

Attachment A: Proposed Scope of Work for the John Day WWTP, Final Design and Construction Engineering

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BACKGROUND

The general scope of engineering services for City of John Day’s (“City”) new wastewater treatment facility (the “Project”) includes engineering design and construction. The Project will include all necessary access roads, new utilities connecting the treatment plant, and associated buildings necessary for daily use, as described in Addenda 1-3 to the *2019 Preliminary Engineering Report* (the “PER”). The PER currently on file with USDA will need to be updated to reflect the current project, in addition to a cost estimate update.

USDA funding will impact the final design process. City cannot solicit for the package treatment plant until USDA has committed and executed funding to City.

TASK 1 PROJECT MANAGEMENT

TASKS 1.1 PROJECT COORDINATION AND MANAGEMENT, QA/QC, SCHEDULE MANAGEMENT AND MEETINGS

Objective: Management of the contract for services that include, without limitation, monthly billings, phone and email correspondence. Management staff will provide an independent review of the plans and specifications prior to release of the information being presented to City. This review helps provide verification that the plans and specifications are consistent with City’s current engineering standards.

TASKS 1.2 PROJECT KICK-OFF MEETING

Objective: Kickoff meeting (within 14 days from the notice to proceed from City). The meeting will be virtual (online) and will include an overview of the plan of action from that day forward, verify contact information for project managers, and a discussion of any outstanding concerns, internal team roles, and responsibilities along with scheduling and critical deadlines for the Project.

Deliverables:

- Kick-off meeting agenda and minutes.

TASKS 1.3 MONTHLY REPORTING AND INVOICES

Objective: Project reporting and monthly invoices.

Deliverables:

- Monthly invoices and project updates.

TASKS 1.4 TEAM AND SUBCONTRANTOR COORDINATION

Objective: The project manager will coordinate with internal design team and required sub-consultants for fieldwork, billing, and overall Project needs for the duration of the Project.

Deliverables: Engineer will provide the following deliverables as part of this task:

- Monthly billings.
- QA/QC review of project deliverables.

TASK 2 ENGINEERING SERVICES

The following subtasks will be completed in performance of this task:

TASK 2.1 ENGINEERING - DESIGN (WWTP)

Objective: To provide a fully operational wastewater treatment plant (“WWTP”) at the site selected by City while utilizing a package plant system provider and general contractor for construction purposes.

TASK 2.1.1 DATA DEVELOPMENT AND REVIEW

Objective: Engineer will review existing information and drawings, provided by City, and will identify on existing utility maps the location of utilities in the alignment between the treatment plant and the effluent disposal site that require physical locating. Utility locating, horizontal and vertical mapping, and integration into the design basemap will be provided by another contractor. Utility location and depth information will be provided to Engineer as part of the updated site survey files for use in the site and effluent piping designs.

Deliverables:

- Monthly invoices and project updates.

Assumptions:

- Marked up utility background maps for another contractor to complete utility potholing.
- Potholing utilities will be the responsibility of City.

TASK 2.1.2 GEOTECHNICAL REPORT INPUT

Objective: Engineer will be allowed to comment on the draft and final geotechnical report.

TASK 2.1.3 TOPOGRAPHIC AND UTILITY SURVEY INPUT

Objective: Engineer will be allowed to comment on the draft and final work products. Engineer scope of work for this task includes coordination of survey needs and coordination of shared basemap files.

Assumptions:

- Topographic map provided by a licensed surveyor.

TASK 2.2 DRAFT FINAL BASIS OF DESIGN REPORT

Objective: Engineer shall prepare a draft Basis of Design Report (“BDR”). The BDR will further refine the design so that final detailed design can proceed efficiently. Following review of the draft BDR by City, responses to comments shall be developed and incorporated into a final BDR.

The BDR is anticipated to contain the following information (suggested deviations will be reviewed by City):

- Code review
- Sampling plan and summary of influent wastewater characteristics
- Process design loadings for each process area;
- Identify critical water quality criteria;
- Preliminary facility sizing and a site layout;
- Preliminary hydraulic profile
- Preliminary P&IDs
- Confirm process size and quantity of tanks;
- Detention times;
- Process equipment size and quantity;
- Alternative analysis for effluent piping alignment
- Alternative analysis for sludge dewatering
- Chemical dosage requirements;
- Pipeline sizes and review building sizes;
- General site plan requirements;
- Ingress and egress; and
- General electrical load information.

The BDR will be organized into chapters based on the proposed Table of Contents, as follows (suggested deviations will be reviewed by City):

1.0 Introduction

- 1.1 Executive Summary
- 1.2 Purpose of the Basis of Design Report
- 1.3 Background
- 1.4 Related Technical Memoranda

2.0 General Design Criteria

- 2.1 Code Review
- 2.2 Civil/Site Development
 - 2.2.1 Survey Datum
 - 2.2.2 Grading
 - 2.2.3 Demolition
 - 2.2.4 Access and Egress
- 2.3 Site Utilities
 - 2.3.1 Water
 - 2.3.2 Firefighting Water
 - 2.3.3 Sewer
 - 2.3.3.1 Storm Drains
 - 2.3.3.2 Plant Drains
 - 2.3.4 Natural Gas
 - 2.3.5 Compressed Air Systems
 - 2.3.6 Electrical
 - 2.3.7 Communications
- 2.4 Piping
 - 2.4.1 Pipe Types
 - 2.4.2 Fitting and Valves
 - 2.4.3 Cathodic Protection (if required)
- 2.5 Site Plan
- 2.6 Process Flow Diagram
- 2.7 Hydraulic Profile
- 2.8 Preliminary P&ID

3.0 Treatment Processes

- 3.1 Headworks
 - 3.1.1 Influent PS
 - 3.1.2 Screening
 - 3.1.3 Grit Removal
- 3.2 Sequencing Batch Reactor
 - 3.2.1 SBR Cells (w/WAS pumps)
 - 3.2.2 Aerobic Digestion Cells
 - 3.2.3 Sludge Holding Cells (w/Dewatering feed pumps)
 - 3.2.4 Post-SBR Equalization Cells (w/equalization pumps)
- 3.3 Blower Building
- 3.4 Tertiary Filters and Backwash Pumps
- 3.5 UV and Effluent pumps
- 3.6 Dewatering Buildings
 - 3.6.1 Dewatering Equipment Alternatives Evaluation

4.0 Operations Building

- 4.1 Wet Chemistry Laboratory
- 4.2 Control Room

- 4.3 Supervisors Office
- 4.4 Locker Room, Shower, Restroom
- 4.5 Exterior Elevation
- 4.6 Floorplan

5.0 Effluent Pipeline

- 5.1 Materials
- 5.2 Alignment
- 5.3 Utility investigation

6.0 Electrical

- 6.1 Plant Power Distribution Overview (Preliminary Single Line Diagram)
- 6.2 Codes, Standards and Regulations
- 6.3 Electrical Area Classification (NFPA 820)
- 6.4 Wires, Cable, and Duct Bank
- 6.5 Equipment
 - 6.5.1 Substations
 - 6.5.2 Motor Control Centers
 - 6.5.3 Panel Boards
 - 6.5.4 Distribution Transformers
 - 6.5.5 Raceways
 - 6.5.6 Grounding
 - 6.5.7 Lighting

7.0 Controls

- 7.1 Controls and Communications Overview
- 7.2 Codes, Standards and Regulations
- 7.3 Control System Strategy

8.0 Buildings (Dewatering, Headworks, Operations, Electrical)

- 8.1 Code Criteria
- 8.2 Occupancy and Use
- 8.3 Building Type and Construction

9.0 Preliminary Opinion of Probable Cost

10.0 Preliminary Construction Schedule

- A Draft Report shall be developed, documenting the work of this task. Following review of the draft BDR by City, responses to comments shall be developed and incorporated into a final BDR.

Deliverables:

- Draft BDR (Electronic, Adobe Acrobat format).
- Responses to draft BDR review (Electronic, Adobe pdf format).
- Final BDR (Electronic, Adobe Acrobat format).

Assumptions:

- City has information on its property and a hazardous waste assessment is not required.
- Influent sampling will be completed by plant staff. Sample testing and analysis is by others.
- Code review consists of the following:
 - Building Occupancy Classification
 - Construction Classification(s)
 - Hazardous Materials Storage and Use including Contaminated Soils
 - Americans With Disabilities Act (ADA) Requirements
 - Energy Code Compliance
 - Fire Code Compliance (NFPA 820)
 - Building Code
 - Electrical Code
 - Stormwater requirements
 - Planning department requirements (e.g. setbacks, appearance, other per local requirements, available at <https://johnday.municipalcodeonline.com/#>).

TASKS 2.2.1 BDR DRAWINGS

Objective: Engineer will update the preliminary list of construction drawings to reflect the current status of the Project. Drawings that will be provided (some of which may be bound into the BDR text) consist of:

- General Sheets
 - The cover sheet and list for drawings, abbreviation, and symbol sheets. A flow schematic and hydraulic profile as part of the general sheets will be developed.
 - Flow Diagrams and Preliminary Process and Instrumentation Diagrams (“P&IDs”)
 - Develop a narrative description of the process and control strategy, including control and monitoring schemes, alarm conditions, and process interfacing.
 - Develop the flow and the P&IDs depicting the narrative graphically. Drawings will focus on the “bottom” section of the P&IDs (e.g. equipment, piping).
- Building/Structure Plans, Elevations, and Sections
 - Depict major process equipment, doorways, and egress paths, required clearances, structural features (e.g. columns.), and key dimensions.
 - Provide cross-sections or elevations for more complicated structures or where elevations may be important to the overall concept.
 - Develop building elevations and key sections to depict the planned appearance of the facilities exterior and important interior features.
- Preliminary Site Plan
 - Prepare the site plan, locating new structures and features in relation to existing facilities, property lines, and access roads.

TASKS 2.2.2 SITE BUILDINGS

Objective: Engineer will conduct a programming workshop to gain City input on functionality, sizing, and aesthetics of the proposed buildings onsite.

TASK 2.3 30% DESIGN (DESIGN DEVELOPMENT)

Objective: The purpose of this task is to translate the BDR into a preliminary design expressed in the form of 30% drawings, as well as a more developed specification table of contents, an opinion of probable construction cost (“OPCC”). The 30% design will serve as the design team’s basis for detail design.

Drawings will show the arrangement of the new equipment systems including the location of major features, limits of construction and interface with existing pipelines, power and instrumentation. Drawing backgrounds will be developed based on the topographic survey conducted as part of the Project. When available, existing utilities will be shown on the drawing backgrounds based on the results of the subsurface utility investigation. Specifications will consist of draft technical specifications for major components of work.

Drawings will be prepared in electronic format and organized as follows:

- **General** – Cover title sheet, location map, vicinity map, drawing index, general notes, symbols and abbreviations, design criteria, process flow diagrams, hydraulic profile.
- **Civil** – Engineer to provide site plan, survey data, site grading and paving plans, storm drainage plans, yard piping plans, and profiles.
- **Structural** – Structural design standards, general notes, plans and sections for treatment plant structures, buildings, and details.
- **Architectural** – Architectural design standards, general notes, plans and elevations for treatment plant structures, buildings, and details.
- **Instrumentation and Control** – Include instrumentation symbols and abbreviations, P&ID schematics, SCADA details, schematics, and details.
- **Mechanical** – General mechanical symbols, abbreviations and general notes, piping and equipment schedules, plans and sections for mechanical systems, and details.
- **HVAC, Building Plumbing, Fire Protection** – General symbols and abbreviations, general notes, plans and sections for HVAC, building plumbing, plan sheets for typical fire protection limited layouts, and details.
- **Electrical** – Symbols, abbreviations and general notes, electrical site plan, single line diagram, service load calculation table, panel schedules, power and lighting plans, schematics, and equipment details.

The documents prepared will be submitted to City for review.

Deliverables:

- 30% Design Drawings (Electronic, Adobe Acrobat format)
- 30% Design Technical Specifications Table of Contents (Electronic, Adobe Acrobat format)
- Class 4 OPCC (Electronic, Adobe Acrobat format)

Assumptions:

- Design drawings will be produced in AutoCAD 2021, Revit 2021, and set up in an ANSI D (22" x 34") format for full-size drawings and an ANSI B (11" x 17") format for half-size drawings.
- BIM Level of Development (LOD) 300 will be used for Revit sheets. Electrical conduits smaller than 2" will not be modeled.

- 30% Design Technical Specifications will be based on 1995 CSI Format (16 Division)
- Engineer will develop responses to comments received from City’s review of the 30% design with digital responses to review comments (Electronic, Adobe pdf format).

TASKS 2.3.2 30% DESIGN OPINION OF PROBABLE CONSTRUCTION COST

Objective: Engineer shall update the previous OPCC and prepare a 30% Design OPCC for the Project. Engineer shall follow the principles and guidelines of the Association for the Advancement of Cost Engineering (“AACE”) and standard Engineer cost estimating procedures. The OPCC shall meet the requirements of an AACE Class 3 estimate. The OPCC will be projected to the midpoint of the construction period and will be organized by facility.

Deliverables:

- 30% OPCC (Electronic, adobe pdf format)

TASKS 2.3.2 30% DESIGN REVIEW WORKSHOP

Objective: Engineer will meet with City staff to review the 30% design submittal. The meeting will use an online meeting platform such as Microsoft Teams or Webex and will include review of the discipline drawings, equipment list, OPCC, and schedule. City review comments will be tracked and collated within a shared BlueBeam studio session or other online co-working platform.

TASKS 2.3.4 EQUIPMENT PRE-PURCHASE – PACKAGE TREATMENT PLANT

Objective: The purpose of this task is to develop an invitation to bid or request for proposals for pre-purchase of the SBR system. The invitation to bid or request for proposals will include drawings and specifications that can be competitively bid by equipment manufacturers. The selected equipment package will become the basis of the design.

TASK 2.4 60% DESIGN

TASK 2.4.1 60% DESIGN

Objective: Advance design to 60% completion to show all areas of work on the Project identified in the attached Sheet List. The engineering disciplines designs will be 2D drawings, produced from AutoCAD. The 60% design submittal will include 60% construction drawings and specifications, P&IDs, and control descriptions, 60% Engineer’s Opinion of Probable Construction Cost (60% Engineer’s Estimate) AACE Class 2 and updated Project Schedule.

Deliverables:

- 60% Design Submittal (size and format per General Assumptions)
- 60% Engineer’s Estimate AACE Class 2 (electronic.pdf)

Assumptions:

- The primary purpose of the schedule will be to determine an allowable duration of construction.

TASK 2.4.2 60% DESIGN REVIEW WORKSHOP

Objective: Conduct a workshop with City staff to review the 60% design drawings, 60% Engineers Estimate, schedule and construction sequencing plan. The meeting will use an online meeting platform such as Microsoft Teams or Webex and will include review of the discipline drawings, equipment list,

OPCC, and schedule. City review comments will be tracked and collated within a shared BlueBeam studio session.

Deliverables:

- Review Workshop meeting agenda (final, electronic.pdf) and meeting minutes (draft and final, electronic.pdf)

TASK 2.5 90% DESIGN

TASK 2.5.1 90% DESIGN

Objective: Advance design to 90% completion to show all areas of work on the Project. The 90% design submittal will include 90% construction drawings and specifications, P&IDs, and control descriptions, 90% Engineer’s Opinion of Probable Construction Cost (90% Engineer’s Estimate) AACE Class 1, and updated Project schedule.

Deliverables:

- 90% Design Submittal (size and format per General Assumptions). The 90% Design Submittal will be stamped and used as the Permit submittal.
- 90% Engineer’s Estimate AACE Class 1 (electronic.pdf)

TASK 2.5.2 90% DESIGN REVIEW WORKSHOP

Objective: Conduct a workshop with City staff to review the 90% Design Drawings, 90% Engineers Estimate, Schedule and Construction Sequencing Plan. The meeting will use an online meeting platform such as Microsoft Teams or Webex and will include review of the discipline drawings, equipment list, OPCC, and Project schedule. City review comments will be tracked and collated within a shared BlueBeam studio session or other shared co-working space.

Deliverables:

- Review workshop meeting agenda (final, electronic.pdf) and meeting minutes (draft and final, electronic.pdf)

TASK 2.6 PREPARE FINAL DESIGN SUBMITTAL

Objective: Incorporate City comments from the 90% design workshops and prepare final stamped contract documents for construction.

Deliverables:

- Final Design Submittal (size and format per General Assumptions). The Final Design Submittal will be electronically stamped.
- Engineer’s Opinion of Probable Construction Cost AACE Class 1 (electronic.pdf)

TASK 2.7 DEQ PERMITTING

Objective: Support effluent permitting discussions and findings with City, hydrogeologist subcontractor, Engineer and DEQ. Two virtual (online) meetings with DEQ. Two virtual (online) meetings with the hydrogeologic subcontractor and Engineer.

Deliverables:

- WPCF Permit application
- Recycled Water Use Plan
- Two virtual (online) meetings with DEQ
- Written comments on the draft Hydrogeological report
- Draft comments on the DEQ's applicant review permit

Assumptions:

- City submits the permitting application and fees to DEQ.
- Engineer is not responsible for DEQ review schedule of draft permits.
- City is responsible for all water quality and influent/effluent sampling needed.
- Coordination and contracting with recycled water end users will be conducted by others.

TASK 2.8 GOTECHNICAL ENGINEERING

Objective (Geotechnical): Complete field explorations and laboratory testing to characterize the subsurface conditions and provide recommendations to support design and construction of the new WWTP.

Deliverables:

- Complete a geotechnical investigation including three (3) borings up to about 60 ft at the water treatment plant, two (2) to three (3) borings up to about 15 ft completed in the proposed parking lot with infiltration testing, two (2) borings completed within the proposed new 1,500 ft roadway/sanitary sewer pipeline alignment to a maximum depth of approximately 45 ft, and complete approximately 10 Kessler DCP's for pavement design along the new 1,500 ft alignment.
- Complete index laboratory testing including moisture contents, Atterberg limits, and grain size analysis. More advanced testing such as consolidation, unconfined compression, etc. will be considered as appropriate.
- Complete a site-specific seismic hazard assessment in accordance with guidelines outlined in the 2019 OSSC.
- Complete geotechnical design/evaluation to provide recommendations for up to three (3) conceptual level foundation types and design recommendations for a single selected foundation (foundation bearing resistance/strata, foundation sliding resistance, etc.), slab support, permanent wall lateral earth pressures, passive pressure resistance, seismic site class, seismic response spectra, liquefaction potential, infiltration rates, temporary shoring lateral earth pressures, and pavement design (up to two sections).
- Provide guidance/recommendations regarding construction including excavation, structural fill, utility trench backfill, dewatering, subgrade preparation, construction staging, and
- Results of our analysis and geotechnical recommendations will be summarized in a geotechnical report. We anticipate submitting a draft geotechnical report with a single round of edits to develop the final stamped geotechnical report.

Assumptions:

- Estimated traffic for the new pavements will be provided including annual number and vehicle class. This information is available in the John Day Transportation Study (May 2021).

- Project includes the new WWTP and utilities/roadway between Station 18+00 of the southern pipeline alignment to approximately Station 01+00 of the northern pipeline alignment. Remaining portions of the pipeline and the two bores are out of scope.
- Access to the Project property will be coordinated by others and will not require permits.
- Contaminated soils will not be encountered within the site explorations. If contaminated soils are encountered, Engineer will place the drilling crew on standby and contact the project manager for further direction. All costs associated with standby or disposal of contaminated soil are not included in the scope.
- All design will be in accordance with the 2019 OSSC and that seismic performance/resiliency in excess of what is outlined in the code will not be required for this Project.

TASK 2.9 TELEMETRY AND SCADA CONTROLS ACS

Objective (Telemetry): Provide for design of a Master PLC system for messaging between individual OEM Skids, acquisition of peripheral non-skid components I/O, and plant SCADA within the scope of the WWTP system.

Deliverables:

- Design a Master PLC Panel, with complete shop drawings at an “Issued for Panel Construction” stage. This panel is expected to handle “handshake” communications/messaging between individual OEM Skids as well as providing those Skids with I/O from other stand-alone instrumentation within the plant. Drawings will be complete and ready for the awarded contractor to source components from the BOM and build.
- Provide the I/O portion of P&ID drawings as it pertains to the Control Scheme and SCADA System. Engineer or Engineer’s sub-contract will augment the Engineer’s drawings to add the necessary I/O and provide for integration considerations with CarefreeSCADA.
- Specify components to keep uniformity throughout City’s control systems, and for ease of integration with CarefreeSCADA.
- Design the infrastructure for the CarefreeSCADA system, including a “Local Failover” system to ensure continued data acquisition in the event of a comms loss to the plant and operational awareness from a local perspective. CarefreeSCADA is a SAAS Product exclusive to Advanced Control Systems, LLC and will be implemented as part of the execution of the WWTP project.

TASK 2.10 SUBCONTRACTORS (SURVEY)

Objective (Survey): Provide horizontal and vertical survey support throughout the life of the contract. The primary goal for field survey is to provide detailed boundary and topographic survey for the regions within the project area.

Deliverables:

- CAD drawings that include survey data points, existing utilities and all necessary property boundaries to be used by the design team.

TASK 2.11 (OPTIONAL) ENGINEERING - DESIGN (SITE, ROADWAY AND UTILITIES)

Objective: To provide design services for all elements surrounding the new WWTP from site development to access and utilities. Task 2.11 is an option task. City may choose to contract with City’s Engineer of Record to perform this work.

Deliverables:

- Design for this portion of the work will entail all access roads, utilities and requirements for the new WWTP up to the building footprint. It is anticipated that a new road extension will take place from the north end of Patterson Bridge and extending to the new WWTP approximately 1,500-feet in length that follow City street standards. A new waterline and extensions for phone/cable/power will also be installed during this time along with a new waterline. The sewer line under this road section will be installed for the future connection to the WWTP as well.
- Site design will entail grading, paving, ADA crossing and parking where required by law. Stormwater will be designed to handle a 50-year event with all necessary connections and holding facilities as required by State of Oregon and City Development Codes.
- Consultant shall provide stamped drawings and specifications in PDF format to be used for bidding and construction services.

Assumptions:

- The design will only reflect work within the public ROW limits. Connections to private parcels will only entail new points of access and provide curb cuts and minor grading to re-connect the existing access point. Utilities will be re-connected to existing services as required within the project region.
- Design team is assuming water pressure is sufficient for the new facility. No studies are included within this scope of work.
- This task will require a 60% and 90% review by City and regulatory agencies as necessary.
- Hard copy PDF's for plans and specifications.

TASK 3 ENGINEERING ADDITIONAL SERVICES

TASK 3.1 1200-C PERMITTING

Objective: Engineer will provide support for DEQ permitting requirements and documentation prior to and during construction.

Deliverables:

- Data required for permit application forms as it relates to the design.
- Total Disturbed area for 1200-c
- Compliance requirements for effluent discharge permits.

Assumptions:

- City will be responsible for fees associated with all permits required for the project.

TASK 4 ENGINEERING – PRE-DEVELOPMENT

TASK 4.1 SERVICES DURING BID (SDB)

Objective: To provide support to City for purposes of public procurement for construction of the Project. The bidding process will entail two phases. Phase 1 will include procurement of the plant

manufacturer. Phase 2 includes the procurement of a general contractor to construct the complete Project, including installation of the package plant system procured in Phase 1.

Deliverables:

- Phase 1 services include proposal/bidding processes in order to select the proper plant manufacturer for the project. Engineer will help evaluate potential proposals/bids for irregularities or assumptions made by the submitting manufacturer and present those findings to City for review.
- Log of proposal/bid questions (electronic, excel and PDF).
- Two (2) addendums (electronic, pdf).
- Phase 2 services include bidding processes in order to select a general contractor to perform all construction services for the Project. Engineer will help evaluate potential bids for irregularities or assumptions made by the submitting contractors and present those findings to City for review.
- Log of bid questions (electronic, excel and PDF).
- Two addendums (electronic, pdf).

Assumptions:

- City will be the primary contact for proposal/bidding submission purposes and Engineer will support the City as needed throughout the process. It is assumed that one (1) on-site pre-proposal/pre-bid meeting will be held as part of this task for both Phase 1 and 2.
- Scoring evaluation based on proposals and/or price for Phase 1 and scoring evaluation based on price for Phase 2.
- Evaluation of proposals/bids for irregularities or mistakes.
- Technical memo providing a summarized review for Phase 1 and 2 proposals/bids.

TASK 4.2 PRE-BID CONFERENCE

Objective: Design team will assist City in arranging and conducting one pre-proposal/pre-bid conference. In consultation City, Engineer will provide assistance with development of the draft content for the pre-proposal/pre-bid conference.

Deliverables:

- Pre-proposal/pre-bid agenda (Electronic, pdf)
- PowerPoint slides for pre-proposal/pre-bid conference (electronic, ppt)

Assumptions:

- Attendance on site with qualified staff to answer technical questions from the contractors.

TASK 4.3 BID EVALUATION

Objective: This task is an allowance to support City’s evaluation of proposals/bids. This includes developing a summary of proposal/bid items submitted including verifying completeness of submitted proposals/bid forms, reviewing bid amounts, contacting the Oregon Construction Contractors Board to review the selected proposer’s/apparent low bidder’s construction record, and contact the successful

proposer's/apparent low bidder's surety to verify bonding capacity of the successful proposer/apparent low bidder.

Deliverables:

- Summary of Bid Tabulations, (electronic excel and pdf)
- Recommendation of Award (electronic word and pdf)

Assumptions:

- Due diligence investigation is assumed to be for the selected proposer/apparent low bidder and second low bidder.

TASK 4.4 CONFORMED DOCUMENTS

Objective: Engineer will incorporate addenda during the proposal/bidding phase into the contract documents.

Deliverables:

- Two (2) full-size sets and five (5) half-size sets of conformed drawings; five sets of specifications.
- Two (2) USB flash drives with electronic files (PDF format).

TASK 5 ENGINEERING SERVICES DURING CONSTRUCTION

TASK 5.1 CONSTRUCTION ADMINISTRATION

Objective: Engineer will provide construction administration duties throughout the life of Project construction to support City.

Deliverables:

- Review construction material submittals for approval, denial, or resubmittal as necessary.
- Review monthly pay applications.
- Provide support for construction activities to the selected construction contractor and City for value engineering.
- Support City for any contractor submittals for change orders, force account or other contractual support throughout the construction timeline.
- As-built drawings at the conclusion of the Project in pdf format on a digital storage device and hard copy of plans.

Assumptions:

- Engineer will provide formal documentation for any activity throughout Project construction with official notifications to the selected contractor and City.

TASK 5.2 ENGINEERING - INSPECTIONS

Objective: Engineer will provide inspection services throughout the term of the Agreement. The resident inspector will provide detailed notes for daily observation, photographs, and copies for all tests completed on site. Resident inspector will also coordinate with the Engineer for any questions that arise during construction in order to validate all quality control aspects. Because USDA will require daily inspections, City would prefer to find someone local to inspect the Project.

Deliverables:

- Daily inspection logs
- Material review for quality assurance
- Quantity tracking for onsite and installed products
- Review of monthly invoicing from the contractor

Assumptions:

- Inspection Logs will be stored on Engineer’s Dropbox account and viewable at any time by City personnel.
- Inspection logs will be uploaded at the end of each week to the Dropbox or co-working space account.
- Resident inspector is on site to document construction and will not provide specific direction to the contractor.

TASK 5.3 INITIAL OPERATIONS AND MANAGEMENT (START-UP)

Objective: Engineer will arrange a date at the conclusion of construction for a final punchlist walk-through and start-up of the Project. An operations and maintenance manual binder for the Project (“O&M Manual”) will be provided to City at the conclusion of this task.

Deliverables:

- Written report noting any deficiencies and remaining items to be corrected prior to Project close-out.
- O&M Manual

Assumptions:

- The anticipated start-up is anticipated to be two (2) days on site and a total of one month overall to finalize punchlist items.

TASK 5.4 CONTINGENCIES (ADDITIONAL MEETINGS OR EFFORT WITH DEQ)

Objective: This task is a placeholder for work provided as needed for DEQ compliance not already covered in this Scope of Work. Items such as meetings with hydrogeologists or coordination efforts with USDA or other funding agencies will be included here.

Deliverables:

- Attendance at meetings and written correspondence for any decisions that affect the Scope of Work for the Project.

Assumptions:

- Work under this task is only completed as directed by City.