway, and an open cut will

be required to connect with the end of the project manhole at 54th Street. Bore pits at any of these locations will be difficult to achieve, because all of the surfaces are extensively developed with landscaping, sidewalks, or paved surfacing. All paved surfacing on this routing will require T cuts for damages to the paved surfaces, and restoration will be substantial. Permits for this routing will be extensive, involving ODOT, Lane County, and the City of Springfield, and will include extensive traffic control, increased construction standards, and most likely construction entirely at night along Main Street.

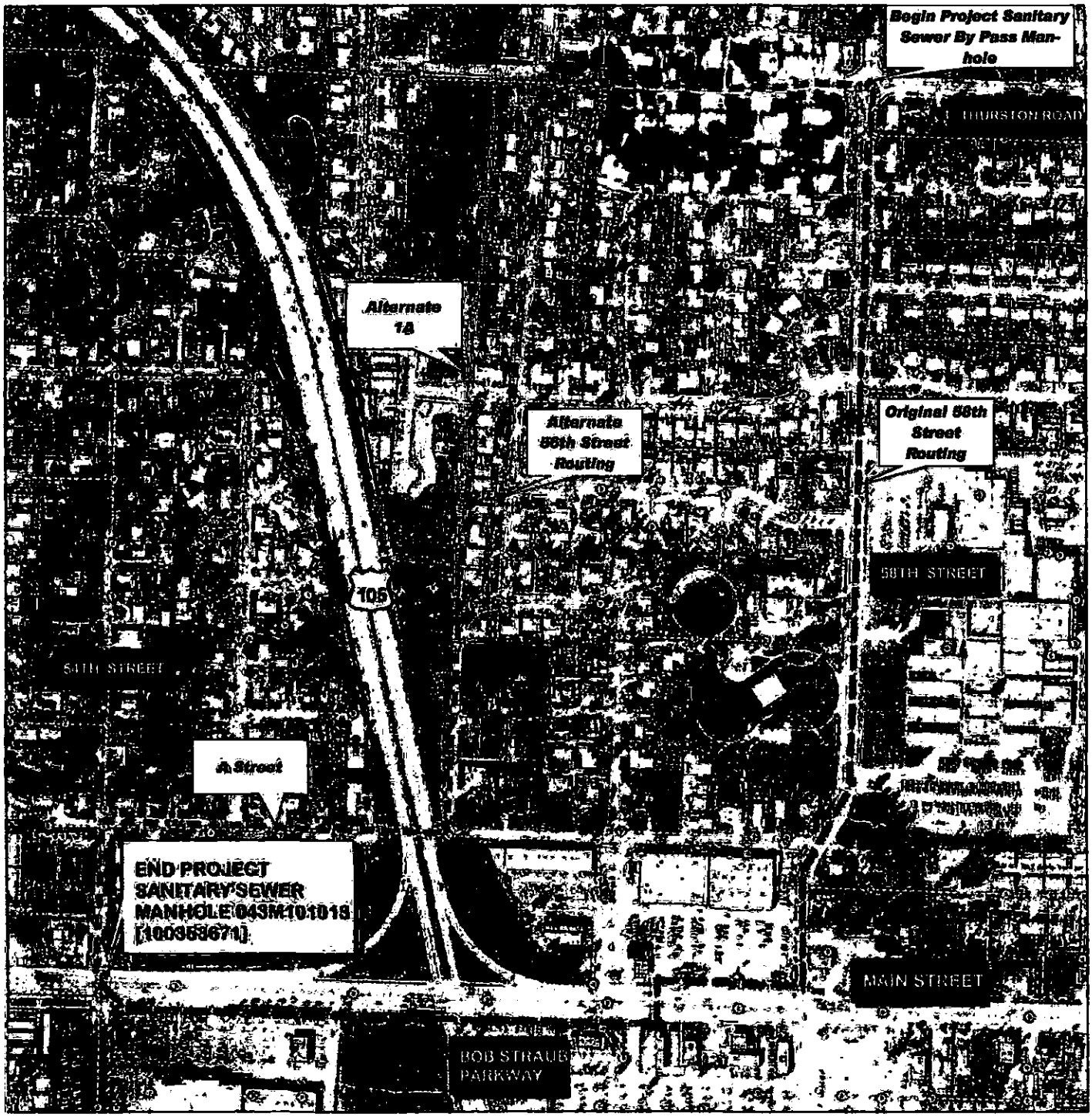
Potential Alternate 1-A

Alternate # 1 56th Street Routing (see figure on the following page) - This routing for the relief sewer begins at Thurston Road and 58th Street, at a depth of approximately 10 feet, and extends West down Thurston Road to 56th Street. Portions of Thurston Road have been paved recently, but much of the surfacing is in need of improvements. Traffic will be very moderate in comparison to the original routing, and could be easily rerouted to adjacent streets. Depth of the new relief sanitary sewer will be approximately 10 feet depth at 56th Street, with ground surfacing falling towards 56th Street, or potentially the alternative routing down the BPA R/W. Existing street improvements on 56th Street are not in good condition, although there appears to already be a sanitary sewer and storm drain in 56th Street, which will require quality location for the new relief sewer to be installed. Traffic could be easily diverted from 56th Street to connecting roadways for access to 58th Street and Main. The relief sewer can then continue along 56th Street to A Street North, where adequate room exists for a bore pit to extend a bored pipeline under the Bob Straub Parkway. Depth at A Street North will be approximately 18 feet, which is much easier to achieve than the greater depth on 58th Street, and room also exists on the West side of the Parkway for a quality bore pit at that location. Since this location is in a much less congested area, it is anticipated that ODOT would approve a directional boring at this location, which would function well with a relief sewer, potentially with an increased slope under the parkway. Once again, costs would be substantially reduced with this means of construction. The reduced depth of construction for this routing, combined with traffic control, and with a lesser current level of development, will equate to considerable cost savings, particularly when rock and water conditions are better defined after the predesign report is completed. Construction will then continue on the West side of the Parkway along A Street to 54th Street, in a street in very marginal condition, and with very limited traffic. Depth of the sewer main at 54th Street will be approximately 16.5 feet, which again can be easily achieved. Construction would then proceed to connect with the end of the project manhole at 54th Street and Main Street. An open cut will be required across Main Street to interconnect with the existing manhole, and this section will require similar construction to the original routing, except in the opposite direction. Permits with this routing will be limited to ODOT and City permits, except for the initial crossing of 58th Street, which is a Lane County R/W, and permits should be much easier to achieve. In addition to ease of construction, this routing is very positive for business along Main Street, and for summer events at Thurston High School, and business in the current economy is worthy to preserve.

The design will utilize the latest available version of Civil 3D Software, and will follow the Springfield Design Manual for Public Works Projects.

City of Springfield 58th Street Sanitary Sewer By Pass P21046

PROPOSED ALTERNATE ROUTES



2.5 Project Approach

Work on this project will be conducted out of HGE's Coos Bay office. The close proximity of our office to the City of Springfield allows us to meet with City staff on a regular basis throughout the project and to provide on-site construction management service in conjunction with the project construction observer. All design, surveying, and construction management will be conducted in-house by HGE staff, thereby providing the City with a high level of quality and responsiveness. Geotechnical engineering recommendations and on-site construction observation will be provided by PBS Engineering from their office in Eugene, Oregon.

In general, as the project unfolds, we will maintain very open lines of communication to ensure that the City knows what we are doing and why, and to assure that we understand and, to the extent possible, can accommodate the City's concerns and desires. HGE realizes that all public facilities must be specifically structured for the communities they serve. We anticipate working very closely with the City to ensure that all elements of the 58th Street Relief Sanitary Sewer design meet the City's expectations while minimizing construction costs.

The contract with the City will be managed by the project manager, Richard Nored, P.E.. All authorizations to perform work received from the City will be directed to and signed by Mr. Nored, P.E. as a Principal of the firm. Most firms cannot provide the availability of a Principal of the firm to work directly with clients, and this is a major advantage of working with HGE. Work on the project will begin with the first task as outlined in this proposal. Changes in scope and addition or deletion of tasks will be managed and tracked by Mr. Nored. Monthly progress reports will be prepared by Mr. Nored and will accompany the monthly billing statements.

HGE offers an extremely experienced project team for executing the 58th Street Relief Sanitary Sewer and By Pass Manhole design and construction management for the City. Experience is an invaluable asset, and members of our project team have developed numerous major sewer and relief systems similar to that proposed by the City of Springfield.

HGE's involvement on this project ensures that the City will not be faced with either training of inexperienced personnel or with construction problems that relate to inexperience in design. Our proposed team consists of civil and geotechnical engineers, surveyors, and construction observation personnel with extensive wastewater system experience. HGE pays particular attention to the costs of needed construction improvements. Overall, we will provide the City with complete services for the relief sewer project.

All work will be coordinated continuously with City of Springfield staff personnel. HGE will schedule periodic meetings for review by City representatives and will provide review copies of the design plans and specifications prior to formal submittals. Final plans will incorporate any requested modifications by the City Engineer and City staff.

Neighborhood meetings are anticipated to keep the public well informed and to assure neighborhood satisfaction of construction plans and the ultimate structures. HGE will be an active participant in all scheduled public hearings.

HGE proposes to conduct the work in a pre-design phase and a final engineering design phase, which will include construction plans and specifications, thoroughly coordinated with City of Springfield representatives. Detailed construction specifications will be prepared in conformance with the City of Springfield's standard Construction Specifications, 1994 Edition as amended, and by contractual special conditions.

HGE has extensive, recent experience with sanitary sewer and relief sewer installation, including many projects of similar scope and complexity.

2.6 Specific Project Performance

HGE understands what it takes to successfully complete the 58th Street Relief Sanitary Sewer Line & By Pass Manhole project. The key elements to the success of this important project are as follows:

- ✓ HGE will work closely with the City throughout the project. Regular reports on progress will be presented to City staff at regular meetings.
- ✓ During design, several review meetings are scheduled at various levels of completion to allow for staff review. Staff input will be incorporated into the project design.
- ✓ Detailed cost projections will be provided in the pre-design report, and again when final design is complete. HGE has the experience to gauge potential project cost as design evolves, ensuring that what is designed and bid on by contractors will result in construction awards within the budget.
- ✓ HGE will be comprehensive in our design approach.
- ✓ Our services will include obtaining needed approvals from all regulatory agencies for the project.
- ✓ The project team will remain the same throughout design and construction management. The same manager and engineers will see the project through from initial design to full operation.
- ✓ HGE anticipates the pre-design report to be complete within two months after initiation to proceed, and for project improvements to be designed, reviewed, and ready for bidding within nine months of notice to proceed, followed by a construction period of approximately five months. Construction can be expedited, dependent on the construction alternative selected.
- ✓ HGE is in close proximity to Springfield, and will be available for follow-up assistance to the City continuously after the project is completed.

2.7 Scope Of Work

HGE will provide all engineering services required for the construction of the 58th Street Relief Sanitary Sewer Line and By Pass Manhole project. Complete design and construction management services will be provided. All elements of the City's RFP will be included in our design and construction management services, which shall include the following:

Project Administration

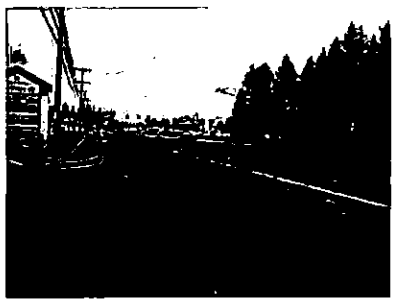
At project initiation, HGE will update the project schedule and attend a kickoff meeting with the City's project representatives. This meeting will review the purpose and scope of the project, and will discuss project schedule and outcomes in detail.

HGE's project manager will attend meetings with City staff recommendations at regular intervals throughout the life of the project. At the meetings, Mr. Nored will present updates on the project activities, cost, and schedule. Review meetings will be scheduled when the following milestones are reached:

- Pre-Design Report
- 30% completion of Plans, Specifications, and Cost Estimates.
- 60% completion of Plans, Specifications, and Cost Estimates.
- 90% completion of Plans, Specifications, and Cost Estimates.
- Final Design Documents.
- Invitation to Bids.
- Pre-Bid Conference.
- Notice to Proceed.
- Construction Completion.

HGE's project manager will monitor and control project costs and the schedule to ensure compliance with the approved plan. The proposed project schedule is provided below.

Project Schedule	Completion Date
City of Springfield to Initiate Services	March 21, 2011
Start-up / Concepts Meeting with Staff	March 23, 2011
Complete Location, Sizing Analysis and Comparative Cost Analysis and Present to City	May 12, 2011
Complete Field Data Collection and Base Development	June 9, 2011
30%Design and Estimated Cost Review	July 24, 2011
60% Design and Estimated Cost Review	August 31, 2011
90% Design and Estimated Cost Review	November 17, 2011
Complete Bid Documents to City	January 6, 2012
Invitation to Bid Advertisement	January 20, 2012
Pre-Bid Conference	January 27, 2012
Bid Opening	February 15, 2012
Notice to Proceed	June 11, 2012
Construction Complete	November 1, 2012



Task 1: Pre-Design Report

A pre-design report will be developed in conjunction with City staff representatives at the beginning of the design process. Investigation, data collection, and pre-design alternatives shall be performed in sufficient detail to determine sewer routing, permitting and easement needs, and project cost estimating for each option. Plans are to evaluate the original proposed routing, and Alternative # 1, with initial consideration of Alternative # 1A, to evaluate the potential to install the relief sewer in the BPA R/W, where construction costs would be minimized. Evaluation of this modified alternative will include discussions with the underlying property owners, and for BPA, to determine whether the routing could be made available. Our Proposal does include soils exploration of only two routing alternatives, so Alternative # 1A will only be pursued if easement acquisition appears to be readily available. Our Proposal does include auger borings in order to determine the depth to bedrock and groundwater, and adverse ground conditions that would influence design, construction and costs of the installation. Results of soils observations will be documented in a geotechnical engineering report prepared and stamped by an Oregon licensed Geotechnical Engineer, and rock classification will be in accordance with the City's Standard Specifications. Discussions will be held with the City's authorized representative prior to performing the soil exploration program, and testing/borings will be provided as necessary for the project to proceed under either of the Alternatives provided. Route location pre-design will include determination of recommended sewer grades, depths, required permits, bedrock and ground water levels, and cost estimates for each alternative routing, in order to determine the most economically feasible route for construction.

HGE will present the results of investigations, and a tentative sewer route recommendation to City staff. Taking into account input from City staff, a pre-design report will be prepared that address a recommended sewer routing, including a report of the background, investigations, data collection, pre-design tasks, cost estimates and the selected sewer route, with justifications and recommendations for that selection. Five copies of the completed report will be provided to the City of Springfield. HGE will also be available and prepared to present and/or assist the City Engineer with the project presentation to City Council. The presentation to the City Council will include graphics and materials necessary to justify the pre-design recommendations. Once approved by the City, the pre-design report will serve as the basis for final design of facility improvements.

Soils testing, interpretation of test results, and the geotechnical engineering report will be provided by PBS Engineering and Environmental (PBS), from their office in Eugene, Oregon.

Throughout HGE's involvement with this 58th Street Relief Sanitary Sewer project, the Project Manager will coordinate with property owners as necessary, and will attend public meetings and coordination meetings with other agencies and utility companies. All engineering work shall be

in accordance with the City of Springfield's Engineering Design Standards and Procedures, and Standard Construction Specifications.

Task 2: Field Data Collection

HGE will provide design topographic surveys for the limits of the 58th Street Relief Sanitary Sewer project, to include the following:

- Property and rights-of-way lines to ensure improvements are located within said lines, and where easement and right of way acquisition is involved, in adequate detail to write legal descriptions for acquisitions.
- Coordination with the City of Springfield for preliminary survey information.
- Set on-site vertical control based on NAVD '88'. Base benchmark datum will be noted on the construction plans. We will establish temporary bench marks every 500 feet for location and construction work. Temporary benchmark materials will be approved by the City prior to work being provided.
- HGE will request utility locates prior to surveying.
- HGE will field locate all public utilities as marked or from visible facilities, including utilities in abutting street right-of-ways. Rim and invert elevations will be located and shown on all storm and sanitary manholes, curb inlets, utility vaults and catch basins.
- We will show location, size, depth and operating pressure of water and gas mains, steam and other facilities as available from the operating authority.
- Locations to the nearest 0.1 foot will be provided at 50 foot intervals along the full length of the proposed sewer line.
- All trees 2" and larger in diameter, and having a tree canopy within 30 feet of the proposed construction will be located, and common names will be shown on Plans.
- All other above ground permanent man-made features (buildings, signs, posts, poles, landscaped areas, etc. within 15 feet on either side of the right-of-way or easement will be provided on Plans.
- It is understood that the City will supply mapping as needed for the project, such as 2008 digitized aerial maps and as built construction drawings. All engineering shall comply with the City of Springfield's Engineering Design Standards and Procedures Manual.
- Plans will be provided in electronic format , using City approved software, at a scale of 1" = 20 feet.
- Plans shall be provided in electronic format with signed and sealed vellum and paper copies provided to the City of Springfield for reproduction purposes. Electronic format will be compatible with City of Springfield Engineering Design Standards and Procedures Manual and will be coordinated with the City.

Task 3: Final Engineering Design

HGE will provide the following services during final engineering design:

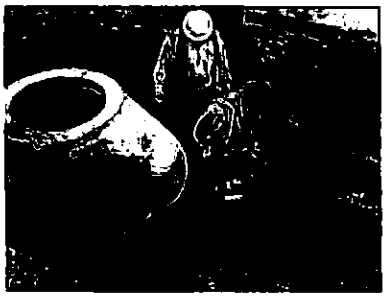
- Upon final selection of the relief sewer route, HGE shall prepare a detailed cost estimate, including permit requirements by the City, Lane County, and ODOT, etc. We will coordinate closely with the City in determining pipeline grades to meet the requirements of the Master Planning of sewers in the area. We will meet and discuss construction with all affected utilities in the selected route.
- When the City has approved the pipeline sizing, route, and cost estimates, etc., Construction drawings and bid packages, easement appraisals and acquisition shall begin, and applications for permits will begin.
- Preparation of final plans and specifications for bidding purposes, including components that provide for ease of operation and maintenance, and compatibility with existing facilities in Springfield, and that are cost effective. Plans and profiles will be provided in a format acceptable to the City of Springfield.
- HGE will prepare 30%, 60%, and 90% completed construction contract plans and specifications, with cost estimates, and hold 30%, 60%, and 90% design review meetings with City staff.
- HGE will apply for and obtain permitting for utilization of ODOT, Lane County, City of Springfield, and BPA rights of way, if necessary.
- City of Springfield staff will assist in determining pipeline grades to meet the requirements of the Master Planning of sewers in the area. HGE will determine sewer hookup locations if the gravity sewer replacement project is authorized as a portion of this project.
- Contract documents, plans and specifications will comply with City of Springfield standards and DEQ requirements for sanitary facilities.
- When design is determined to be 100% completed by the City of Springfield, including full compliance with permit conditions, final cost estimates shall prepared and presented to City staff.
- HGE will organize, execute and participate in a public relations process associated with the project. We will prepare plan view designs for public review early in the design process. Our estimates anticipate that HGE will field stake an alternative routing of the sewer, in the field, to present to property owners showing the location of construction.
- HGE has provided time in our proposals, and anticipates up to two general public meetings to receive public testimony on the sewer design.
- HGE anticipates meetings with individual property owners to properly coordinate easement needs with affected property owners.
- It is understood that if the City elects to delay, terminate, or otherwise stop the contract, HGE will deliver to the City all

records pertaining to the work. All work shall be attested and submitted in detail to the City. Such records shall include, but not be limited to the following: 1) construction drawing transparencies, from which clearly legible prints can be produced, 2) electronic construction drawings on disc in AutoCAD format consistent with the City's Design Manual requirements, and other documents related to the project.

Task 4: Easement Acquisition

HGE will employ a real estate specialist satisfactory to City Engineering staff to acquire sewer easements in locations outside of existing rights of way. HGE and the real estate specialist should provide the following:

- Work with City Engineering staff regarding communications and interactions with City residents or property owners.
- Coordinate with City Survey staff regarding preparation of easement documents.
- All legal descriptions and maps will be prepared, as necessary, to provide for easement acquisition. Legal descriptions will be prepared on a City supplied standard easement form, and a map will be included in the easement document.
- A certified and City approved property appraiser will be employed to establish the value of the proposed acquisition area.
- Easement acquisition will be coordinated with a title company. HGE will order and review title reports, and setup closing at the title company. Title reports and closing costs will be at City expense.
- HGE staff will make the compensation offer (with prior City approval) for the easement from the property owners, and report and coordinate same with City staff.
- HGE staff will record acquired easements and present executed documents to the City. Recording costs will be at City expense.



Brookings sanitary sewer and water improvements - compaction around new manhole

Task 5: Permitting

HGE will identify all permits required for construction of the 58th Street Relief Sanitary Sewer Line. Permit applications will also be prepared and approvals obtained as necessary.

Task 6: Bid Document Services

HGE's bid documents shall include complete bid packages and contractual documents suitable for bidding (including but not limited to drawings, special provisions, and bid proposals) of the project. All work shall be in accordance with applicable State laws, City codes, City of Springfield Standard Construction Specifications, 1994 Edition as amended, and as modified by contractual special conditions. Bid document services will include:

- Preparation of bid documents in the City's bidding format.
- Utilization of Springfield standard bid document forms.

- Securing final approvals from the City of Springfield for bidding.
- Printing and copying 20 sets of final plans and specifications for public bidding.
- Delivery of one electronic set of project drawings and specifications in PDF format for bidding purposes.
- Notification to utility companies and affected parties of the pre-bid meeting.
- Attendance and recording of the pre-bid meeting.
- Answering any technical questions and concerns during bidding.
- Preparation of any required addenda during bidding.
- Provide recommendations on bid award.
- It is understood that the City of Springfield will advertise for bids in the Eugene Register Guard and the DJC, will hold a bid opening, check bids and bid bonds, award and process the contract, and send the Notice to Proceed to the Contractor.
- It is also understood that the City of Springfield will pay all costs of advertising in the selected newspapers.

Coos Bay pump station # 7

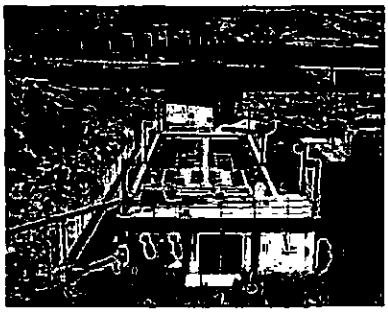
Task 7: Construction Administration Engineering Services

HGE will be responsible for the design of the project. We will also be responsible for the Project oversight, working at the direction of the City Project Manager to assure the successful construction and completion of the project. HGE will also provide general engineering review of the work to assure conformance with the design. We will provide construction staking, daily inspections during construction of the project, measurements for payment of pay quantities, a survey of the final construction, preparation of as-built drawings, and a final attest to the constructed project. Work shall include:

- Coordination with property owners, contractors, subcontractors, utility companies, ODOT, LTD, School District, USPS, and consulting engineering firms during preconstruction, construction and final project documentation.
- Preparation of format for preconstruction conference, notification of all parties, coordination and chair of the pre-construction meeting with utility companies, contractor, and affected agencies. Provide typewritten record of subjects and decisions reached at preconstruction conference.
- Promptly informing the City Project Manager when issues develop with any parties described above.
- Provide engineering construction monitoring, supervision of project representative, and administration of project, including a weekly site visitation of construction, and including meetings with City and Contractor.
- Review and monitor temporary and permanent traffic control.
- Preparation of typewritten reports of progress, including daily inspectors diary and engineer's visits with City staff during visitations.
- Review and approval of all shop drawings and contractor submittals.
- Negotiation and preparation of all change orders and

supplemental agreements for approval by the City. All change orders shall be approved by the City Engineer and signed by both the City Engineer and the Project Manager.

- Maintenance of daily materials and progress listing by project representative, with contractor's daily consent for quantities on project. Assure that pay quantities are measured and documented prior to backfill.
- Review construction and material testing results for conformance with Contract Documents.
- Preparation of final pay quantities, progress payments and final payment schedule to include all work provided by contractor.
- Provide a final acceptance inspection to ensure general conformance with the intent of the contract documents. Certification to the City that the project was constructed in accordance with the approved plans and specifications.
- Distribute all required paperwork to assure that documentation is complete for the City of Springfield.



Biggs treatment plant

Task 8: Construction Staking and Inspections

HGE's services in this task will consist of:

- Provide project representative on-site on a daily basis.
- Filming of a pre-construction video of the construction site.
- Provide all construction surveying and staking required for construction of the project in accordance with plans and specifications.
- Monitor the contractor's schedule and legal documents.
- Order and direct construction material testing.
- Provide daily and weekly inspection reports on construction activities.
- Provide daily pay quantities on unit price portions of project, and secure Contractor's approvals of daily pay quantities, before backfill.
- Provide survey of final construction.

Task 9: Post Construction

HGE's activities in the task will consist of:

- Maintenance of quality as-built records.
- Deliver to the City as-built drawings and acceptance documents attesting to the construction and documentation of project, including necessary documentation from applicable governmental agencies. As-Builts in hard copy transparencies that will produce clearly legible prints and electronic files shall conform to requirements in the City's Design Manual. Copies will be furnished to the City of Springfield.
- Submission of all final project records to the City at project completion, including copies of all laboratory and field test reports in certified form, inspection diaries and other documents relating to the project. Project records shall be presented in a neat,

logical, and orderly manner and shall include an index in both hard copy and in a searchable electronic format acceptable to the City.

- HGE will supply other services related to the project as requested by the City Engineer. It is understood that services such as redesign after final design, or other services that are not anticipated as part of the work scope shall be eligible for payment beyond and outside of the not to exceed limit for this contract, as approved by the City Engineer.

2.8 Estimate of Hours and Costs

Garibaldi aeration settling tanks

A project loading chart, a detailed breakdown of hourly costs for the principal participants involved and subcontract costs are provided in the following spreadsheet. Charges to the project will be billed on a time-and-materials basis for a not-to-exceed cost, based on our 2011 Standard Hourly Rate Schedule which is provided.

The advantages to an alternate routing for the 58th Street Relief Sanitary Sewer are many, including depth of excavation, available rights-of-way, and the potential for little or no R/W acquisition. If Alternate 1-A appears feasible after initial discussions with BPA and existing property owners, we will obtain a local certified appraiser to work with the property owners in acquiring an easement. The need for easements with the alternates described are minimal, and we have assumed that acquisition will be minimal in our Proposal.

2.9 Contract Format

The Independent Contractor Agreement provided in the Request for Proposals by the City of Springfield for Engineering Services for Scoping, Design and Installation of the 58th Street Relief Sanitary Sewer Line & Bypass Manhole (Project P21046) is acceptable to HGE. We are prepared to execute the agreement including the terms and provisions of this Proposal.

HGE INC., ARCHITECTS, ENGINEERS, SURVEYORS, PLANNERS

ESTIMATED HOURS AND COST

City of Springfield

58th Street Relief Sewer and By Pass Manhole

Standard Hourly Rates are updated on January 1st of each year.

Reimbursable Expenses: at cost plus 10% handling.

Task	Description of Services	Rate	Principal Engineer	Project Manager / Senior Engineer	Senior Engineering Designer	Project Coordinator	Survey Crew (2 man)	Project Surveyor	Clerical	Expenses / Subconsultants	Subtotal
			$126.00	*$114.00*	*$114.00*	*$92.00*	*$147.00*	*$92.00*	*$52.00*		
	Task 1 - Pre-Design Report										
1-1	Site Investigation / Kick-off Meeting / Research / Acquire City Aerials	Hours	6	6	4	8					24
		Cost	$750	$684	$456	$736					$2,626
1-2	Easement and Routing Investigations	Hours	16					8			24
		Cost	$2,000					$736			$2,736
1-3	Geotechnical Exploration and Report 12 Borings	Hours									0
		Cost								$26,800	$26,800
1-4	Analysis of Alternatives	Hours	8	32		16	12	4			72
		Cost	$1,000	$3,648		$1,472	$1,764	$368			$8,252
1-5	Identification of Permits & Agency Consultations	Hours		12		12					24
		Cost		$1,368		$1,104					$2,472
1-6	Determine Easement Needs	Hours	4	8				4			16
		Cost	$500	$912				$368			$1,780
1-7	Preliminary Cost Estimates	Hours	8	12	8						28
		Cost	$1,000	$1,368	$912						$3,280
1-8	Meeting with City Staff to Address Findings	Hours	4	4							8
		Cost	$500	$456							$956
1-9	Pre-Design Report (6 Copies)	Hours	8	32					24		64
		Cost	$1,000	$3,648					$1,248	$150	$6,046
										Task 1 TOTAL=	**$54,948**
	Task 2 - Field Data Collection										
2-1	Kick-off Meeting with City Surveyor	Hours						4			4
		Cost						$368.00			$368
2-2	Surveying - Vertical and Horizontal Property Location	Hours					140	38			178
		Cost					$20,580	$3,496			$24,076
2-3	Topographical Drawing Submittal	Hours	8					120			128
		Cost	$1,000					$11,040			$12,040
										Task 2 TOTAL=	**$36,484**

HGE INC., ARCHITECTS, ENGINEERS, SURVEYORS, PLANNERS

Task	Description of Services	Rate	Principal Engineer	Project Manager / Senior Engineer	Senior Engineering Designer	Project Coordinator	Survey Crew (2 man)	Project Surveyor	Clerical	Expenses / Subconsultants	Subtotal
			$126.00	*$114.00*	*$114.00*	*$92.00*	*$147.00*	*$92.00*	*$52.00*		
	Task 3 - Design										
3-1	30% Design Plan Preparation / Cost Estimating / Meetings	Hours	32	32	88	224					376
		Cost	$4,000	$3,648	$10,032	$20,608					$38,288
3-2	60% Design / Meetings / Incorporating City Comments from 30% Plans	Hours	16	24	80	160					280
		Cost	$2,000	$2,736	$9,120	$14,720					$28,576
3-3	90% Design / Meeting Incorporating City Comments from 60% Plans / Cost Estimating	Hours	16	16	32	80					144
		Cost	$2,000	$1,824	$3,648	$7,360					$14,832
3-4	Final Design and Cost Estimate	Hours	12	16		16					44
		Cost	$1,500	$1,824		$1,472					$4,796
3-5	Public Meetings and Neighborhood Meetings	Hours	12	8		8					28
		Cost	$1,500	$912		$736					$3,148
										Task 3 TOTAL=	$89,640
	Task 4 - Easement and R/W Acquisition										
4-1	Prepare Maps and Local Descriptions	Hours	2					12			14
		Cost	$250					$1,104			$1,354
4-2	City Approved Property Appraisal for Values - Allowance	Hours									
		Cost									$15,000
4-3	Order and Review Title Reports	Hours			4						4
		Cost			$456					$1,500	$1,956
4-4	Compensation Offer to Property Owners after Approval from City	Hours	2		8				8		18
		Cost	$250		$912				$416		$1,578
										Task 4 TOTAL=	$19,888
	Task 5 - Permitting										
5-1	ODOT Permit	Hours	4	16	8	8			4		40
		Cost	$500	$1,824	$912	$736			$208		$4,180
5-2	Lane County Facility Permit	Hours	2	4		4			2		12
		Cost	$250	$456		$368			$104		$1,178
5-3	DSL / COE Permit	Hours	2	4		8			2		16
		Cost	$250	$456		$736			$104		$1,546
										Task 5 TOTAL=	$6,904

HGE INC., ARCHITECTS, ENGINEERS, SURVEYORS, PLANNERS

Task	Description of Services	Rate	Principal Engineer	Project Manager / Senior Engineer	Senior Engineering Designer	Project Coordinator	Survey Crew (2 man)	Project Surveyor	Clerical	Expenses / Subconsultants	Subtotal
			$125.00	*$114.00*	*$114.00*	*$92.00*	*$147.00*	*$92.00*	*$52.00*		
	Task 6 - Bid Document Services										
6-1	Bid Documents and Bid Package	Hours	4		24				24		52
		Cost	$500		$2,736				$1,248		$4,484
6-2	Bidding Assistance	Hours	2		6				10		20
		Cost	$250		$912				$520		$1,682
										Task 6 TOTAL=	$6,166
	Task 7 - Construction Administration										
7-1	Pre-Bid Conference	Hours	4						2		6
		Cost	$500						$104		$604
7-2	Preconstruction Video of Site	Hours				4					4
		Cost				$368					$368
7-3	Construction Monitoring, Weekly Site Meetings	Hours			32				16		48
		Cost			$3,648				$832		$4,480
7-4	Shop Drawing Reviews	Hours			12				1		13
		Cost			$1,368				$52		$1,420
7-5	Final Acceptance Inspection	Hours			8				2		10
		Cost			$912				$104		$1,016
										Task 7 TOTAL=	$7,888
	Task 8 - Construction Staking and Inspection										
8-1	Construction Staking	Hours					52	20			72
		Cost					$7,644	$1,840			$9,484
8-2	Construction Observation - 49 days at 4 hours/day	Hours								257	257
		Cost								$21,403	$21,403
										Task 8 TOTAL=	$30,887
	Task 9 - Post Construction										
9-1	As-Built Survey	Hours					8	2			10
		Cost					$1,176	$184			$1,360
9-2	As-Constructed Drawings	Hours	1		2	32					35
		Cost	$125		$228	$2,944				$100	$3,397
9-3	Project Records and Documentation	Hours			2	8			4		14
		Cost			$228	$736			$208		$1,172
										Task 9 TOTAL=	$5,929

Total Not to Exceed **$258,734**

HGE INC., ARCHITECTS, ENGINEERS, SURVEYORS & PLANNERS

STANDARD HOURLY RATE SCHEDULE

Effective January 1, 2011

Principal/Manager	$125.00
Principal Surveyor	$ 92.00
Senior Engineer	$119.00
Project Manager	$114.00
Project Engineer	$103.00
Electrical Engineer	$103.00
Project Coordinator	$ 92.00
Designer Technician	$ 82.00
Engineering Technician	$ 82.00
Draftsman Designer	$ 66.00
Project Surveyor	$ 92.00
Construction Observer	$ 77.00
Crew Chief	$ 74.00
2-Man Field Crew	$147.00
3-Man Field Crew	$180.00
4-Man Field Crew	$227.00
Clerical	$ 52.00
Principal Architect	$102.00
Senior Architect/Manager	$ 92.00
Project Architect	$ 81.00
Architect Intern	$ 76.00
Landscape Designer	$ 76.00
Architect Technician	$ 73.00
RTK-GPS	$ 22.00

Standard hourly rate schedule to be updated on January 1st of each year.

Reimbursable Expenses:

Printing, reproduction, and miscellaneous expenses - at cost plus 10% for handling. Mileage - at $0.45

PBS | Engineering + Environmental

February 23, 2011

Mr. Richard Nored, PE
HGE, Inc.
375 Park Avenue
Coos Bay, Oregon 97420

Re: Proposal for Geotechnical Investigation and Construction Monitoring Services
City of Springfield – 58th Street Relief Sanitary Sewer Line & Bypass Manhole (Project # P21046)
PBS Proposal No. PR72965.000

Dear Mr. Nored:

In accordance with your request, PBS Engineering + Environmental (PBS) is pleased to submit this proposal for geotechnical services related to a proposed construction of approximately 4,900 lineal feet of sanitary sewer pipeline to be located either along 58th Street or in an alternate route (BPA right-of-way or in 56th Street) in Springfield, Oregon (see Figure 1). We understand that the 58th Street route pipeline would be constructed at an average depth of 20 feet deep. The alternate route would decrease the average depth to approximately 15 feet deep. Our proposal is in support of your proposal to the City of Springfield in response to their Request for Proposal (Project P21046) dated January 2011. This proposal presents our understanding of the project, approach, scope of services, compensation, and schedule for completing the project.

PROJECT UNDERSTANDING AND APPROACH

PBS' approach to this investigation will be to complete up to a total of 20 borings along the length of the proposed routes (approximately 1 boring for every 500 feet). We will investigate the route shown in the RFP along 58th Street and Main Street, as well as an alternate route. One possible alternate route would follow Thurston Road from the round-about at 58th Street, head south on 56th Street, east on A street, and south on 54th Street. The second possible alternative would follow Thurston Road, head south along the BPA ROW, east on A Street, and south on 54th Street. The BPA route would require permission from BPA to perform the work within their ROW. We will place our borings in public ROW areas. The crossing of Oregon 126 along the alternative routes would require horizontal drilling for the construction of the pipeline. Based on our review of the proposed routes, we anticipate being able to provide 2-way traffic flow, which will minimize the need for flagging personnel. We will provide a traffic control plan and traffic control devices during the completion of our field work. Our borings will extend to approximately 2 feet below the proposed depth of the sewer line at each boring location which ranges from 10 feet at the start of the project, down to 20 feet at Main Street. For the route shown in the RFP, we are assuming an average of 20-foot-deep borings (200 total feet). For the proposed alternate route along either the BPA ROW or down 56th Street, we are assuming an average of 15-foot-deep borings (150 total feet). We anticipate the field work for both routes will require an estimated five days to complete the borings. After the completion of the borings, laboratory testing, engineering analysis, and the report is delivered to you, we will provide 8 hours of consultation during your design to answer questions and complete the drawing and specification review as it relates to our understanding of subsurface conditions along the alignments.

A local PBS field technician from our Eugene office will provide construction observation services for the pipeline project during construction. Our lead field technician will also make several visits to the site. We will provide written field reports of our construction observations and recommendations for your records and distribution.

TEAM MEMBER QUALIFICATIONS

PBS' team for this project has considerable experience in providing geotechnical engineering services for public utility projects. A brief description of the key project team members is given as follows:

Rick Thrall, PE, GE, Principal Geotechnical Engineer
Mr. Thrall will be responsible for quality assurance and quality control for the project. Mr. Thrall has over 25 years of experience involving soil mechanics, utility design, static and dynamic seismic loading analysis, subsurface analysis in support of various municipal, infrastructures, industrial, and commercial projects. He has provided project management on the geotechnical work for several similar projects including the Franklin Boulevard Interceptor in Springfield, Oregon, the West Side Interceptor sewer line in Lebanon, Oregon (3,650 feet), and the Fanno Pump Station and Pressure Line in Portland, Oregon (16,500 feet). He has completed projects in nearly every western county in Oregon, Washington, and northern California for a variety of public agency and private sector clients. Mr. Thrall is a Licensed Professional Engineer in the States of Oregon and Washington; and is a Registered Geotechnical Engineer in Oregon.

Peter Hughes, RG, Project Geologist
Mr. Hughes has over 5 years' experience in the field of geology and performs subsurface explorations for the geotechnical engineering department at PBS. Mr. Hughes has been involved in geotechnical engineering explorations, subsurface explorations, geological map investigations, and writing geological reports. He performs site reconnaissance, sampling, and logging of subsurface soil borings, rock cores, and test pits, and is experienced in performing infiltration testing. Mr. Hughes' construction observation experience includes installation and testing of micropile, soil nail, and tieback designs. He supervises utility and structural backfill, grading, and excavations as well as drilled shaft inspections and pile driving. His skills have been applied to numerous utility, roadway, and public works projects across Oregon.

Ed Morrison, Lead Construction Monitor
Mr. Morrison plays a key role in construction and site observation for PBS' geotechnical projects. His experience includes significant grading (excavating, trenching, backfilling, etc.), building pads, roadways, driven grout piles, drilled shaft piles, and soldier piles. Mr. Morrison has specific expertise and is licensed in the testing of compaction, and has current experience in laboratory analysis of moisture content, p200s, and mechanical grain sizes.

David (DJ) Burrows, Construction Monitor
Since joining PBS in late 2007, Mr. Burrows has been involved in both the geotechnical engineering and environmental health fields. His responsibilities include on-site construction inspection services, environmental health monitoring, and reporting assistance. While working as an Industrial Hygienist for PBS, Mr. Burrows has completed his Bachelor of Science degree in Environmental Engineering. His in-depth knowledge of both field operations and environmental science has made him a valuable member of the PBS team.

KEY PROJECT EXPERIENCE

- **Willow Lake Treatment Plant and Pipelines (Salem, Oregon)**
  PBS provided geotechnical engineering and construction observation and testing services for the upgrades to the City of Salem Willow Lake Treatment Plant and related pipelines. The treatment plant upgrades included a several thousand feet of large-diameter pipelines, new headworks building, and two new clarifiers. PBS completed a long-term, two-well pump test to study the hydrogeologic characteristics of the aquifer. Shoring and dewatering criteria for the 50-foot-deep excavation for the new headwork building next to Willamette River was provided. In addition, several foundation options like shallow, over-excavation and replacement, piles, and stone columns were studied.

- **Garibaldi Wastewater Treatment Plant and Pipeline (Garibaldi, Oregon)**
  PBS completed the geotechnical investigation for a wastewater treatment plant upgrade project for the City of Garibaldi, Oregon. The treatment plant is being upgraded to meet current load demands and includes the installation of new treatment facilities and extension of an outfall pipe further into Tillamook Bay. PBS provided recommendations for pile foundations for site structures, pavement design sections, and a specialized anchoring system to hold down the outfall pipe in the bay.

- **Seal Rock Water System Improvements (Seal Rock, Oregon)**
  PBS provided assistance to the Dyer Partnership with geotechnical engineering evaluation for the proposed improvements to the Water Transmission System for the Seal Rock Water District, in Seal Rock, Oregon. The project consisted of two waterlines below local creek systems, a new waterline near three tidal creek crossings, and a new emergency operations building. PBS reviewed each site's general geology and conducted site reconnaissance and field explorations. Based on our analysis, recommendations were provided for foundation design, grading, seismic design criteria, temporary shoring, and dewatering. Construction recommendations were also provided.

REFERENCES

- **Coos County Public Works**
  Mr. John Rowe
  1281 W. Central, Coquille, OR 97423
  (541) 396-3121
  Project: On-Call Geotechnical Services Contract Since 2005

- **University of Oregon**
  Mr. Doug Brooke
  1276 University of Oregon, Eugene, OR 97403
  (541) 346-2272
  Project: Various Geologic and Environmental Services for the Arena Construction Project

SCOPE OF SERVICES

Geotechnical Investigation

PBS proposes the following specific scope of services for the geotechnical investigation based on the project description and anticipated subsurface conditions.

1. **Geologic Site Reconnaissance and Literature Review:** Relevant, readily-available, geologic, and soils maps of the site area will be reviewed for information regarding geologic conditions and hazards at or near the site. We will complete a site reconnaissance along the routes to determine specific locations for the borings.

2. **Subsurface Exploration:** After determining the locations of all borings, we will prepare a traffic control plan for submittal and approval by the City. After approval of the plan, we will mobilize to the site to complete the field investigation and sample collection. The proposed explorations will consist of up to 20 borings drilled at approximately 500-foot intervals along the possible routes for the pipeline alignments. The assumed depth of each boring will range between 10 and 25 feet below the ground surface (bgs). The borings will be logged, groundwater observed, and representative samples will be collected by one of our registered geologists. We propose to drill the borings using mud-rotary drilling methods due to the expected dense soil conditions. In-situ standard penetration tests and samples will be performed at 5-foot intervals. If during explorations it is deemed necessary by PBS, we will obtain undisturbed samples by the use of a Shelby Tube sampler.

3. **Soils Testing:** Laboratory tests will include natural moisture contents on selected soil samples. Selected samples may be analyzed for sieve analysis to support the liquefaction studies if necessary.

4. **Geotechnical Engineering Studies:** The data collected during the subsurface exploration, literature research, and testing will be analyzed so that specific geotechnical recommendations can be developed for the proposed expansion including an assessment of the behavior under the design seismic shaking.

An interpreted geological/geotechnical profile beneath the site will be developed from information collected during the explorations and testing performed for this study.

5. **Report Preparation:** Subsequent to construction monitoring, a report will be prepared that will present the results of our work and include information as it relates to the following:

   - Boring logs
   - Laboratory test results
   - Groundwater conditions
   - Geological map and cross section along the pipeline
   - Subgrade preparation
   - IBC 2009 seismic design parameters
   - Foundation support options
   - Pavement design for the re-constructed road
   - Construction recommendations

Existing subsurface information will be incorporated into our assessment. Recommendations for final geotechnical studies will be made based on the results of our studies, details of the proposed development, and existing information.

COMPENSATION

PBS proposes to perform the scope of services described above on a time-and-material basis. Our estimated fee breakdown for the proposed services is as follows:

Geotechnical Investigation Services	
PBS Labor	$11,080.00
Laboratory Testing	1,226.40
Reimbursables	1,026.65
Subcontractor (Traffic Control & Flagging)	2,484.00
Subcontractor (Drilling)	15,467.50
INVESTIGATION TOTAL (Estimated T&M)	**$31,384.55**
Construction Monitoring Services	
PBS Labor (Estimated 49 visits)	$19,950.00
Reimbursables	1,452.75
CONSTRUCTION TOTAL (Estimated T&M)	**$21,402.75**
TOTAL (Estimated T&M)	**$52,787.30**

Please see the attached Cost Breakdown sheet for hourly rates and estimated hours for each staff member.

If site conditions are out of the ordinary or accessibility to the site is restricted, additional costs may be incurred. PBS will inform the Client of any such conditions prior to exceeding the proposed fee estimate.

This fee assumes that any modifications to the scope of services described above or work following our submission of the final report (such as, review of construction plans and specifications, construction observations, meetings, etc.), will be considered additional work. Additional work will be billed at the hourly rates, as indicated on the attached General Terms and Conditions for Professional Services (Rev. 8/2008).

SCHEDULE

PBS is ready to proceed as soon as we obtain your written authorization. We anticipate that drilling can start two to three weeks from the notice to proceed. We estimate that the field explorations and reconnaissance will require approximately five days in the field. We anticipate that the completed report can be made available within three weeks following the field investigation.

APPROVAL

Please indicate acceptance of this Agreement by returning a signed copy of this proposal to our office. If you issue another form of authorizing document, please incorporate/attach this proposal.

PBS appreciates this opportunity to submit our proposal to you and looks forward to your favorable consideration. If you have any questions or wish to further discuss the scope of services or compensation, please contact us at 360.690.4331.

Sincerely,
PBS Engineering + Environmental

Rick Thrall, PE, GE
Senior Geotechnical Engineer

ACCEPTED BY:

_____
Signature

_____
Name (Please Print)

_____
Title Date

Attachments: General Terms and Conditions for Professional Services (Rev. 8/2008)
Cost Estimate Worksheet

HGE INC

ARCHITECTS
ENGINEERS
SURVEYORS
PLANNERS

SECTION 3: PROJECT TEAM AND MANAGEMENT

3.1 Project Management

The project team consists of a manager and technical experts. HGE's approach will be to have the manager focus on managing the process and the technical experts develop the solutions that provide the best fit for Springfield.

The Project Manager will be responsible for delivering a successful project to the City. This will be accomplished by adhering to the established budget and schedule, developing a partnering relationship with the City, and meeting the City's expectations. The Project Manager assigned to the project has a sterling reputation for delivering projects to clients on time and within budget, regardless of the project's complexity or issues. He is also known for keeping the client well informed and doing whatever it takes, including going the extra mile, to ensure the successful completion of a project.

A project schedule will be prepared that presents HGE's proposed schedule for the project related tasks based on the scope of work and the schedule desired by the City. The proposed schedule, presented in the proposal, will be updated at receipt of notice to proceed and will be submitted to the City for approval. HGE will submit an updated project schedule to the City during monthly project progress meetings where the status of each task and associated subtasks will be reviewed. Internally, HGE's Project Manager will meet regularly with the project team to review progress with regard to schedule.

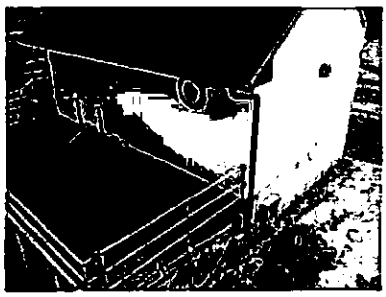
HGE's Project Manager will set up a project budget, based on the scope of work and cost, with our accounting department at project initiation. The budget will utilize a work breakdown structure format so that each task has its own budget. As the work progresses on each task, the manager will compare percent complete with the percent billed. Monthly billings will outline the work effort for the billing period, by task and subtask.

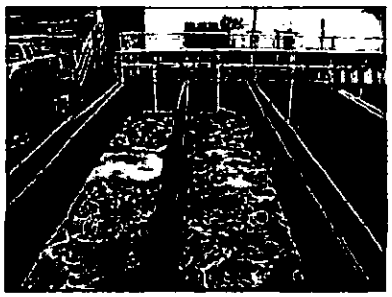
During construction, contractor's pay requests will be compared to their construction bid documents and the required initial schedule of values. Pay requests will also be reviewed and evaluated based on HGE's daily inspection reports.

HGE believes the need for clear and open communication on this project is paramount. Maintaining communication channels during the project will primarily be the responsibility of HGE's Project Manager. Every week during the life of the project, HGE's Project Manager will email to the City a brief summary of the project progress for the week and work planned for the following two weeks. These status reports will establish a project record and help the City track the progress of the project as well as how the upcoming project activities may affect other City projects.

HGE's QA/QC program monitors projects for all aspects of quality including, ensuring designs are cost effective and in compliance with applicable laws and regulations..

Oakland wastewater treatment project photos:





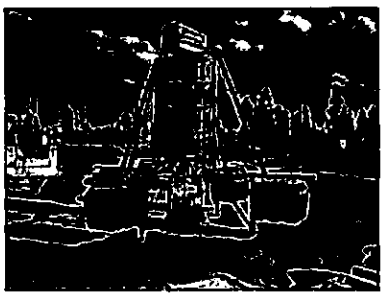
HGE's Project Manager and Inspector will meet regularly with representatives of the Contractor and the City to ensure that any construction field issues are addressed in a timely manner, thereby preventing any unnecessary construction delays.

3.2 Organization And Staffing

Joseph four-cell aerated lagoon

The proposed project team members are presented below. Their resumes are provided at the end of this Section 3.

Key Personnel	Role	Years of Experience
Richard D. Nored, P.E., P.L.S.	Project Manager	35
William M. Pavlich, P.E.	Senior Project Engineer	14
Stephen R. Cox	Senior Project Coordinator	35
James R. Parmenter, E.I.T.	Project Coordinator	6
Russ S. Dodge, P.L.S.	Field Services Director	25
PBS Environmental & Engineering	Geotechnical and Inspection	



One of La Pine's lagoon aerators being installed

Richard D. Nored, P.E., is a Project Manager of HGE. His expertise is in project management. Since 1968, Mr. Nored has been involved in the development of sanitary sewer systems, wastewater treatment facilities, and pump stations throughout Oregon. He will also provide overall project review and quality assurance, and will be the primary contact with the City of Springfield.

William M. Pavlich, P.E., is a Senior Project Engineer at HGE. His expertise is in the planning and design of municipal water and wastewater improvement projects. Mr. Pavlich has considerable municipal water and wastewater system modeling experience in Oregon. He will perform flow data analysis and modeling, and will develop the required pre-design report.

Stephen R. Cox is a Senior Project Coordinator at HGE. His expertise is in water and wastewater system design. Specifically, Mr. Cox has extensive experience with HGE on major wastewater system projects. He will provide design and construction management.

James R. Parmenter, E.I.T., Project Coordinator, has 6 years of municipal design experience. His recent experience includes design of major portions of Coos Bay Pump Station #10; a wastewater collection project for the City of Powers south of the Coquille River; and sewer collection system improvements for the Blackstone Subdivision in Yachats, and the Raechel Estates Subdivision in Lakeside. Recent municipal water improvements include a major rehabilitation of the City of Scott Mills water system, and the Buell-Red Prairie Water Treatment Plant.

Russ S. Dodge, P.L.S., is the Principal Surveyor at HGE. He provides survey data for virtually all firm operations. Mr. Dodge has experience in design surveys, hydrographic surveys, and construction staking. He will provide project surveying.

PBS Engineering and Environmental has offices throughout Oregon, Washington, and Idaho. PBS will perform geotechnical engineering and inspection for the 58th Street Relief Sanitary Sewer Line and Bypass Manhole.

Lakeside treatment plant

Garibaldi wastewater treatment plant under construction

The firm's Geotechnical Engineer Group offers several of the most experienced geotechnical experts in the Northwest who have worked on hundreds of significant projects throughout Washington and Oregon.

Powers wastewater rehabilitation project:

HGE INC

ARCHITECTS
ENGINEERS
SURVEYORS
PLANNERS

EXPERIENCE SUMMARY:
Mr. Nored is President of HGE Inc., Architects, Engineers, Surveyors, & Planners, and functions as a principal-in-charge for engineering projects assigned to our firm. Since 1968 he has been involved in the development of water distribution systems, water and wastewater treatment facilities, reservoirs, sanitary sewer systems, and pump stations throughout the state of Oregon and into Washington. He has developed and assisted in the development of numerous area-wide water and wastewater planning programs, including County-wide plans for Douglas, Coos, and Lincoln Counties, and in area-wide projects for the Coos Bay Urban Area and the Klamath Falls-South Suburban area.

EDUCATION:
B.S.C.E., Oregon State University, 1965

Graduate Studies, Oregon State University

PROFESSIONAL AFFILIATIONS:
Professional Engineers of Oregon (Past Pres. of Southwestern Chapter)
National Society of Professional Engineers
American Society of Civil Engineers
American Public Works Association

RICHARD D. NORED, P.E., P.L.S.

Project Manager / Principal Engineer

PROJECT EXPERIENCE:

Richard Nored has more than 30 years of experience working with communities in Oregon on both wastewater and water treatment projects.

Wastewater

His two most recent wastewater projects of note are:

Wastewater Collection and Treatment System, Sisters, Oregon: Principal-in-Charge / Project Manager for the design and construction of the Sisters, Oregon, wastewater collection and treatment system. The community of 1,050 was without a public wastewater system and was served by private septic facilities. Sisters was the largest non-sewered community in Oregon, and this was a major financial undertaking. The project was completed in 2002, on time and within budget ($14.1 million). Sixty percent of the project costs were received in grant funds. The treatment plant utilized aerated lagoons for treatment and storage, and effluent reuse on forest land. Plans have been developed for expansion of the reuse site onto adjacent land purchased by the City. No discharge to any water body is provided. Richard has functioned as City Engineer for Sisters for more than 30 years.

La Pine Wastewater System Improvements, La Pine, Oregon: Principal-in-Charge / Project Manager for the design and construction of the Wastewater System Improvement Project for the La Pine Special Sewer District. The La Pine collection and treatment system is a hybrid design with elements of septic tank effluent pumps (STEP) and septic tank effluent gravity (STEG) systems. HGE designed a tie-in to the nearby Wickiup Junction Rural Service district, and has recently completed an upgrade doubling the capacity of the District's wastewater treatment plant and land reuse system. The La Pine treatment plant utilizes wind powered aerated lagoons, and the effluent is discharged to land irrigation with a center pivot irrigation system. Richard has functioned as District Engineer for the La Pine Special Sewer District for many years.

Wastewater Treatment Facility, Garibaldi, Oregon: Principal-in-Charge/Project Manager for the design and construction of the Garibaldi Sequencing Batch Reactor (SBR) wastewater treatment plant. Garibaldi is a community of 895 people that needed a cost-effective approach to wastewater treatment, under an MAO issued by the Oregon Department of Environmental Quality. The SBR was chosen for space requirements and to minimize the expense of construction for a quality treatment system. Mr. Nored worked closely with the City in public meetings to develop local funding for the project, and was a key factor in securing grant monies for construction. Construction of the wastewater treatment system was completed on-time, under budget, and has easily met treatment requirements of their NPDES discharge permit. The project included an ocean outfall into Tillamook Bay.

Grant funds remained after the treatment plant construction was complete, and Mr. Nored worked to allow grant funding to be utilized for design of three new

PROFESSIONAL REGISTRATION:
Civil Engineering - Oregon #06489PE/#01277LS, Washington #16989, Alabama #24611, Arkansas #10616, Arizona # 36473, California #19608, Colorado #35021, Florida #57938, Georgia #27654, Idaho #9969, Indiana#10100277, Kentucky #21872, Maine #10185, Michigan #47277, Mississippi 15473, Montana #14547, New Mexico #15041, North Carolina #26639, South Carolina #21375, Tennessee #00107937, Vermont #018-0007923, Virginia #402036101, West Virginia #15094, Wisconsin #E-34498, and Wyoming #9163

Oregon:
Environmental Engineering
Transportation Engineering
Professional Land Surveyor

wastewater pump stations. Two of the stations have been completed with remaining grant funding, and the third station was designed and is ready for construction.

Wastewater Planning and Treatment Improvements:

- City of Riddle Wastewater Treatment Improvements and Septic and Receiving Facility
- City of Sisters Wastewater Treatment Plant
- City of Joseph Wastewater Treatment Plant
- City of Rockaway Wastewater Treatment Plant
- City of Sutherlin Wastewater Treatment Plant
- City of Myrtle Creek / Tri City Sanitary District Wastewater Treatment Plant
- City of Brookings Dawson Tract Improvement Project
- Gardiner Sanitary District Wastewater Improvements
- LaPine Wastewater Treatment and System Improvements
- Terrebonne Wastewater Improvements
- City of Gold Hill Wastewater Treatment Plant
- Driftwood Shores Wastewater Treatment Plant
- City of Port Orford Wastewater Treatment Plant
- City of Yachats Wastewater Treatment Plant
- City of Huntington Wastewater Treatment Plant Renovation
- City of Lakeside Wastewater Treatment Plant
- City of Coos Bay Plant #1 Wastewater Treatment Plant
- City of Coos Bay Plant #2 Wastewater Treatment Plant

Major Pipeline and Pump Station Improvements:

- City of Salem - Mission Street pump station and interceptor improvements and Pringle Street interceptor.
- LaPine Sanitary District - Sewer system improvements, 3 pump stations.
- Tri City Sanitary District - New sewer system and 7 pump stations.
- City of Sutherlin - 27" interceptor and 3 pump stations.
- City of Coos Bay - 15 pump stations and major interceptors.
- Wickiup Junction _ New sewer system.
- City of Brookings - Major new annexation, 3 pump stations.
- City of Port Orford - Major collection improvements.
- City of Lakeside - New sewer system, 2 pump stations.
- Gardiner Sanitary District - Sewer system, 2 pump stations.
- City of Winston, Parkway Pump Station - Major new pump station for the majority of flows generated in the City of Winston.

Water Planning and System Improvements

La Pine Water District Water System Improvements: Completed a new water system master plan. Improvements to date include two deep wells capable of 4.0 MGD, approximately 55,000 lineal feet of distribution improvements, a new 1.2 MG and a new 250,000 gallon steel reservoirs, and a booster pump station to maintain pressures in the central core. Much of this project was constructed on U.S.F.S. and B.L.M. Federal lands. The La Pine water system has been extended

FUNDING EXPERIENCE:

Mr. Nored has worked with Rural Development (RD) in developing more improvements for rural communities than any other active consultant in the State of Oregon. He understands the program well, has worked hard through the years to acquire the maximum possible level of grant assistance for municipal improvements for smaller Oregon communities, and has a good working relationship with representatives of their agency. He will utilize his experience and knowledge of the RD program to assure the maximum possible level of grant assistance for needed improvements.

to include Wickiup Jct. Plans are underway for a system expansion to include the Cagle area west of Wickiup Jct. HGE serves as District Engineer for the La Pine Water District.

City of Sisters Water Improvements: 35,000 lineal feet of 8" to 16" distribution line, several creek crossings, 1.6 MG prestressed concrete reservoir, three wells capable of producing 750 - 1550 gpm each, and new chlorination facilities. This project involved a lengthy permit process including a land use permit from the U.S.F.S. for the reservoir site.

Terrebonne Domestic Water District Water Planning and Improvements: Developed water system master plan and secured a $750,000 OCDB grant for transmission and distribution improvements. Project involved a new 250,000 gallon steel reservoir, a new 500,000 gallon steel reservoir, constant pressure booster station from reservoir to maintain system pressures, and new office/maintenance building. Improvements included an additional 25,000 lineal feet of distribution improvements, and two new 500 gpm wells and appurtenances. HGE serves as District Engineer for the Terrebonne Domestic Water District.

City of Manzanita Water Improvements: Construction of a membrane microfiltration treatment plant, eight miles of 12" HDPE transmission pipeline and development of a new well field for water supply. This project involved negotiations with virtually every permitting agency.

City of Sumpter Water Project: Construction of two glass fused water reservoirs (100,000 gallon and 300,000 gallon capacities), 360,000 gallon slow sand filtration system and approximately 22,000 feet of water distribution mains. This project involved extensive permitting and coordination with the U.S.F.S.

WILLIAM M. PAVLICH, P.E., C.W.R.E.

Senior Project Engineer

EXPERIENCE SUMMARY:
Since joining HGE in 1994, William Pavlich has focused on planning, analysis, and preliminary design phases of municipal water and wastewater projects. Mr. Pavlich's experience ranges from small rural communities to medium sized urban cities. His understanding of community needs, citizen concerns, the broad range of regulatory and funding agency requirements, and the financial impacts of recommended improvements, in addition to the purely engineering aspects of the project, allows for development of coherent, feasible, affordable, and supportable engineering solutions in the context of comprehensive planning documents.

EDUCATION:
B.S. Civil Engineering
University of Washington
1991

B.A. with Distinction in Philosophy
University of Washington
1983

PROFESSIONAL REGISTRATION:
Environmental Engineer, Oregon
Civil Engineer, Oregon
Certified Water Rights Examiner, Oregon

PROJECT EXPERIENCE:

Wastewater Planning and Engineering

Garibaldi, Oregon: Completed wastewater facilities plan recommending conversion of existing process units to digesters and the addition of a newer SBR. Project complicated by high I/I and limited expansion area on site. Conducted public information meetings prior to highly supported bond election. Prepared sewer rate study and funding applications. Assisted with the preparation and follow-up of environmental assessment, regulatory coordination, permitting, and mitigation plan.

Westfir, Oregon: Developed a wastewater facilities plan, capital improvements plan, water and sewer rate studies, and water and sewer SDC evaluations.

Sisters, Oregon: Completed wastewater facilities plan for proposed sewer system, aerated lagoon, winter holding and summer irrigation facilities. Participated in funding and regulatory agency coordination and public hearings for the controversial project.

Deschutes County Oregon: Prepared wastewater facilities plan for the LaPine Special Sewer District and the proposed "New Neighborhood" development. Completed several earlier studies for the area including a water and wastewater feasibility study for the New Neighborhood. Study included consideration of ecological treatment alternatives and advanced technologies (i.e. membrane bioreactor).

Merrill, Oregon: Completed wastewater facilities plan for comprehensive system improvements. Analysis of poorly documented system and evaluation of discharge options. Recommended facultative lagoon, winter holding, and summer irrigation. Option to continue discharging to Lost River necessitated review of options to provide high levels of nutrient removal and feasibility of meeting temperature and flow constraints for periods of permitted discharge. Complete preparation of funding applications and environmental assessment. Completed Predesign Report and participated in value engineering.

La Pine Special Sewer District, Oregon: Prepared predesign report for self-help project to construct a sewer system in Wickiup Junction, and a pump station and forcemain to convey flows to La Pine's facultative lagoons. Developed groundwater monitoring plan; assisted with well design, siting, equipment purchases, sampling, DEQ coordination, plan preparation, and follow-up.

Haines, Oregon: Completed wastewater engineering study of the City's collection system. Evaluation of sewer system videos and reports, and determination of flows verified by later flow meter addition and pump station modifications. Determined suitability for successful sewer system spot repairs. A self-help approach utilizing City staff for two weeks and $10,000 in expenditures resulted in a 30+% reduction in flows - confirming the conclusions/ recommendations of the study. Completed an effluent reuse plan for the City's facultative lagoon/holding pond and irrigation site. Recently completed a wastewater facilities plan.

STEPHEN R. COX

Senior Project Coordinator

EXPERIENCE SUMMARY:

Stephen Cox, a project manager, has been employed with HGE Inc., Architects, Engineers, Surveyors, & Planners since 1964. During his tenure, he has worked in every project facet from conception to construction management including: Planning, Surveying, Design, and Inspection. He is experienced in the process and coordination required between permit and funding agencies, owner, public, project design team, governmental agencies, and contractor for completion of a successful project. Since 1972, Stephen has been involved in more than 2,000 municipal improvement projects.

EDUCATION:

B.T.C.E.
Oregon Institute of Technology, 1972

PROFESSIONAL AFFILIATION:

Institute for the Certification of Engineering Technicians

American Public Works Association

PROJECT EXPERIENCE:

Wastewater Design and Construction Management

City of Salem: Designed and provided construction management for rehabilitation and replacement of the Mission Street Wastewater Interceptor and Pressure Main.

City of Adair Village: Designed and provided construction management for two wastewater pump stations, and collection system rehabilitation for I/I removal and holding pond/ spray irrigation system for summer land application of WWTP effluent. Provided construction management for WWTP renovations and Willamette River pressure main outfall for winter discharge of WWTP effluent.

City of Sisters: Provided construction management for all four phases of the City of Sisters' wastewater collection system and two pump stations. The collection system totaled nearly 67,000 linear feet of gravity sewer mains plus pressure mains and individual residential and commercial service laterals along with existing septic tank decommissionings.

La Pine / Newberry Industrial Park: Provided construction management for infrastructure development within the La Pine Industrial Group, Inc.'s Newberry Industrial Park. Improvements included construction of a water distribution system, STEG wastewater collection system, and development of streets with curb and gutters within the Industrial Park.

Gardiner Sanitary District: Developed the specifications, provided design, and construction management for Gardiner's pressure main replacement and infiltration/inflow improvements. In conjunction with the State Highway Department's replacement of the Smith River Bridge, Gardiner was required to construct a new pressure main across the new bridge and remove the old pressure main from the old bridge. Construction involved the hanging of nearly 1,650 linear feet of six-inch HDPE pressure pipe from the underside of the bridge deck. This project was followed by the complete cleaning and television inspection of Gardiner's wastewater collection system. Based upon the television inspection and joint testing, nearly 4,000 linear feet of eight and ten inch diameter gravity sewer mains were lined with PVC fold and form liner.

City of Coos Bay: Provide construction management and periodic construction observation for rehabilitation of Coos Bay Pump Station No. 7 in the Empire area of Coos Bay. Construction involved the installation of three new submersible sewage pumps in a new concrete wetwell along with new electrical panels, controls, and standby generation.

JAMES R. PARMENTER, E.I.T.

Project Coordinator

EXPERIENCE SUMMARY:
Mr. Parmenter is an Engineer-in-Training at HGE, Inc., Architects, Engineers, Surveyors & Planners. He has assisted with data analysis and site inspection on various projects. James displays an eagerness to provide our clients with the best possible service on their projects.
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EDUCATION:
Major: B.S. Mechanical Engineering
Oregon State University, 2004

REGISTRATION:
Engineer-in-Training, Oregon

PROJECT EXPERIENCE

Pump Station #3 Study, Coos Bay, Oregon.
Study of wastewater flows at Pump Station #3 in Coos Bay for replacement of existing pumps. Study included data collection and analysis using Sigma Flow Meters in conjunction with InSight data analysis software by HACH. Performed supplemental data analysis to support the final report.

Blackstone Subdivision, Yachats, Oregon.
Blackstone Subdivision overlooks the ocean from a hillside in Yachats, Oregon. The subdivision is directly responsible for providing water to an additional two subdivisions. Our task was to design the water, sewer, storm drain, and roads for Blackstone subdivision. Given the design parameters, it was necessary to use two reservoirs, two booster pump stations, numerous valves, and many feet of pipe. Under the supervision of Richard Nored P.E., James designed the water distribution system described above.

Raechel Estates Subdivision, Lakeside, Oregon.
The Raechel Estates Subdivision is located on the east end of Lakeside, Oregon. This project involved water, sewer, road, and storm drain design. Raechel Estates consisted of 36 lots on an 11 acre lot. James was responsible for the analysis, development, design, and inspection of this project.

LaPine Water Master Plan, LaPine, Oregon.
LaPine Water District retained HGE to prepare a new Water Master Plan. James performed needed calculations, WATER-CAD, and assisted with design ideas.

Scotts Mills Water System Improvements, Scotts Mills, Oregon. (05.118)
James carried out a wide variety of tasks assisting in the completion of Scotts Mills Water improvements. His talents where put to use for calculations, such as: pump, pipe and reservoir sizing, the development of system pressures, and proposed system demands. James also was designated to aid in the preparation of the construction documents as well as the final design drawings.

Coos Bay Pump Station #10, Coos Bay, Oregon.
The City of Coos Bay retained HGE to evaluate design alternatives for Pump Station #10, a primary pumping facility in the Coos Bay wastewater system. James assisted with pre-design, data analysis, and construction documents. A portion of the data analysis included: development of graphs which translated existing flows to projected flows, developing pressure main capacities, and evaluating the required air injection volumes to assist in hydrogen-sulfide control.

Winston Wastewater Pump Station, Winston, Oregon
James assisted with data analysis and construction documents for the replacement of an old pumping facility. The new pumping station handles the majority of flows generated in the City of Winston.

RUSS S. DODGE, P.L.S., C.W.R.E.

Principal Surveyor

EXPERIENCE SUMMARY:

Mr. Dodge has over 25 years of surveying experience, including a 7-year background in Mississippi. Mr. Dodge has provided survey data for virtually all firm operations over the years. He is a Principal with the firm and can be provide contract information along with a commitment to the Client. Mr. Dodge currently represents a number of clients exclusively, for whom he has provided survey & planning services for an extended time period. He has maintained an open ended contract with Verizon Northwest for 20 Years. He has produced virtually every type of survey imaginable, and has taken clients through initial drawings and plan concept, funding and grant applications, agency approvals, design, and final construction. Mr. Dodge is the manager of HGE's Survey and Mapping Department, and has direct supervision and administrative responsibility for this division, including all boundary, topographical, and construction surveys. He prepares all Reports, Plats, Calculations, and Proposals, produced by the department.

Mr. Dodge has extensive Engineering Design experience in Land Development Projects. He provides all design, mapping, and construction phase products involved on the private land development projects.

He is a competent user of AutoCad Civil 3d 2010, Land Development Desktop and utilize this product for all mapping and design phases of the surveys, architectural site plans, and civil engineering projects.

EDUCATION:

Livingston University, Math
Utah State University

PROFESSIONAL REGISTRATION:

Professional Land Surveyor:
Oregon LS # 2128
Mississippi LS # 2024
California RLS # 5600

Oregon CWRE # 41

PROFESSIONAL AFFILIATION:

Southwest Chapter of Professional Land Surveyor's of Oregon (Past President)

ACSM

PROJECT CATEGORY EXPERIENCE:

Pre-Design Surveys
Industrial Parks and Commercial Developments
Open Ended Contract Surveys
Aerial Photogrammetric Surveys
Hydrographic Surveys
Municipal & Individual Water Rights
Planning Consultant Services
Property & Boundary Surveys
Partitions & Subdivisions
ALTA Certification Surveys
FEMA Elevation Certificates
Topographical Surveys
Construction Surveys
Land Development Services
Site Plans
Environmental Assessment Surveys
Volumetrics
GPS/RTK
AS-Built Surveys
Cadastral Surveys
Utility Route Surveys (Telecommunications)
Accident Surveys
Condominiums
Tribal Lands Projects

Mr. Dodge regularly attends continuing education classes that pertain directly to the Field of Land Surveying & Mapping, this includes AutoCad Workshops, Water Right Seminars and Legal Aspects of Surveying to name a few. He is active and participates in all phases of the Survey Projects and prepares all Recorded Plats filed by the Company.

H.G.E. Survey Projects

2010

Construction Survey Services:

US Hwy 101: 13th St. – Seabird Drive (Bandon) / ODOT Office: Coquille
Contractor - LTM, Inc. / ***Project Completed: Spring 2008***

Oregon State Parks – Complete Construction of Crissey Fields State Park
Contractor: LTM dba Knife River / ***Project Completed: Winter 2009***

North Bend Airport -Terminal Building, Runway Reconstruction, Taxiway, Fuel Storage
Contractors – Coffman Excavation - LTM, Inc. / Knife River / ***Project Completed: Winter of 2007/2009***

US Hwy 101: Coos Bay Paving & Signal Repair / ODOT Office: Coquille
Contractor - LTM, Inc. / ***Project Completed: Winter of 2008 / 2009***

Hwy 42 South & Hwy 101 South – Establishment of Right of Way
ODOT Office: Coquille ***Project Completed: Summer 2008***

Contract (Long Term) Survey Services:

On Call Survey Services Contract (2 Year) Projects completed to date: 13
Reference: City of Coos Bay / Carol Nolte

Verizon Northwest – Complete Facility Surveying & Easement Services (18 Yrs)
Reference: Wyatt Rutherford

Private Developments Completed 2007 through 2010:

Ocean Terrace Subdivision	Phases 1, 2, & 3 - 76 Lots	Bandon, Oregon
BlackStone II Subdivision	Phase 2 – 22 Lots	Yachats, Oregon
The Colony at Face Rock	18 Tract Condominium	Bandon, Oregon
Bennetts Place	12 Lot Subdivision	Coos Bay, Oregon
Alder Acres RV Park	60 Unit Spaces & Storage	Coos Bay, Oregon
Michelle Subdivison	Phases 1 thru 4, 92 Lots	Coos Bay, Oregon
Bertagna Subdivision	18 Lot Multi Housing	Roseburg, Oregon
The Pointe Condominium	Phase 1, 16 Units	Winchester Bay, Oregon
Windsong Heights	12 Lot Subdivision	Yachats, Oregon
Master Heights Subdivision	24 Lot Subdivision	Reedsport, Oregon

The Projects above included all tasks and submissions involved in the application for the Tentative Plan through the Final Plating Stages. Including complete engineering services, planning presentations, construction services, final monumentation and recordations.

During this same time period our department completed over 60 private surveys, 6 Major Commercial ALTA's, and provided preliminary topographical information for 10 in house infrastructure improvement projects for our Engineering Department and 22 site plans for the Architectural Department. Projects ranged from waterline improvement projects involving the construction of 8,500 lf of new waterline to site plans for a complete school facility, municipal fire stations, grocery stores and hospitals.

Additional projects completed for other architectural and engineering firms include Site Surveys, Site Plans, Construction Survey Services and Hydrographic Surveys.

Geotechnical Engineering

PBS' Geotechnical Engineering Group offers several of the most experienced geotechnical experts in the Northwest, who have worked on hundreds of significant projects, including major projects throughout Washington and Oregon. PBS has the capacity to thoroughly evaluate large, complex properties as well as small sites. Our experience in providing geotechnical engineering services has been refined by years of working closely with our clients on their sites located throughout the Northwest.

PBS project experience includes:

- **In-House Resources** – The PBS Geotechnical Engineering Group includes in-house testing equipment, a drill rig, and field staff. This allows our team to provide expedited service during projects with limited schedules.
- **Testing & Inspection Services** – PBS maintains in-house staff and testing capabilities in support of our engineering projects. We have developed a strategic alliance with ACS testing to compliment our services as needed.
- **Seismic Ground Motion Studies and Mitigation** - PBS staff offer significant experience in the seismic analysis of developments and existing structures including bridges, embankments, and low and high-rise buildings. Our staff have also developed and installed liquefaction and lateral spread remediation treatments in the form of stone columns for local buildings and overpasses. We have developed and constructed methods to reduce liquefaction and lateral spread susceptibility.
- **Landslides** - We have extensive practical experience in landslide assessment, exploration, monitoring, analysis and remedial treatment. PBS staff have wide-ranging experience in stabilizing landslides associated with transportation corridors. We have assisted in obtaining funding through FHWA and FEMA, and have developed and implemented specialized cost-effective exploration and stabilization methods for multiple municipal clients with limited resources.
- **Geotechnical Support of Water & Wastewater Systems** - Our experience includes geotechnical exploration and testing, dewatering system design, multi-stage pump test, horizontal directional drilling, large-diameter pipe installation, temporary shoring design and providing construction observation.
- **Geotechnical Support of Transportation Projects** - PBS staff specializes in working within the transportation development environment, particularly related to wall design, bridge design, and the cost-effective stabilization of roadway failures. Our variety of methods include lightweight foam, soil nails and directional drill horizontal drains. We are experienced in emergency response as well as long-term monitoring and remedial treatments.
- **Geotechnical Support of Parks Projects** - PBS staff specializes in working with our natural resources group in the geotechnical aspects of parks development. Work often involves dealing with trails and/or roadways in sensitive areas, infiltration, general grading, erosion control and culverts, development in wetland areas, and athletic fields design and construction.
- **Geotechnical Support of Environmental Projects** - PBS staff specializes in working with our geo-environmental group in the geotechnical aspects of environmental assessment and cleanup. PBS staff have independent experience in assisting in cleanup strategies for underwater and upland soil caps and petroleum contamination removal and refilling. We have also been involved with methane migration and mitigation, capping of municipal waste, and burial of radioactive wastes.

Other Services:

- Geologic Mapping
- Instrumentation Installation and Maintenance
- Geophysical Explorations
- Monitoring Wells and Piezometers
- Explorations
- Drilling, Sampling and Logging of Soils and Rocks
- Management of Field Operations

PBS

Service Overview

RICK G. THRALL, PHD, PE, GE
PRINCIPAL / SENIOR GEOTECHNICAL ENGINEER

Education:
Ph.D., Geotechnical Engineering, Oregon State University, 1981
B.S., Civil Engineering, Oregon State University, 1976

Accreditation:
Professional Engineer (Oregon, Washington)
Professional Geotechnical Engineer (Oregon)

Committees & Memberships:
American Society of Civil Engineers
American Council of Engineering Companies of Oregon

Dr. Thrall has over 25 years of geotechnical engineering experience, with 20+ years' experience in the Pacific Northwest. Rick has served as a project manager and design engineer on unique combinations of geotechnical and civil engineering projects involving pipelines, water supply and pumping facilities, buildings, bridges, dams, landslides, levees, transportation routes, and park facilities. During that time, he has developed management skills for successfully tackling projects which are both technically challenging and organizationally difficult.

Dr. Thrall's experience as program manager includes completing engineering studies, developing engineering designs, preparing plans and specifications, and developing cost estimates for multi-discipline pipeline, road, bridge, retaining wall, and landslide stabilization studies around the Pacific Northwest. Rick has completed projects in nearly every western county in Oregon, Washington, and Northern California for a variety of public agency and private sector clients. In addition to local county and city agencies, Rick's clients include the U.S. Army Corps of Engineers, Federal Highway Administration, Oregon Department of Transportation (ODOT), U.S. Forest Service, local utilities, City of Portland Bureau of Water Works, and Portland Bureau of Environmental Services.

Project Highlights:

- **Lint Slough Geotechnical Investigation, Water and Sewer Directional Drilling, Waldport, OR** – Principal-in-Charge for a geotechnical investigation related to the construction of a 600-foot force main under Lint Slough using horizontal drilling techniques (HDD) 15 feet below the bottom of the slough.
- **West Side Interceptor Sewer Line, Lebanon, OR** – Geotechnical Engineer responsible for providing engineering recommendations for foundation design, trench excavation, and dewatering for the 60 inch diameter pipe. The 3,650-foot-long alignment included two waterway crossings.
- **Fanno Pump Station and Pressure Line, Portland, OR** – Senior Engineer in charge of project coordination and design review for the pump station and 16,500 foot pressure line alignment.
- **Cowlitz County Wastewater Treatment Plant, Port of Longview, WA** – Principal engineer in charge of design review for 1.5 miles of new sewer and water lines. Project challenges included design of pipeline excavation, shoring loose granular soils, and shallow groundwater.
- **WestPark Horizontal Directional Drilling & Pipeline Investigation, Clark County, WA** – Principal Geotechnical Engineer for expert review, engineering guidance, and construction observation services for the approximately for 18-inch diameter, 736-foot-long storm drain.

PBS
Engineering + Environmental

Rick G. Thrall, PhD, PE

DJ BURROWS, EIT
PROJECT ENGINEER

Education:
B.S., Environmental Engineering,
Oregon State University, 2009

Accreditation:
Engineer-in-Training (Oregon)
AHERA Building Inspector, 2008
NIOSH 582 Equivalent Course, 2007

Since joining PBS in late 2007, DJ has been involved in both the geotechnical engineering and environmental health fields. His responsibilities include on-site construction inspection services, environmental health monitoring, and reporting assistance. While working as an Industrial Hygienist for PBS, DJ completed his Bachelor of Science degree in Environmental Engineering. DJ's in-depth knowledge of both field operations and environmental science has made him a valuable member of the PBS Team.

Project Highlights:

- **Iris Hill Winery Wastewater Consulting, Creswell, OR; *Sycan Development Corporation*** – Lead Consultant responsibilities included sampling of a wastewater effluent stream and preparing monthly reports with analytical results of pollutants of interest to the client. Duties included coordinating a sampling schedule, performing grab or composite sampling (utilizing a programmable water sampling device) of the effluent stream, and compiling laboratory results spreadsheets and reports.
- **Dexter Transfer Yard Stormwater Monitoring, Eugene, OR; *Glustina Resources*** – Lead Consultant responsibilities included sampling stormwater outfalls on site and preparing reports comparing analytical results to site-specific stormwater benchmarks. Duties included coordination of a sampling schedule, compiling laboratory results, regularly informing the client of project status and sampling results, and informing the client of and abiding by regulatory requirements for stormwater sampling.
- **Stormwater Testing for Plants #1 and #2, Eugene, OR; *States Industries*** – Field Technician responsible for environmental compliance consulting and stormwater testing.
- **Circle Boulevard Branch Phase I Environmental Site Assessment, Corvallis, OR; *Citizens Bank*** – Staff Engineer responsible for the research of historical documents and the completion of the Phase I ESA.
- **Villard Street Asbestos Sampling, Eugene, OR; *Neil Kelly Remodelers*** – Field Technician Responsible for materials survey and sampling for remodel of private residence.

PBS
Engineering + Environmental

DJ Burrows, EIT

EDWIN MORRISON
GEOTECHNICAL TECHNICIAN

Education:
Geotechnical Studies, Portland Community College, 1990
Mount Hood Community College, 1989
ASCE Compact Grouting

Accreditation:
Nuclear Density Certification
ODOT Drilled Shaft Inspector

Mr. Morrison plays a key role in construction and site observation for PBS' geotechnical projects. His experience includes stripping, cement amending, cuts and fills, footings, trenches, building pads, roadways, driven grout piles, drilled shaft piles, and soldier piles. Edwin has specific expertise in the installation and testing of helical anchors, and has participated in laboratory analysis of moisture content, p200s, and mechanical grain sizes.

Project Highlights:

- **West Park Development Stormwater Pipeline Repair & Rail Investigation, Vancouver, WA; S. Vilhauer Company** – Field Technician for project that included foundation design, trench excavation, and dewatering for the 60 inch diameter pipe. The 3,650-foot-long alignment included two waterway crossings.
- **McAllister Property Development and Utilities, Vancouver, WA** – Field Technician for project the included field exploration, excavation of test pits, and two percolation tests. Provided evaluation and recommendations relating to soil bearing capacities; lateral earth pressures for walls and structures; site drainage recommendations; grading recommendations for cuts and fills; earthwork recommendations; foundations; floor slabs; estimated settlement; paving design; and IBC seismic parameters including liquefaction review. PBS also provided construction observation and testing services for the project.
- **St. Vincent de Paul Property, Springfield, OR** – Field Technician for project that included a geotechnical investigation a new multi-family development in Springfield, Oregon. Our explorations consisted of four borings drilled to a depth of 20 to 25 feet. Infiltration testing was conducted in one of the borings. Geotechnical analysis was completed to provide design criteria and construction recommendations.
- **Oregon State Hospital Replacement Project, Salem, OR** – Field Technician for geotechnical investigation and on-going construction observation as subsurface site improvements are made.
- **Holden Streambank Stabilization Project, Clark County, WA** – Field Technician for geotechnical evaluation the site, preparation of an update to the Geotechnical Report previously prepared, and design consultation to the client during the design phase of the project. Construction monitoring services also provided during construction of the project.
- **University of Oregon Subsurface Investigation, Eugene, OR** – Field Technician for geologic investigation at the University of Oregon.

PBS
Engineering + Environmental

Edwin Morrison

PETER HUGHES, RG
STAFF GEOLOGIST

Education:
B.S., Geological Sciences, University of Washington, 2002

Accreditation:
Registered Geologist (Oregon)
Nuclear Density Certification
ODOT Certified Drilled Shaft Inspector
40-HR Hazardous Waste Operations & Emergency Response

Mr. Hughes has over 5 years' experience in the field of geology and performs subsurface explorations for the geotechnical engineering department at PBS. Peter has been involved in geotechnical engineering explorations, subsurface explorations, geological map investigations, and writing geological reports. He performs site reconnaissance, sampling, and logging of subsurface soil borings, rock cores, and test pits, and is experienced in running infiltration testing. He is an experienced installer of vibrating wire piezometers and slope inclinometers. He also provides geological analysis used in our report preparation for geotechnical investigations and subsurface explorations.

Peter's field materials testing experience includes testing of embankment fill, utility trench backfill, structural fill, foundation subgrade, asphalt pavement compaction, and concrete fresh properties. He is PBS' Laboratory Manager with laboratory testing experience including Atterberg Limits, hydrometer analysis, grain-size analysis, moisture/density relationships (proctors), specific gravities of both soils and rock, organic content, sand equivalent, asphalt calibrations, asphalt theoretical maximum density (RICE), expansion index, asphalt extraction and gradation, concrete compressive strength, masonry compressive strength, falling head and constant head permeability, and triaxial shear strength.

Peter's construction observation experience includes installation and testing of micropile, soil nail, and tieback designs. He supervises utility and structural backfill, grading, and excavations as well as drilled shaft inspections and pile driving.

Project Highlights:

- **Wastewater Lift Station Geotech Investigation, Albany, OR; *HBH Consulting Engineers*** – Project Geologist for subsurface explorations and geologic map review.
- **Wastewater Treatment Plant Improvements, Riddle, OR; *Kennedy/Jenks Consultants*** – Project Geologist for subsurface exploration and geologic map review.
- **West Park Development Stormwater Pipeline Repair & Rail Investigation, Vancouver, WA; S. Vilhauer Company** – Field Support and construction oversight for foundation design, trench excavation, and dewatering for the 60-inch diameter pipe. The 3,650-foot-long alignment included two waterway crossings.
- **Myrtle Point Wastewater Treatment Plant, Myrtle Point, OR; Civil West Consulting Engineers** – Project Geologist for subsurface exploration and geologic map review.
- **Heritage Park Development, Springfield, OR** – Project Geologist for subsurface exploration, geologic reconnaissance, and geologic map review.
- **Portland Bureau of Water Works Meter Shop, Portland, OR; ABHT Structural Engineers** – Project Geologist for subsurface exploration and geologic map review.

PBS
Engineering + Environmental

Peter Hughes, RG

HGE INC

ARCHITECTS
ENGINEERS
SURVEYORS
PLANNERS

SECTION 4: QUALIFICATIONS, EXPERIENCE WITH SIMILAR PROJECTS, AND REFERENCES

4.1 HGE's Specialized Experience

Extensive Master/Facilities Planning Experience
HGE has recently prepared wastewater facilities plans and/or comprehensive wastewater engineering studies for more than 25 Oregon communities and water studies for more than 30 communities. All of our studies have been approved by DEQ and the Oregon State Human Services Division. Many of these studies have provided documentation for construction projects financed by either the Oregon Economic and Community Development Department, EDA, or Rural Development program, or a combination of different funding programs. HGE experience will be utilized on pre-design of the 58th Street Relief Sanitary Sewer Line project.

Mill City control room

Experience with Oregon Communities
HGE has extensive experience with Oregon community water and wastewater treatment, collection, and pumping improvements in Oregon. Our offices have developed municipal engineering projects for Oregon throughout our entire 58-plus years of proven performance.

HGE has recently completed plans for three (3) new wastewater pumping improvements for the City of Coos Bay, and two (2) additional wastewater pumping stations for the City of Garibaldi . We are completing plans for another new wastewater pump station for the City of Garibaldi.

Huntington outfall location

Improvement Plans, SDCs, and Rate Studies
HGE has prepared capital improvement plans, SDCs, and/or rate studies for more than 20 Oregon communities in the last eight years. Recent projects have been Wastewater Capital Facilities Plans for the City of Sisters and the La Pine Special Sewer District, Stormwater Master Plan for the City of Prineville, and Water Capital Facilities Plans for the Cities of Sisters, Shady Cove, and for the La Pine Water District.

Myrtle Creek effluent disposal

Municipal Design Experience
Ultimately, recommended improvements will need to be designed and constructed as the community continues to grow. HGE has been in business for more than 58 years, and we normally design approximately $10 million of municipal improvements each year. HGE has combined design expertise with a medium sized staff that works well with Oregon communities, and offers personalized service to our clients. We incorporate quality in every project developed by our firm.

Cost Consideration
HGE always considers community needs with a strong consideration towards the cost of developed facilities. In addition, to economize in long-term community needs, we view each project from the standpoint of serviceability, long-term

effectiveness, and maximum use of existing facilities that may have remaining life. Our staff carefully considers cost and value for every project undertaken.

4.2 Firm Qualifications

Firm qualifications are outline in subsequent sections of this proposal. Some qualifications that make HGE uniquely suitable for this project include:

- **Extensive wastewater design and construction experience.** HGE has developed more than 25 complete wastewater systems for Oregon communities.

- **Design Philosophy.** HGE believes strongly in the philosophy that good design and good detailing for construction plans lead to quality improvements at minimum expense to our municipal clients. In review of plans developed by our firm and by others, contractors consistently appreciate the clarity of plans developed by our office, and provide better and more cost effective bidding that offers cost savings to our projects.

Joseph lagoon

- **Experience with a broad range of Oregon communities.** While many of our clients have populations of less than 10,000 people, we have represented major municipalities with larger projects, including work for the cities of Salem, Portland, Coos Bay, and Grants Pass; and Clackamas and Deschutes Counties. Major Salem projects included the Mission Street pump station and pressure main, and the Pringle Creek interceptor project. Both projects were completed well within the established budgets.

- **Public works funding experience.** HGE has extensive experience dealing with federal and state grants and loans. Our office has utilized grant/loan funding from virtually every public works funding program available.

- **Medium-sized firm.** HGE's efficient, experienced staff of 17 highly-qualified employees provides the support necessary to meet the time frames established for this project, while providing quality service, and close coordination with City staff, and local residents. Experience and efficiency allows us to keep our overhead and hourly rates at a reasonable level.

4.3 Recent Wastewater Experience and References

Several recent wastewater projects and associated references are included below. Of the references cited, all were completed with some members of the project team. The six clients are: Sisters, Garibaldi, Coos Bay, Deschutes County, La Pine Special Sewer District, and Terrebonne Water District.

City of Sisters
Paul Bertagna, Public Works Director
PO Box 39, Sisters, Oregon 97759
Telephone: 541.323.5212
541.323.5205

City of Sisters, Oregon
Until recently, Sisters did not have a public wastewater system. Residents and businesses used private septic systems, making Sisters one of the largest communities in Oregon without municipal wastewater service. HGE completed a wastewater facilities plan, which included recommendations for an entirely new wastewater and collection system. Treatment consists of aerated lagoons.

Sisters aerated lagoon

Sisters distribution improvements

Treated effluent is stored in holding ponds during winter, and used to irrigate forest land in the summer. The reclaimed water use plan includes irrigation of forest land. Estimated cost for the public system was approximately $14.1 million. The sewer system involved over 25,000 lineal feet of six inch (6") to twenty-four inch (24") gravity sewer line and over 6,000 lineal feet of pressure mains.

The project was controversial, particularly since there was concern that after a public system was installed there would be significant growth and developments that would change the character of the community. Also, some residents felt that their septic systems were adequate, and that a public system was not needed.

HGE worked with a citizens' task force committee to provide a public education program. The $7 million bond election was approved by more than 60% of the voters in the September 1998 bond election. HGE assisted the city in receiving matching grant funds. Since this is a large program for funding programs in Oregon, we worked diligently to secure the needed $ 6.5 million in needed grant funds, and were successful in awards from the SRF Hardship Grant Program, from RIF Funds, Rural Development, OCDBG, Oregon Water/Wastewater, Oregon SPWF, USFS, and Economic Development Administration Grant Funds.

In addition to all of the differing grant/loan requirements, this project involved obtaining permits from ODOT, Deschutes County, the US Forest Service, DSL, COE, and others, including an environmental assessment for every aspect of the project. There was also numerous easements, required from individuals, Federal, State, and local entities.

City of Garibaldi
Wayne Schultz, Public Works
PO Box 708, Garibaldi, Oregon 97118
Telephone: 503.322.3327

City of Garibaldi, Oregon

Garibaldi's collection system has significant I/I which has resulted in overflows of raw sewage into Tillamook Bay. The treatment plant is also more than 20 years old, and in addition to mechanical equipment and electrical controls being worn out, the plant is not capable of meeting current standards for biosolids treatment and disposal, wastewater effluent treatment, and effluent toxicity at the outfall discharge in the bay. Also, significant growth has occurred, and Garibaldi is at the point where it will be difficult to meet mass discharge limits without increasing the efficiency of the treatment process.

Garibaldi groundbreaking

HGE conducted a preliminary I/I removal study. The city initially made what were determined to be cost-effective improvements to the collection system to reduce winter_time flows to the plant. HGE was then retained to complete a wastewater facilities plan. Recommendations included a new SBR treatment facility, and conversion of the existing treatment facilities into biosolids treatment and storage. HGE assisted the city with a public education program. The city held a $2.5 million bond election, which passed by a significant majority. HGE also conducted a sewer rate study and prepared funding applications, including a comprehensive environmental report. Construction for this project is complete. Bill Pavlich functioned as Project Engineer and Richard Nored was Project Manager.

The City's existing outfall was extended 60 feet deep into Tillamook Bay.

Since the treatment plant project we have worked with the City of Garibaldi on design, bidding, and construction management for three (3) wastewater pump stations.

Deschutes County
Susan Ross, Senior Management Analyst
1130 NW Harriman,
Bend, Oregon 97701
Telephone: 541.383.6713

La Pine Special Sewer District
Donna Zigler, Manager
PO Box 2460
La Pine, Oregon 97739
Telephone: 541.536.6236

Deschutes County, Oregon

La Pine Special Sewer pump station installation

La Pine Special Sewer District provides wastewater collection and treatment for much of the surrounding area. The collection system is a hybrid design with elements of septic tank effluent pumping (STEP) and septic tank effluent gravity (STEG) systems. HGE was retained by Deschutes County to design a similar collection system to tie-in the nearby Wickiup Junction Rural Service District, and has recently been retained by the sewer district to provide long range planning, an SDC study, and construction plans for system expansion. HGE has also been recently retained to prepare a wastewater facilities plan and water system master plan for La Pine and the "New Neighborhood", a planned community adjacent to La Pine. HGE prepared the 1996 water system master plan for La Pine, the 1999 feasibility study for the "New Neighborhood," and new studies for both La Pine Special Sewer District and La Pine Water District in 2007. In total, HGE has completed over 31,000 linear feet of gravity sewer improvements, three (3) pump stations, 14,000 linear feet of pressure mains, and a wastewater treatment plant expansion for the La Pine Special Sewer District.

Myrtle Creek golf course

City of Myrtle Creek/Tri City Sanitary District, Oregon

HGE represented the Tri City Sanitary District on virtually all major projects since 1968, and has developed every aspect of their wastewater system. In 1995, HGE was retained by the city of Myrtle Creek to develop a Wastewater Facilities Plan to expand existing wastewater facilities, coordinate grant securement for expansion of existing facilities, and for removal of effluent flows from the South Umpqua basin. HGE also assisted the city of Myrtle Creek in securing grant funding for an effluent reuse plan that will irrigate the new Myrtle Creek golf course. HGE was retained to design and provide construction management for an effluent pump station and 16" effluent disposal line to transmit flows to the golf course for effluent reuse. This project has been successfully completed. HGE also completed a new sewer expansion to serve the South Umpqua Industrial Park.

4.4 Recent Wastewater Pump Station Experiences and References

While HGE has completed numerous similar projects throughout Oregon, the following two project profiles are presented to highlight HGE's qualifications and relevant experience.

Sisters pump station

City of Sisters, Oregon
Contact: Paul Bertagna, Public Works Director
Phone: 541.323.5212

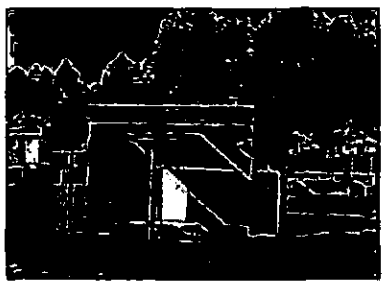
The Sisters main pump station transmits all flows from the City to the Wastewater Treatment Plant site. This pump station was an integral portion of a new $14.1 million wastewater project to provide sewer service for the community. The overall project included a new aerated lagoon wastewater treatment plant, a 100-acre SCADA controlled forest irrigation effluent reuse project, over 25,000 lineal feet of gravity sewer pipe ranging from 8" to 24" diameter, 2 pump stations and some 6,000 lineal feet of pressure mains. Service laterals were also installed to connect each residence and business directly to the new sewer system. The main

pump station is the self-cleaning trench style, with three submersible pumps of 850 gpm each (KSB pumps). A 125 KW Kohler generator is provided for standby reliability. Challenges on the project were primarily coordination issues between nine general contractors and numerous subcontractors, and rock excavation which occurred in limited quantities on all phases of the project. Richard Nored acted as Project Manager/Engineer for this project.

Coos Bay pump station # 7

City of Coos Bay, Oregon
Contact: Mike McDaniels, Operations Manager, CH2M Hill
Phone: 541.267.3966

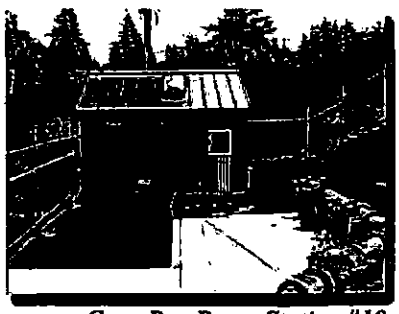
Coos Bay retained HGE to evaluate pumping needs at Wastewater Pump Station # 7. This station was constructed in the early 1950's, and had been rehabilitated in 1974. Capacity and deterioration of equipment were the primary concerns. Two other pump stations transfer flows into Pump Station # 7, with one of the stations having been constructed after the 1974 remodel. Settlement around the pumping facility was also an issue, and the site was very limited for both expansion and reconstruction of the facility. Growth was occurring in the service area, and concern existed regarding the capabilities of both the transmission main from the station, and the gravity line that ultimately carried flows into the treatment plant. HGE conducted flow studies, evaluated the potential for expansion of existing pumps and the station in general, and evaluated the potential for the existing collection system to contain increased flows without flooding. The existing station was renovated with a new self-cleaning trench style wetwell, and the existing building was also renovated with new electrical service and standby generation. Three submersible pumps were installed with the capacity of 650 gpm each (Flygt Pumps). A new 50 KW Kohler generator was provided for standby reliability. Challenges on the project were an extremely high water table, running sand, and containment of flows from the two pump stations transmitting flows into this site. The existing station stayed in continual usage until the new station was ready to function. Richard Nored acted as Project Manager/Engineer for this station and Steve Cox provided construction management.



Coos Bay pump station # 3

Coos Bay Pump Station #3

Coos Bay then retained HGE to provide a similar study and design for Wastewater Pump Stations # 3 and #10. Construction for these project has been completed. Pump Station # 3 is of similar type design as #7, but is a completely new station built on the existing treatment plant site. Pump Station #10 was constructed in a similar manner to Pump Station #7. Three submersible pumps were utilized in Station #3 with capacity of 1,100 gpm each, and two (2) pumps were utilized for Station #10, with a capacity of 1,200 gpm each. Challenges are similar to Pump Station # 7. Richard Nored acted as Project Manager while James Parmenter functioned as design engineer. Steve Cox provided construction management.



Coos Bay Pump Station #10

4.5 HGE's Success Financing Projects Through Federal Grants/Loans

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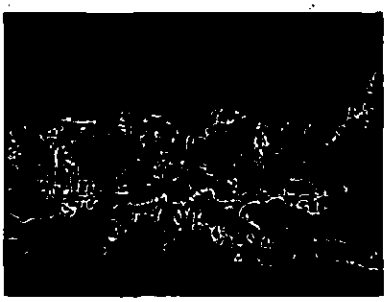
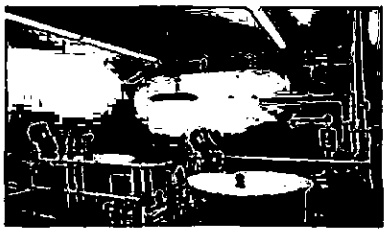


Terrebonne distribution improvements



Riddle chemical feed pump room

Tri City Sanitary District

Total Project Cost	$2,800,000
75% EPA Grant	$1,000,000
RD Grant #1	$150,000
Supplemental RD Grant	$375,000

Port Orford Wastewater Improvements

Total Project Cost	$1,600,000
OCDBG Grant	$750,000
Water/Wastewater Grant	$380,000
Water/Wastewater Loan	$470,000

Sisters Wastewater Improvements

Total Project Cost	$14,100,000
RD Grant	$5,500,000
EDA Grant	$1,000,000
W/WW Grant	$500,000
SPWF Grant	$500,000
SRF Grant	$240,000
RIF Grant	$90,000
Loans	$5,170,000

Garibaldi Wastewater Improvements and Bay Outfall Extension

Total Project Cost	$4,540,900
RD Grant	$1,400,000
RD Loan	$1,494,900
OECDD Grant	$500,000
OECDD Loan	$500,000
OCDBG Grant	$646,000

Huntington Sewer Improvement

Total Project Cost	$375,000
OCDBG Grant	$375,000

Terrebonne Water District

Total Project cost	$2,757,000
OCDBG Grant	$750,000
RD Grant	$ 882,000
RD Loan	$1,125,000

Sisters Water Improvements

OCDBG Grant	$500,000
RD Grant	$971,000
RD Loan	$700,000

Manzanita Water Improvements

Total Project Cost	$5,989,542
RD Grant	$2,631,300
RD Loan	$3,290,410

Yamhill Water Improvement Project

Total Project Cost	$2,897,190
SRF Loan	$2,000,000
W/WW Grant	$500,000
SPWF Grant	$257,190
Local Funds	$140,000

Joseph

Total Project Cost	$1,666,550
Water/Wastewater Grant	$500,000

Oakland Wastewater Improvements

Total Project Cost	$4,623,001
OCDBG Grant	$329,800
RD Grant	$1,965,000
RD Loan	$2,005,000
ODOT Grant	$130,000

Rufus Water Improvement Project

Total Project Cost	$2,250,000
OCDBG Grant	$750,000
RD Loan	$900,000
RD Grant	$600,000

Lakeside Water District

Total Project Cost	$2,935,000
RD Grant	$1,585,000
RD Loan	$1,350,000

Tri City Water District

Total Project Cost	$4,700,000
RD Loan (Phase I & II)	$1,545,000
RD Grant (Phase III)	$320,000
RD Grant (Phase II)	$1,576,200
RD Loan (Phase II)	$1,136,600

Unity

Total Project Cost	$780,000
OCDBG Grant	$700,000
RD Loan	$80,000

LaPine Water District

Total Project Cost	$5,600,000
OCDBG Grant	$534,615
RD Grant	$1,798,500
RD Loan	$3,151,500
COIC Grant	$24,000

Riddle Water Improvements

Total Project Cost	$5,390,900
RD Grant	$2,808,400
RD Loan	$2,492,500
Local	$90,000

Mill City

Total Project Cost	$4,807,000
RD Grant	$1,996,000
RD Loan (6.375%, 40yrs)	$1,347,000
EPA Grant	$580,000
HUD	$482,500

Jacksonville Water Improvements

Total Project Cost	$5,000,000
RD Grant	$2,750,000
RD Loan	$2,250,000