186316

CITY OF PORTLAND AGREEMENT FOR PROFESSIONAL, TECHNICAL, OR EXPERT SERVICES

CONTRACT NUMBER _____

TITLE OF WORK PROJECT Portsmouth Forcemain Drain-Back Improvements

This contract is between the City of Portland ("City," or "Bureau") and Carollo Engineers, Inc. ("Consultant"). The City's Project Manager for this contract is Daniel J. Hebert, P.E.

Effective Date and Duration

This contract shall become effective on October 14, 2013, or the date the contract is fully executed. This contract shall expire, unless otherwise terminated or extended, on June 30, 2016.

Consideration

- (a) City agrees to pay Consultant a sum not to exceed \$225,700 for accomplishment of the work.
- (b) Interim payments shall be made to Consultant according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONSULTANT DATA AND CERTIFICATION
Name (print full legal name): Carollo Engineers, Inc.
Address: 720 SW Washington St, Suite 550, Portland, OR 97205
Employer Identification Number (EIN): 86-0899222 [INDEPENDENT CONTRACTORS: DO NOT PROVIDE SOCIAL SECURITY NUMBER (SSN) – LEAVE BLANK IF NO EIN]
City of Portland Business Tax Registration Number: 424264
Citizenship: Nonresident alien Yes No
Business Designation (check one):lndividualSole ProprietorshipPartnershipX_Corporation
Limited Liability Co (LLC) Estate/Trust Public Service Corp Government/Nonprofit
Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. Information must be provided prior to contract approval.

TERMS AND CONDITIONS

1. Standard of Care

Consultant shall perform all services under this contract using that care, skill, and diligence that would ordinarily be used by similar professionals in this community in similar circumstances.

2. Effect of Expiration

Passage of the contract expiration date shall not extinguish, prejudice, or limit either party's right to enforce this Contract with respect to any default or defect in performance that has not been corrected.

3. Order of Precedence

This contract consists of these Terms and Conditions, the Statement of Work and Payment Schedule, and any exhibits that are attached. Any apparent or alleged conflict between these items will be resolved by using the following order of precedence: a) these Terms and Conditions; b) Statement of Work and Payment Schedule: and c) any exhibits attached to the contract.

4. Early Termination of Contract

- (a) The City may terminate this Contract for convenience at any time for any reason deemed appropriate in its sole discretion. Termination is effective immediately upon notice of termination given by the City.
- (b) Either party may terminate this Contract in the event of a material breach by the other party that is not cured. Before termination is permitted, the party seeking termination shall give the other party written notice of the breach, its intent to terminate, and fifteen (15) calendar days to cure the breach. If the breach is not cured within 15 days, the party seeking termination may terminate immediately by giving written notice that the Contract is terminated.

Page 1 of 22

5. Remedies and Payment on Early Termination

- (a) If the City terminates pursuant to 4(a) above, the City shall pay the Consultant for work performed in accordance with the Contract prior to the termination date. No other costs or loss of anticipated profits shall be paid.
- (b) If the City terminates pursuant to 4(b) above, the City is entitled all remedies available at law or equity. In addition, Consultant shall pay the City all damages, costs, and sums incurred by the City as a result of the breach.
- (c) If the Consultant justifiably terminates the contract pursuant to subsection 4(b), the Consultant's only remedy is payment for work prior to the termination. No other costs or loss of anticipated profits shall be paid.
- (d) If the City's termination under Section 4(b) was wrongful, the termination shall be automatically converted to one for convenience and the Consultant shall be paid as if the Contract was terminated under Section 4(a).
- (e) In the event of early termination the Consultant's work product before the date of termination becomes property of the City.

6. Assignment

Consultant shall not subcontract, assign, or transfer any of the work scheduled under this agreement, without the prior written consent of the City. Notwithstanding City approval of a subconsultant, the Consultant shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Consultant hereunder. The Consultant agrees that if subconsultants are employed in the performance of this Agreement, the Consultant and its subconsultants are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

7. Compliance with Applicable Law

Consultant shall comply with all applicable federal, state, and local laws and regulations. Consultant agrees it currently is in compliance with all tax laws. Consultant shall comply with Title VI of the Civil Rights Act of 1964 and its corresponding regulations as further described at: http://www.portlandoregon.gov/bibs/article/446806.

8. Indemnification for Property Damage and Personal Injury

Consultant shall indemnify, defend, and hold harmless the City, its officers, agents, and employees, from all claims, losses, damages, and costs (including reasonable attorney fees) for personal injury and property damage arising out of the intentional or negligent acts or omissions of the Consultant, its Subconsultants, suppliers, employees or agents in the performance of its services. Nothing in this paragraph requires the Consultant or its insurer to indemnify the City for claims of personal injury or property damage caused by the negligence of the City. This duty shall survive the expiration or termination of this contract.

Insurance

Consultant shall obtain and maintain in full force at Consultant expense, throughout the duration of the Contract and any warranty or extension periods, the required insurance identified below. The City reserves the right to require additional insurance coverage as required by statutory or legal changes to the maximum liability that may be imposed on Oregon cities during the term of the Contract.

(a) Workers' compensation insurance as required by ORS Chapter 656 and as it may be amended. Unless exempt under ORS Chapter 656, the Consultant and all subconsultants shall maintain coverage for all subject workers.
X Required and attached or Proof of exemption (i.e., completion of Workers' Compensation Insurance Statement)
(b) General commercial liability (CGL) insurance covering bodily injury, personal injury, property damage, including coverage for independent contractor's protection (required if any work will be subcontracted), premises/operations, contractual liability, products and completed operations, in per occurrence limit of not less than \$1,000,000, and aggregate limit of not less than \$2,000,000.
X Required and attached or waived by Bureau Director or designee
(c) Automobile liability insurance with coverage of not less than \$1,000,000 each accident, and an umbrella or excess liability coverage of \$2,000,000. The insurance shall include coverage for any auto or all owned, scheduled, hired and nonowned auto. This coverage may be combined with the commercial general liability insurance policy.
X Required and attached or waived by Bureau Director or designee
(d) Professional Liability and/or Errors & Omissions insurance to cover damages caused by negligent acts, errors or omissions related to the professional services, and performance of duties and responsibilities of the Consultant under this contract in an amount with a combined single limit of not less than \$1,000,000 per occurrence and aggregate of \$2,000,000 for all claims per occurrence. In lieu of an occurrence based policy, Consultant may have claims-made policy in an amount not less than \$1,000,000 per claim and \$2,000,000 annual aggregate, if the Consultant obtains an extended reporting period or tail coverage for not less than three (3) years following the termination or expiration of the Contract provided such coverage is available and economically feasible.
X Required and attached or waived by Bureau Director or designee
Continuous Coverage; Notice of Cancellation: The Consultant agrees to maintain continuous, uninterrupted coverage for the duration of the Contract. There shall be no termination, cancellation, material change, potential exhaustion of aggregate limits or

non renewal of coverage without thirty (30) days written notice from Consultant to the City. If the insurance is canceled or

Page 2 of 22



terminated prior to completion of the Contract, Consultant shall immediately notify the City and provide a new policy with the same terms. Any failure to comply with this clause shall constitute a material breach of Contract and shall be grounds for immediate termination of this Contract.

Additional Insured: The liability insurance coverages, except Professional Liability, Errors and Omissions, or Workers' Compensation, shall be without prejudice to coverage otherwise existing, and shall name the City of Portland and its bureaus/divisions, officers, agents and employees as Additional Insureds, with respect to the Consultant's activities to be performed, or products or services to be provided. Coverage shall be primary and non-contributory with any other insurance and self-insurance. Notwithstanding the naming of additional insureds, the insurance shall protect each additional insured in the same manner as though a separate policy had been issued to each, but nothing herein shall operate to increase the insurer's liability as set forth elsewhere in the policy beyond the amount or amounts for which the insurer would have been liable if only one person or interest had been named as insured.

Certificate(s) of Insurance: Consultant shall provide proof of insurance through acceptable certificate(s) of insurance, including additional insured endorsement form(s) and all other relevant endorsements, to the City prior to the award of the Contract if required by the procurement documents (e.g., request for proposal), or at execution of Contract and prior to any commencement of work or delivery of goods or services under the Contract. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insureds (or Loss Payees). Insurance coverages required under this Contract shall be obtained from insurance companies acceptable to the City of Portland. The Consultant shall pay for all deductibles and premium. The City reserves the right to require, at any time, complete, certified copies of required insurance policies, including endorsements evidencing the coverage the required.

Subconsultant(s): Consultant shall provide evidence that any subconsultant, if any, performing work or providing goods or service under the Contract has the same types and amounts of coverages as required herein or that the subconsultant is included under Consultant's policy.

10. Ownership of Work Product

All work product produced by the Consultant under this contract is the exclusive property of the City. "Work Product" includes, but is not limited to: research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form. The Consultant and the City intend that such Work Product shall be deemed "work made for hire" of which the City shall be deemed the author. If for any reason a Work Product is deemed not to be a "work made for hire," the Consultant hereby irrevocably assigns and transfers to the City all right, title and interest in such work product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrines. Consultant shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Consultant waives all rights relating to work product, including any rights arising under 17 USC 106A, or any other rights of authorship, identification or approval, restriction or limitation on use or subsequent modifications. If the Consultant is an architect, the Work Product is the property of the Consultant-Architect, and by execution of this contract, the Consultant-Architect grants the City an exclusive and irrevocable license to use that Work Product.

Notwithstanding the above, all pre-existing trademarks, services marks, patents, copyrights, trade secrets, and other proprietary rights of Consultant are and will remain the exclusive property of Consultant.

11. EEO Certification

In the event Consultant provides in excess of \$2,500.00 for services to the City in any fiscal year, Consultant shall obtain EEO certification from the City.

12. Equal Benefits

Consultant must comply with the City's Equal Benefits program as prescribed by Chapter 3.100 of the Code of the City of Portland. The required documentation must be filed with Procurement Services, City of Portland, prior to contract execution.

13. Successors in Interest

The provisions of this contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective successors and approved assigns.

14. Severability

The parties agree that if any term or provision of this contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular term or provision held to be invalid.

15. Waiver

The failure of the City to enforce any provision of this contract shall not constitute a waiver by the City of that or any other provision.

16. Errors

The Consultant shall promptly perform such additional services as may be necessary to correct errors in the services required by this contract without undue delays and without additional cost.

17. Governing Law/Venue

The provisions of this contract shall be interpreted, construed and enforced in accordance with, and governed by, the laws of the State of Oregon without reference to its conflict of laws provisions that might otherwise require the application of the law of any other jurisdiction. Any action or suits involving any question arising under this contract must be brought in the appropriate court in Multnomah County Oregon.

18. Amendments

All changes to this contract, including changes to the scope of work and contract amount, must be made by written amendment and approved by the Chief Procurement Officer to be valid. Any amendment that increases the original contract amount by more than 25% must be approved by the City Council to be valid.

19. Business Tax Registration

The Consultant shall obtain a City of Portland business tax registration number as required by PCC 7.02 prior to beginning work under this Contract.

20. Prohibited Conduct

The Consultant shall not hire any City employee who evaluated the proposals or authorized the award of this Contract for two years after the date the contract was authorized without the express written permission of the City and provided the hiring is permitted by state law.

21. Payment to Vendors and Subconsultants

The Consultant shall timely pay all subconsultants and suppliers providing services or goods for this Contract.

22. Access to Records

The Consultant shall maintain all records relating to this Contract for three (3) years after final payment. The City may examine, audit and copy the Consultant's books, documents, papers, and records relating to this contract at any time during this period upon reasonable notice. Copies of these records shall be made available upon request. Payment for the reasonable cost of requested copies shall be made by the City.

23. Audits

- (a) The City may conduct financial and performance audits of the billings and services specified in this agreement at any time in the course of the agreement and during the three (3) year period established by paragraph 22. Audits will be conducted in accordance with generally accepted auditing standards as promulgated in <u>Government Auditing Standards</u> by the Comptroller General of the United States Government Accountability Office.
- (b) If an audit discloses that payments to the Consultant exceed the amount to which the Consultant was entitled, the Consultant shall repay the amount of the excess to the City.

24. Electronic Signatures

The City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

25. Merger Clause

This Contract encompasses the entire agreement of the parties, and supersedes all previous understandings and agreements between the parties, whether verbal or written.

26. Dispute Resolution/Work regardless of disputes

The parties shall participate in mediation to resolve disputes before conducting litigation. The mediation shall occur at a reasonable time after the conclusion of the Contract with a mediator jointly selected by the parties. Notwithstanding any dispute under this Contract, the Consultant shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Contract for undisputed portions of the work. In the event of litigation no attorney fees are recoverable. No, different dispute resolution paragraph(s) in this contract or any attachment hereto shall supersede or take precedence over this provision.

27. Progress Reports: /X/Applicable /_/Not Applicable

If applicable, the Consultant shall provide monthly progress reports to the Project Manager as described in the Statement of the Work and Payment Schedule.

28. Consultant's Personnel: / X / Applicable / / Not Applicable

If applicable, the Consultant shall assign the personnel listed in the Statement of the Work and Payment Schedule for the work required by the Contract and shall not change personnel without the prior written consent of the City, which shall not be unreasonably withheld.

29. Subconsultants

The Consultant shall use the subconsultants identified in its proposals. The Consultant shall not change subconsultant assignments without the prior written consent of the Chief Procurement Officer. The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its proposals. Failure to use the identified M/W/ESB subconsultants without prior written consent is a material breach of contract.

Page 4 of 22



For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: http://www.portlandoregon.gov/bibs/45475.

30. Third Party Beneficiaries

There are no third party beneficiaries to this contract. Enforcement of this contract is reserved to the parties.

STATEMENT OF THE WORK AND PAYMENT SCHEDULE

GENERAL

The Bureau of Environmental Services (BES), a part of the City of Portland, (City) serves the Portland community by protecting public health, water quality, and the environment. Specifically, BES provides sewage and stormwater collection and treatment services, protects the quality of surface and ground water, and conducts activities that promote healthy ecosystems in watersheds.

The Portsmouth Forcemain (PFM) conveys flow from the Swan Island Combined Sewer Overflow Pump Station (SICSO) to the Portsmouth Tunnel. The PFM is part of a complex network of pipelines, tunnels, forcemains and pump stations that collects sanitary sewage and stormwater and conveys that flow to the Columbia Boulevard Wastewater Treatment Plant (CBWTP) for treatment and discharge.

The PFM is not in continuous use. Between uses, it is drained to provide an additional 3 million gallons of storage to the CSO system. In addition, draining the PFM will reduce the potential build-up of odors and problems associated with sending a slug of septic sewage to the CBWTP. The PFM slopes down from the Portsmouth Tunnel to the SICSO facilitating gravity drain back. Currently, to empty the forcemain into the SICSO wet well, flow must pass through an 8-inch drain pipe and valve located on the lowest level of SICSO. This pipe was not originally designed to drain the PFM, but rather to drain the much smaller volume of pump discharge piping within SICSO. Drain back through the 8-inch pipe results in flow for a longer period of time than the pipe was designed for, and risks long-term damage to the pipe and valve.

Consultant will provide technical and design services in civil, structural, mechanical, electrical, and instrumentation engineering to complete the Preliminary and Final Design for the Portsmouth Forcemain Drain-Back Improvements project at the SICSO. Design services for the project include the design an automated system to allow safe, sustainable means of draining the PFM between operating events.

SERVICES PROVIDED BY CITY

BES has assigned a project manager to oversee the Consultant's work and provide support as needed. Specific duties BES will perform include:

- Obtain Building and Regulatory Permits for Construction: BES shall apply for the City of Portland Commercial Building Permit from the Bureau of Development Services (BDS), and shall submit the final plans and specifications to Oregon DEQ for review and approval to construct the project. The Contract Documents shall require the Construction Contractor to be responsible for obtaining all other required City of Portland trade permits.
- Bidding and Contract Requirements: BES in coordination with the City of Portland Procurement Services Bureau will prepare the Bidding and Contract Requirements sections of the Contract Documents. BES will also prepare the CSI Divisions 0 and 1 sections of the Contract Documents using the current 6-digit format.

- Printing of Documents: BES shall be responsible for advertising, printing and distributing the final set of bidding and contract requirements, detailed plans and technical specifications. BES will also print and issue addenda.
- <u>Bid Evaluation Report</u>: BES shall evaluate all bids submitted and prepare a bid analysis and evaluation report.
- <u>Construction Management</u>: BES shall be responsible for the project construction management, field inspection, special inspections, record keeping, administration and coordination of the Construction Contractors during the construction phase of the project.
- Owner-Furnished Data: BES shall provide technical data known by the BES project manager to be in the BES's possession and related to the services required on this project, which Consultant shall be entitled to use and rely upon. Bureau staff shall make available sufficient hours of staff personnel as is required to meet with the Consultant and provide such information as required: As-built drawings in hard copy form, BES CAD Standards, an electronic link to BES Wastewater Group Control System Standards as necessary, Best Practice Design Submittal Checklists at 60% and 100%, other specific information necessary to complete the project.
- <u>Software Development</u>: BES shall provide application software development (i.e. PLC and iFIX programming).
- Piping (Process) and Instrumentation Diagram (P&ID): BES will prepare new (and/or modify the existing) P&IDs to show the drain back system.
- <u>Valve Control Interconnection Diagram</u>: BES will prepare the valve control interconnection diagram.
- <u>PLC Panel Modifications</u>: BES will prepare design drawings of PLC panel modifications.
- Drawings prepared by BES (Owner): Owner furnished drawings will be provided by BES to Consultant in the normal course of design for inclusion in the design package and to allow for related interfaces shown on Consultant's drawings. BES' drawings that require a professional engineer's stamp will be stamped by BES personnel. PLC panel modifications needed to support the project will be shown as "by owner" and will be implemented by BES. BES will provide completed P&ID and Valve Control Interconnection Diagram during the 60% design, which will be reviewed by Consultant for coordination purposes, particularly in the area of interconnection. Consultant comments will be in the form of questions and comments hand-marked on drawings. These drawings will comprise Consultant's "starting point" for power and interconnection design, and thus will need to be provided early in the 60% schedule, and made firm sufficiently in advance of the 60% submittal to allow time for Consultant's design work to follow based on the firm drawings. The remaining BES-produced drawings will be reviewed by Consultant in the course of the 100% design, with handmarked questions and comments similarly provided. These reviews are principally for coordination purposes, and they are expected to occur once on each drawing. BES will track and inform Consultant of any changes following reviews, which are expected to be routine and minor.

SUMMARY OF SERVICES PROVIDED BY CONSULTANT

Consultant shall provide the following services in association with the design and construction of the Portsmouth Forcemain Drain-Back Improvements:

- Design drain pipe assembly, including material, diameter, connection locations, tie-ins to existing piping and suggested procedures to accomplish the work.
- Determine which walls or slabs must be penetrated and design the penetrations.
- Design appropriate discharge into the wet well to minimize negative impacts to the pumps and to odor.
- Specify drain valve model and size with electric actuator, and accessible local manual controls.
- Design electrical and control wiring between the valve actuator, valve local manual control location and hardware (if needed) and connection to the existing motor control center and the existing PLC control panel in the Operations and Maintenance Building. Interconnection drawing between the valve actuator and the PLC will be by BES for inclusion in the design package.
- Develop process control strategy to be incorporated with the overall system. This strategy will be in the form of a technical memo listing, in plain language, limitations or restrictions on the use of the drain back system. BES will convert this document to instructions for the PLC and SCADA system programmers.
- Develop and prepare construction estimates and schedules.
- Prepare structural calculations for building permit.
- Prepare construction plans and specifications.
- Provide support services during bid, construction, startup and testing.

The scope of services is divided into the following tasks:

Task 100 - Project Management

Task 200 - Design Phase Services

Task 300 - Construction Phase Services

Task 400 - Startup/Closeout Services

<u>Project Management (Task 1)</u> will develop and implement the administrative procedures that will be used to plan and monitor the progress of the project throughout the duration of the contract.

<u>Design Phase Services (Task 2)</u> entails the establishment of design criteria, followed by an evaluation of alternative methods of achieving drain-back of the PFM and associated modifications to the existing facilities. Following completion of the preliminary design, efforts will focus on the development of the final design documents including drawings and specifications, construction cost estimate, and overall project schedule.

The scope also includes <u>Construction Phase (Task 3)</u> and <u>Startup/Closeout (Task 4)</u> Services to provide technical engineering services from bidding through initial operation of the facility.

TASK 100 - PROJECT MANAGEMENT

Project management services will develop and implement administrative procedures that will be used to plan and monitor the progress of the project throughout the duration of the contract. Specific items to be addressed as part of this task include:

- Ongoing Project Management: Consultant will provide ongoing project management activities for the project, including design management. Typical activities include the coordination of the consultant project team, project resources, the overall budget and quality management.
- Project Monitoring and Progress Reporting: Consultant will monitor the progress of the project and provide BES with a monthly Project Status report that will include:
 - Progress Report, summarizing work performed, and forecasted work efforts.
 - Budget Report, showing budget spent against progress (earned value) and estimated budget to complete the work.
 - Progress Schedule.
 - Invoice with Monthly Subconsultant Payment and Utilization Report (MUR).
- Bi-Weekly E-Mail Reports: Consultant will provide weekly email reports to the BES Project Manager.
- Quality Management: Consultant will manage and execute quality control procedures.
 Consultant will maintain a rolling decision log during design, updated as needed and kept in a historic register.

Subtask 110 Assumptions:

- 1. Project Duration 25 months (11 months for design, 14 months for Construction)
- 2. Meeting minutes, and associated action items, will be distributed electronically by the Consultant to BES and internal staff.

Subtask 110 Meetings:

1. None.

Subtask 110 Deliverables:

- 1. Meeting Minutes.
- 2. Bi-Weekly E-Mail Reports (22 during design only).
- 3. Monthly Invoice with MUR and Project Status Reports (25).

TASK 200 – DESIGN PHASE SERVICES

This task is comprised of the design elements necessary in establishing the design criteria and taking the design to completion.

Subtask 200 General Assumptions:

- 1. The Consultant, at its discretion, may elect to show portions of the work on new drawings wholly dedicated to this project, and/or make use of existing drawings to overlay the new work. BES' strong preference is to modify existing drawings.
- 2. Electrical plan views will likely consist of existing plans, with new work shown bold. Items shown as existing which are not related to the new work will not be field verified.
- 3. All specifications shall be in 6-digit CSI format.
- 4. Drawings identified to be provided by BES will be provided to Consultant five (5) working days prior to all Design Submittal dates.

186316

SUBTASK 210 - Preliminary Design Development

Preliminary Design Development will focus on establishing the design criteria and conducting an alternatives analysis to select a project approach.

Design Criteria Development:

Primary efforts for the Design Criteria Development include:

- Gather and Review Data: Upon notice to proceed, Consultant will immediately gather and review data to support the development of design criteria.
- Focus Meeting: Consultant will leading a Focus Meeting with BES staff in the Portland area to establish the project design criteria and associated alternatives. Consultant will prepare minutes associated with the Focus Meeting to summarize key design criteria and standards that will be used for the project design. Discussions will include topics, such as:
 - Project Requirements.
 - Key Issues/Drivers.
 - Project Expectations.
 - Existing System Conditions (equipment, materials of construction, operational and maintenance issues, electrical and control components, etc).
- Formalize Project Design Criteria: Following BES approval of the meeting minutes, one brief Technical Memorandum (TM1 Project Design Criteria) will be prepared to formalize the project design criteria, and selected alternatives to be evaluated. Following submission and City review of TM1, Consultant will lead a Design Criteria Review Workshop to reaffirm design criteria and associated design alternatives to be evaluated. Upon completion of the Design Criteria Workshop, the design team will finalize TM1.
 - Design criteria shall include items such as hydraulics, capital cost, service life, ease of operation and maintenance, minimizing impacts to existing pumps, reducing the period of time required for drain back, minimizing grit accumulation in pump discharge piping and proposed drain piping during drain back, and, if there are concerns, generation of odors that impact the public.

BES approval of meeting minutes, and associated TM1, is critical to define the project prior to moving into alternative analysis.

Alternatives Analysis:

Primary efforts for the Alternatives Analysis include:

- Alternative Analysis: With the design criteria and alternatives established, Consultant will proceed with the detailed investigation of the selected alternatives, and their ability to achieve the established evaluation criteria. The evaluation shall be based on design criteria.
- Alternative Summary and Selection: One Technical Memorandum (TM2 Alternatives Analysis) will be prepared to summarize the results of the alternatives analysis to reach a consensus on the preferred alternative that will be carried forward to design. TM2 shall include hydraulic calculations and a drawing list to reaffirm level of effort in advancing the design.
- Alternatives Analysis Workshop: Following submission and review of TM2, Consultant will lead an Alternatives Analysis Workshop to solidify the preferred alternative. Upon completion of the workshop, Consultant will finalize TM2.

BES approval of meeting minutes, and associated TM2, is critical to define the project prior to moving into design.

Subtask 210 Assumptions:

- 1. Maximum of three (3) alternatives will be investigated.
- 2. Meeting minutes, and associated action items will be distributed electronically by the Consultant to BES and internal staff.
- 3. BES review of each draft TM Duration (up to 10 working days).
- 4. Electrical and Instrumentation &Control (EI&C) components will not be evaluated or incorporated into the Technical Memoranda.

Subtask 210 Meetings:

- 1. Focus Meeting: Project Design Criteria and Alternatives.
- 2. Design Criteria Review Workshop.
- 3. Alternatives Analysis Review Workshop.

Subtask 210 Deliverables:

- 1. Meeting Agenda and Minutes (3).
- 2. TM1: Project Design Criteria (Draft and Final).
- 3. TM2: Alternatives Analysis (Draft and Final).

SUBTASK 220 - 60% Design Development

Upon completion of the Preliminary Design, Consultant will begin production of construction documents. Primary efforts for the 60% Design Development include:

- 60% Design Development: Consultant will begin production of the construction documents (drawings and specifications). Under this task, piping layout and drain valve selection decisions will be made and 60% construction drawings and specifications will be developed.
- 70% EI&C Development: Paralleling the 60% Design Development effort, Consultant will work with BES in the development of the process control strategy to an approximately 70% level. This document will provide the functional requirements needed for BES to proceed with the detailed design of their project components (control narratives, software development, P&ID's, valve interconnection diagrams, PLC panel modifications, etc). Emphasis will be placed on including in the document information needed by BES for their design work.
- Focus Meeting: To assist the 70% EI&C development effort, Consultant will lead one (1) focus meeting with BES staff. Meeting will be held via teleconference. Members from Carollo and its electrical subconsultant will participate.
- 60% Design Submittal: At the completion of the 60% Design Development, 60% level construction documents (drawings and specifications), overall project schedule (design through startup), updated drawing list, and estimate of probable construction cost will be submitted to BES.
- 60% Design Review Workshop: Following submission of the 60% design drawings and specifications, Consultant will lead a 60% Design Review Workshop. The workshop will document approval and/or initial feedback on the design from BES staff.

Subtask 220 Assumptions:

9 10 9 8 5

- 1. BES 60% Review Duration: 15 working days.
- 2. 60% Design Review Workshop: Members from the Consultant's electrical subconsultant will participate via teleconference.
- 3. Consultant will assist the BES PM with the preparation of the BES Best Practices Design Submittal Checklist for 60% design completion. All required elements from the checklist, commensurate with the Summary of Services, herein, will be included in the submittal package.

Subtask 220 Meetings:

- 1. Focus Meeting (1):
 - a. EI&C Development.
- 2. 60% Design Review Workshop.

Subtask 220 Deliverables:

- 1. Meeting Agenda and Minutes (2)
- 2. 60% Design Submittal (pdf and 15 sets specs and 11x17 drawings; one CAD file from each discipline to check title block and BES CAD standards):
 - a. 60% Design Drawings (including piping layouts, , Electrical Schematics, and Process Control Strategy).
 - b. 60% Specifications
- 3. Overall Project Schedule (pdf)
- 4. Preliminary Estimate of Probable Cost of Construction (pdf)

SUBTASK 230 - 100% Design Development

Upon completion of the 60% Design Development, Consultant will continue production of construction documents, to achieve "near-complete" package of construction documents ready for a detailed, multi-discipline check of the documents by our Quality Management Team. Primary efforts for the 100% Design Development include:

- 100% Design Development: Upon completion of the 60% design development, detailed design will continue for the 100% design submittal. Consultant will continue the development of the construction documents (drawings and specifications) to directly reflect BES 60% review comments and provide sufficient detail for near complete set of documents.
- Consultant will continue to work with owner in development of the process control strategy to a 100% level. This document will provide the functional requirements needed for BES to finalize detailed design of their project components (software development, P&ID's, valve interconnection diagrams, PLC panel modifications, etc).
- Provide 100% design deliverables.
- Focus Meetings: Consultant will lead two (2) Focus Meetings with BES Staff to address specific technical developments that arise during the course of the 100% Design. Meetings will be held via teleconference. Members from Carollo and its electrical subconsultant will participate.

- - Special Inspection Documentation: Prepare special inspections documents for discussion with BES.
 - Internal Review: Prior to submitting the 100% design documents, Consultant will conduct internal, multi-discipline check of the construction documents by a Quality Management Team.
 - 100% Design Submittal: At the completion of the 100% Design Development, 100% level construction documents (drawings and specifications), overall project schedule (design through startup), and estimate of probable construction cost will be submitted to BES.
 - 100% Design Review Workshop: Following submission of the 100% design drawings and specifications, Consultant will lead a 100% Design Review Workshop. The workshop will document approval and/or continued feedback on the design from BES staff.
 - Permit Drawings: Prepare a permit set of drawings for the BES project manager to submit to BDS to support the Commercial Building Permit application. Drawings will be sealed versions of the 100% drawings.
 - Consultant will prepare final (sealed) structural calculations for the BDS Commercial Building Permit application and review.

Subtask 230 Assumptions:

- 1. BES 100% Review Duration: 15 working days.
- 2. 100% Design Review Workshop: Members from the Consultant's electrical subconsultant will participate via teleconference.
- 3. Consultant will assist the BES PM with the preparation of the BES Best Practices Design Submittal Checklist for 100% design completion. All required elements from the checklist, commensurate with the Summary of Services, herein, will be included in the submittal package.

Subtask 230 Meetings:

- 1. Focus Meetings (2):
 - a. Subject to be determined (TBD).
 - b. Subject TBD.
- 2. 100% Design Review Workshop.

Subtask 230 Deliverables:

- 1. Meeting Agenda and Minutes (3).
- 2. 100% Design Submittal (pdf and 15 sets specs and 11x17 drawings):
 - a. 100% Design Drawings (All disciplines, 100% P&IDs, and Process Control Strategy).
 - b. 100% Specifications.
- 3. Responses to BES 60% Design Review Comments (pdf).
- 4. Final Overall Project Schedule (pdf).
- 5. Final Estimate of Probable Cost of Construction (pdf).

186316

- 6. BDS Permit Application Documents:
 - a. 100 % Design Drawings (four sets of full size, stamped).
 - b. 100 % Specifications (two sets of 8-1/2 x 11, stamped).
 - c. 100% Structural Calculations (two sets, stamped).

SUBTASK 240 - Final Design Development

This task serves as the final effort in delivering a final, biddable set of construction documents. The design team will incorporate comments received on the 100% design review submittal package. Consultant will also provide assistance during the BDS permit review as described below:

Primary efforts for the Final Design Development include:

- Final Design Development: Upon completion of the 100% design development review, detailed design will continue for the Final design submittal. Consultant will finalize development of the drawings and specifications (contract documents) to directly reflect BES 100% review comments.
- Final Design Submittal: At the completion of the Final design development, final "bid ready" drawings and specifications (contract documents), will be submitted to BES.
- BDS Review Assistance: Assist BES with answering questions, or responding to review checksheets from BDS. Revise and resubmit drawings, specs or calculations as necessary

Subtask 240 Assumptions:

1. None.

Subtask 240 Meetings:

1. None.

Subtask 240 Deliverables:

- 1. Final Design (Bid Documents) Submittal:
 - a. Drawings (One set of reproducible full size vellum of Final stamped drawings; 11x17 drawings, pdf; CAD files).
 - b. Specifications (One set of $8-1/2 \times 11$ stamped specs, and MS Word files).
- 2. Responses to BES 100% Design Review (pdf).
- 3. BDS Review Assistance. Consultant will revise and resubmit drawings, specs or calculations as necessary: Allowance of \$3,200.

TASK 300 - CONSTRUCTION PHASE SERVICES

The Consultant will provide engineering services during construction phase, spanning from the bid advertizing through notice-to-proceed (NTP) and engineering support throughout construction. This task includes the following subtasks:

SUBTASK 310 - Advertise-NTP

Primary efforts for the Advertise-NTP include:

- Pre-Bid Conference: Attend pre-bid conference/site visit.
- Bid Assistance: Assist the BES with preparation of written responses to Bidders questions and the preparation of any required addenda.

Subtask 310 Assumptions:

- 1. Pre-Bid Conference: Includes representation from Mechanical and Electrical design disciplines. 3 hour conference.
- 2. Bid Assistance: Allowance of \$3,500.

Subtask 310 Meetings:

1. Pre-Bid Conference.

Subtask 310 Deliverables:

- 1. Meeting Notes from Pre-Bid Conference.
- 2. Responses to Bid Questions.
- 3. Proposed Addenda as needed.

SUBTASK 320 - Engineering Support

Primary efforts for Engineering Support include:

- Conformed Drawings: Prepare conformed drawings and technical specifications.
- Design Support: Provide design support services, such as submittal reviews, clarifications for RFIs, assistance as needed with design clarifications and change orders, as requested meeting attendance, and periodic site visits and inspections. Structural engineer will review and approve any structural modifications.
- Structural Inspections: Conduct any BDS required structural inspections. Prepare and submit reports documenting compliance with building permit required Engineer of Record inspections.
- Final Field Inspection: Perform final field inspection.

Subtask 320 Assumptions:

- 1. Conformed Documents:
 - a. General Allowance of .5 hours/sheet, 20 sheets.
 - b. Conformed drawings and specs (CAD and pdf files of the drawings and MS Word files of the specifications).
- 2. Design Support:
 - a. General Allowance: 6 Month Duration, \$3,000 per month.
 - b. Submittal Review: 15 Submittals at 3 hours each.
 - c. RFI's: 20 RFI's @ 1.5 hours each.
 - d. Design Clarifications and Change Order Assistance: Total of 8 at 4 hours each.
- 3. Structural Inspections:
 - a. General Allowance of 32 hours.
- 4. Final Field Inspections:
 - a. Mechanical: Inspection will take place on one instance, 8 hours.
 - b. Electrical: Inspection will take place on one instance, 8 hours.
 - c. Structural: Inspection will take place on one instance, 8 hours.

Subtask 320 Meetings:

3 1 1 1 1 1 1 8 I

- 1. General Meetings, as requested.
- 2. Site Visits, as requested.
- 3. BDS Structural Inspections.
- 4. Final Field Inspection.

Subtask 320 Deliverables:

- 1. Conformed Documents.
- 2. Submittal / Shop Drawing Review.
- 3. Request For Information (RFI) Responses.
- 4. Design Clarifications / Change Orders.
- 5. BDS required EOR structural inspection reports

TASK 400 - STARTUP/CLOSEOUT SERVICES

Primary efforts for the startup/closeout include:

- General Startup Assistance; Participate and assist the Owners Representative, as requested, during the startup and testing.
- Drain-Back Procedure Assistance: Assist with drain back procedure the first three times the procedure is used, at the Owner's discretion.
- O&M Manual: Prepare a narrative O & M manual for drain back procedure.
- Record Drawings: If requested by the BES PM, prepare "as-built" drawings incorporating all construction changes documented in the Construction Contractors redlined "as-built" markups. Final CAD and pdf files are to be submitted to the BES PM.

Subtask 400 Assumptions:

- 1. General Startup Assistance:
 - a. General Allowance of 40 hours.
- 2. Drain-Back Procedure Assistance:
 - a. 3 instances, 8 hours each instance.
- 3. O&M Manual:
 - a. General Allowance of 20 hours.
- 4. Record Drawings:
 - a. Record Drawings, if requested, are anticipated to be comprised of CAD drafted field markups of 20 drawings @ 1 hrs/sheet CAD.
 - b. Record drawings (CAD and pdf files of the drawings).

Subtask 400 Meetings:

1. Record Drawing Review.

Subtask 400 Deliverables:

- 1. O&M Manual.
- 2. Record Drawings.

CONSULTANT PERSONNEL

The Consultant shall assign the following personnel to do the work in the capacities designated:

NAME	ROLE ON PROJECT
Mike Zappone	Project Manager
Matt Sprick	Project Engineer
Gary Sagehorn	Structural Engineer

SUBCONSULTANTS

The Consultant shall assign the following subconsultants to perform work in the capacities designated:

NAME	ROLE ON PROJECT	SUBCONTRACT AMOUNT
ArcSine Engineering	EI&C	\$38,500
Alcantar and Assoc	AutoCAD, Cost Est, Quality Control	\$31,600

The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its Proposal. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: http://www.portlandoregon.gov/bibs/45475.

COMPENSATION

The maximum that the Consultant can be paid on this contract is \$225,700 (hereafter the "not to exceed" amount.). The "not to exceed" amount includes all payments to be made pursuant to this contract, including reimbursable expenses, if any. Nothing in this contract requires the City to pay for work that does not meet the Standard of Care or other requirements of the Contract. The actual amount to be paid Consultant may be less than that amount.

The Consultant is entitled to receive progress payments for its work pursuant to the Contract as provided in more detail below. The City will pay Consultant based on these invoices for acceptable work performed and approved until the "not to exceed" amount is reached. Thereafter, Consultant must complete work based on the Contract without additional compensation unless there is a change to the scope of work.

Any estimate of the hours necessary to perform the work is not binding on the City. The Consultant remains responsible if the estimate proves to be incorrect. Exceeding the number of estimated hours of work does not impose any liability on the City for additional payment.

If work is completed before the "not to exceed" amount is reached, the Consultant's compensation will be based on the Consultant's bills previously submitted for acceptable work performed and approved.

PAYMENT SCHEDULE

The estimated task breakdown of the "not to exceed" amount is shown in the Professional Services table below. Consultant may reallocate compensation between tasks with the approval of the BES project manager, provided the total "not to exceed" amount is not exceeded.

TASK	DESCRIPTION	NOT TO EXCEED AMOUNT
100	Project Management	\$ 28,000
200	Design Phase Services	\$ 130,000
300	Construction Phase Services	\$ 53,600
400	Startup/Closeout Phase Services	\$ 14,100
***************************************	TOTAL CONTRACT AMOUNT	\$ 225,700

The contract/task amounts noted above include \$31,600 in subcontracting to M/W/ESB certified firms, representing a 14% M/W/ESB participation.

Hourly Rates

The billing rates shall not exceed those set forth below:

Employee	Salary \$/hr	Rate \$/hr
Carollo Engineers		
Engineering	·	
Bob Eimstad	70.00	217.00
David Geisler	49.61	153.80
James Krumwied	44.71	138.60
Todd Hackett	65.91	204.32
Anthony Morroni	70.00	217.00
Yousef Nouri	43.67	135.38
Gary Sagehorn	68.79	213.25
Matthew Sprick	30.58	94.80
Wei Thang Tzeng	55.64	172.48
Dave Tsai	63.46	196.73
Tyler Whitehouse	36.92	114.45
Mike Zappone	58.50	181.35
CAD Tech		4
Davie Enriquez	37.25	115.48
Mike Gabel	37.65	116.72
Support Staff		
Patricia Burrell	31.75	98.43
Karen Lopez Hooge	22.00	68.20
Patricia Losacco	26.50	82.15
Lish Moreau	21.50	66.65
Sue-Ellen Schiesser	27.50	85.25
rc Sine Engineers		
Engineering		•
Chris Heidl	32.50	100.75
Doug McHaney	55.90	173.29
Cary Moore	31.60	97.96

Employee	Salary \$/hr	Rate \$/hr
Arc Sine Engineers (cont.)		
CAD Tech.	20.00	62.00
Joe Jones	16.00	49.60
Adan Martinez	19.30	59.83
Ryan Oliver	16.60	51.46
Noah Pollard		
Support Staff	14.50	44.95
Penny Garrett	15.60	48.36
Colleen Morris		
Alcantar & Associates	\$45.00	144.00
Engineering	\$44.00	136.40
Marcela Alcantar		
Doug Sowles	\$38.00	121.60
CAD Tech	\$28.00	86.80
Eduardo Alcantar		
Marcy Alcantar	18.00	55.80
Support Staff		
Ana Alvarado		

Standard Reimbursable Costs

The following costs will be reimbursed without mark-up:

• Photocopying/reproduction for reproduction of required drawings, reports, specifications, bidding documents.

Subconsultant Costs

Compensation for subconsultants shall be limited to the same restrictions imposed on the Consultant. The maximum markup on subconsultant services shall not exceed 5%.

Progress Payments

On or before the 15th of each month, the Consultant shall submit to the City's Project Manager an invoice for work performed by the Consultant during the preceding month. The invoice shall contain the City's Contract Number and set out all items for payment including, but not limited to: the name of the individual, labor category, direct labor rate, hours worked during the period, and tasks performed. The Consultant shall also attach photocopies of claimed reimbursable expenses, if applicable. The Consultant shall stamp and approve all subconsultant invoices and note on the subconsultant invoice what they are approving as "billable" under the contract. The billing from the prime should clearly roll up labor and reimbursable costs for the prime and subconsultants – matching the subconsultant invoices. Prior to initial billing, the Consultant shall develop a billing format for approval by the City.

The City shall pay all amounts to which no dispute exists within 30 days of receipt of the invoice. Payment of any bill, however, does not preclude the City from later determining that an error in payment was made and from withholding the disputed sum from the next progress payment until the dispute is resolved.

The Consultant shall make full payment to its subconsultants within 10 business days following receipt of any payment made by the City to Consultant.

ACH Payments

It is the City's policy to pay its Consultant invoices via electronic funds transfers through the automated clearing house (ACH) network. To initiate payment of invoices, Consultants shall execute the City's standard ACH Vendor Payment Authorization Agreement which is available on the City's website at http://www.portlandoregon.gov/bfs/article/409834?

Upon verification of the data provided, the Payment Authorization Agreement will authorize the City to deposit payment for services rendered directly into Consultant accounts with financial institutions. All payments shall be in United States currency.

PAYMENT TERMS: Net 30 Days

9 (1984

WORKERS' COMPENSATION INSURANCE STATEMENT

IF YO	OUR FIRM	I <u>HAS</u> CURRENT WORKERS' COM	ENSATION INSURANCE,	CONTRACTOR MUST SIGN HERE:
I, und		n authorized to act on behalf of entity de		rtify that this entity has current Workers'
Contra	actor Signa	ture:	Date:	Entity:
Colin Shares a vene	-President - Addition and the Security of the		erik distantukan parati 1970-risiaka alia pakin pra sina nereseti sensiminen peresen dinaseri dan dan kapada men	
COM	PLETE TH	DOES NOT HAVE CURRENT WOR IE FOLLOWING INDEPENDENT C	ŒRS' COMPENSATION II NTRACTOR CERTIFICAT	NSURANCE, CONTRACTOR MUST FION STATEMENT:
		t contractor, I certify that I meet the follo		
1. The	e individua ovides labor	or business entity providing labor or ser or services for which such registration is	ices is registered under ORS (required;	Chapter 701, if the individual or business entity
tax	deral and sta return werd vious year;	aned for the previous year it the individ	usiness or a business Schedulo al or business entity performed	e C or form Schedule F as part of the personal income d labor or services as an independent contractor in the
bus eng	iness. Lack iness entity aged in an	pr when an individual of business entity	iles a Schedule F as part of the enortable on Schedule C an in	to be provided by an independently established expersonal income tax returns and the individual or idividual or business entity is considered to be circumstances exist.
Bo a Milado do Parlinguago ao a se se	A.	The labor or services are primarily caperforms the labor or services, or are as the location of the business;	ried out at a location that is se orimarily carried out in a speci	parate from the residence of an individual who fic portion of the residence, which portion is set aside
MANAGEMENT WATER	В.	Commercial advertising or business of the individual or business entity has a	ords as is customary in operation trade association membership:	ng similar businesses are purchased for the business, o
NYARABARANA AND AND AND AND AND AND AND AND AND	C.	Telephone listing and service are use by an individual who performs the la	for the business that is separator or services;	te from the personal residence listing and service used
	D.	Labor or services are performed only	oursuant to written contracts;	
Michigan	E.	Labor or services are performed for to	o or more different persons wi	ithin a period of one year; or
	F.	The individual or business entity assu evidenced by the ownership of perfor to the labor or services to be provided	nes financial responsibility for nance bonds, warranties, errors	defective workmanship or for service not provided as and omission insurance or liability insurance relating
	Contract	or Signature		Date
OR CI	TY USE O	return someonic consistence and the second consi		er innesten demonstrater, des equients rentembours and all deviction encountries to be the contract of the con
usiness	entity that	chach contractor standards. As used in	arious provisions of ORS Cha on shall be considered to perfor	E WORKER'S COMPENSATION INSURANCE pters 316, 656, 657, and 701, an individual or rm the labor or services as an "independent g standards:
The in	ndividual o bor or servi	r business entity providing the labor or so ces, subject only to the right of the perso	vices is free from direction an for whom the labor or service	d control over the means and manner of providing es are provided to specify the desired results;
The ir occup	ndividual or pation licens	business entity providing labor or services required by state law or local government.	es is responsible for obtaining ent ordinances for the individu	all assumed business registrations or professional ual or business entity to conduct the business;
The in	ndividual or or services;	business entity providing labor or service	es furnishes the tools or equipr	nent necessary for performance of the contracted
The in	ndividual or	business entity providing labor or service	s has the authority to hire and	fire employees to perform the labor or services;
Payme an ann	ent for the l nual or perio	abor or services is made upon completion odic retainer.	of the performance of specific	portions of the project or is made on the basis of
	City Proje	ct Manager Signature		Date

CONSULTANT SIGNATURE:

9 (492)

This contract may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same Agreement.

The parties agree the City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

I, the undersigned, agree to perform work outlined in this contract in accordance to the STANDARD CONTRACT PROVISIONS, the terms and conditions, made part of this contract by reference, and the STATEMENT OF THE WORK made part of this contract by reference; hereby certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; hereby certify that my business is certified as an Equal Employment Opportunity Affirmative Action Employer and is in compliance with the Equal Benefits Program as prescribed by Chapter 3.100 of Code of the City of Portland; and hereby certify I am an independent contractor as defined in ORS 670.600.

CAROLLO ENGINEERS, INC		
BY:	Date:	8/28/13
Name: Brian Matson		
Title: Senior Vice President		
BY:	Date:	8/28/13
Name: Mike L. Zappone		
Title: Associate Vice President		

CONTRACT NUMBER: CONTRACT TITLE: Portsmouth Forcemain Drain-Back Improvements CITY OF PORTLAND SIGNATURES: Ву: N/A Date: Bureau Director By: N/A Date: Chief Procurement Officer Ву: Date: Elected Official Approved: Ву: Date: Office of City Auditor

APPROVED AS TO FORM

Approved as to Form:

Ву:

Date: 10/1/13