CLACKAMAS
WATER ENVIRONMENT SERVICES

GREGORY L. GEIST | DIRECTOR

Water Quality Protection
Surface Water Management
Wastewater Collection & Treatment

August 13, 2026 BCC Agenda Item: _____

Board of County Commissioners
Acting as the governing body of Water Environment Services
Clackamas County

Approval of a Contract Amendment with Carollo Engineers for additional design services to the Clackamas Area Interceptor Improvements Project. Amendment Value is $602,395.22 and no time increase. Total Contract Value is $5,422,463.65 for 4 years. Funding is through WES Sanitary Sewer Construction Funds. No County General Funds are involved.

Previous Board Action/Review: Approval of Contract #7185 – November 23, 2022. Approval of Amendment #1 – January 5, 2023. Approval of Amendment #2 – February 8, 2024. Approval of Amendment #3 – October 2, 2025.
Performance Clackamas: 1. This project supports WES' strategic plan to upgrade WES' infrastructure to ensure the sustainable delivery of reliable, high-quality, and climate-resilient clean water services that support the growth and vitality of our communities, natural environment, and economy.
2. This project supports the County's Strategic Priorities of Strong Infrastructure, Vibrant Economy, and Safe, Secure and Livable Communities.
Counsel Review: Yes **Procurement Review:** Yes
Contact Person: Jeff Stallard **Contact Phone:** 503-742-4694

EXECUTIVE SUMMARY: The Collection System Master Plan (Jacobs, 2019) identified the Clackamas Area Interceptor system upstream of the Intertie 2 Pump Station, which serves Clackamas County and portions of the City of Happy Valley, as nearing its peak wet weather capacity. In late 2022 WES entered a contract with Carollo Engineers, Inc. to provide the first phase of the project which includes preliminary design and preliminary permitting for the project. The additional services included in the amendment are for engineering services during construction for the Middle Interceptor segment of the alignment and additional design effort related to the surface water management in the Mt Scott Interceptor segment of the Clackamas Interceptor Area. This work requires the removal and replacement of a double-barrel culvert at the confluence of Dean Creek and Mt. Scott Creek.

The project was identified in WES's 2019 Sewer System Master Plan and is listed in WES's adopted FY 2026/27 – 2030/31 Capital Improvement Plan.

RECOMMENDATION: Staff recommends that the Board of County Commissioners of Clackamas County, acting as the governing body of Water Environment Services, approve Amendment #4 for Contract #7185 with Carollo Engineers, Inc. for engineering services to design the Middle Interceptor segment of the Clackamas Area Interceptor Improvements Project.

Respectfully submitted,

Ronald E Wierenga

Ron Wierenga
Assistant Director, WES

Attachment: Amendment #4 for Contract #7185, Carollo Engineers, Inc.

For Filing Use Only

AMENDMENT #4
TO THE CONTRACT DOCUMENTS WITH CAROLLO ENGINEERS, INC. FOR ENGINEERING SERVICES NECESSARY TO DESIGN THE CLACKAMAS AREA INTERCEPTOR PROJECT
Contract #7185

This Amendment #4 is entered into between **Carollo Engineers, Inc.** ("Contractor") and Water Environment Services ("District") and shall become part of the Contract documents entered into between both parties on **November 23, 2022** ("Contract").

The Purpose of this Amendment #4 is to make the following changes to the Contract:

1. ARTICLE I, Section 2. **Scope of Work** is hereby amended as follows:
District has authorized an increase to the Scope of Work for consultant to provide additional design services for the culvert that will need to be replaced in order to facilitate the installation of the new Mt. Scott Interceptor, additional potholing and survey services for the Middle Clackamas Interceptor, preparation of documents for SRF Funding, and design services during construction of the Middle Clackamas Interceptor. The additional Scope of Work and Budget Detail is attached as **Exhibit "A**" to this Amendment #4 and hereby incorporated by reference.

2. ARTICLE I, Section 3. **Consideration** is hereby amended as follows:
The District is authorizing additional compensation in the amount of **$602,395.22** for the performance of additional work described above and in accordance with the terms of the Contract. The maximum compensation authorized under this Contract shall not exceed **$5,422,463.65.**

ORIGINAL CONTRACT	$	**3,731,573.00**
AMENDMENT #1	$	296,238.00
AMENDMENT #2	$	265,300.00
AMENDMENT #3	$	526,957.43
AMENDMENT #4	**$**	**602,395.22**
TOTAL AMENDED CONTRACT	**$**	**5,422,463.65**

Except as expressly amended above, all other terms and conditions of the Contract shall remain in full force and effect. By signature below, the parties agree to this Amendment #4, effective upon the date of the last signature below.

Carollo Engineers, Inc.

07/14/2026
Authorized Signature Date

Brian R. Matson, Senior Vice President
Printed Name

07/14/2026
Authorized Signature Date

Erik Waligorski, Vice President
Printed Name

Water Environment Services

Chair

Date

Approved for Legal Sufficiency:

7/16/2026
County Counsel Date

Exhibit A
Scope of Work and Budget Detail

ENGINEERING SERVICES FOR CLACKAMAS WATER ENVIRONMENT SERVICES

CLACKAMAS AREA INTERCEPTOR IMPROVEMENTS PROJECT

AMENDMENT 4 - SCOPE OF WORK

INTRODUCTION

Clackamas Water Environment Services, referred to as "District" wants to complete capacity upgrades on the existing Clackamas Area Interceptors as hydraulic modeling completed as part of the Sanitary Sewer Master Plan (SSMP) work completed by Jacobs in 2019 indicated portions of the interceptor are at its peak wet weather capacity and need to be upsized. The Project includes approximately 5 miles of pipe and capacity upgrades which are needed at varying timeframes. The installation of the Mt. Scott Interceptor requires the removal and replacement of a double-barrel culvert at the confluence of Deer (Dean) Creek and Mt. Scott Creek.

This scope includes:

- The development of the 60%, 90%, and final design documents for the culvert replacement, bank restoration design for the portion of Mt. Scott Creek that is anticipated to be impacted by the installation of the Mt. Scott Interceptor.
- Additional topographic survey services and potholing services for the Middle Interceptor.
- Preparation of the Endangered Species Act (ESH)/Endangered Fish Habitat (FEH) Crosscutter documentation and Historic and Cultural Resources Crosscutter documentation to support WES' state revolving fund application for funding the Middle Interceptor.
- Engineering services during construction for the Middle Interceptor.

CONSULTANT'S SERVICES

Consultant shall provide the following services:

TASK 100 - PROJECT MANAGEMENT (Amended)

Amend this Task to include additional tasks to manage.

The purpose of this task is to manage and coordinate engineering and related services required for completion of the Work in this Amendment in accordance with the established schedule, budget, and quality expectations. Task 100 includes the additional effort by DEA required to manage the Deer (Dean) Creek culvert replacement, the Mt. Scott bank restoration work, additional topographic survey services, potholing coordination, and crosscutter document preparation as outlined in this scope and in a manner consistent with the rest of the Project.

Task 100 Assumptions

1. The Mt. Scott Interceptor project is scheduled to go to bid in mid- to late- 2027.
2. DEA's PM, Deputy PM, and technical staff coordination meeting attendance will be on an as-needed basis but will not exceed four, 1-hour meetings under this scope of work.

Task 100 Deliverables

1. The deliverables for this task will be incorporated into the overall Project invoices, progress reports, and decision logs.

TASK 350 – FINAL DESIGN (Amended)

SUBTASK ADDITIONAL POTHOLING (Amended)

1. Verify sewer service lateral depths between existing interceptor and connection point.
    a. Use underground utility locate vendor to provide locate 1 lateral services.
    b. All traffic control and associated permitting to be included by utility locate vendor.
    c. Add verified depth to plans as necessary.

Subtask Additional Potholing Assumptions

1. The utility will be between 0' and 14' in depth.
2. If a test-hole falls in the hard surface utility locate vendor shall sawcut the existing asphalt or concrete.
3. Utility locate vendor shall backfill all test-holes with a material approved by the local jurisdiction (5/8" select, sand or pea gravel).
4. CDF backfill and permanent asphalt repair are excluded. If the local jurisdiction requires CDF backfill and/or permanent asphalt repair, additional fees will be required.
5. Collect utility and test-hole data, and photograph all found utilities.
6. Restoration is assumed currently to be 5/8" crushed rock back fill with an EZ street patch. Utility locate vendor will provide a 2-year warranty from the date the test-hole was performed.
7. Grind and overlay of the existing roadway is not covered in this scope. Should the local jurisdiction require additional restoration, other than what is included in the scope, then additional fees will be required.
8. All bonding and/or ROE will be obtained prior to APS arriving on site.

Subtask Additional Potholing Deliverables

1. Test-hole data sheets, which include Top, Bottom, Width, Diameter and Direction of the utility.
2. Excel spread sheet containing all test-hole data for the project.
3. Google Earth RM map with interactive link accompanied with an SHP File.
4. Photo of all Found Utilities.
5. One and a quarter inch zinc washer left at grade where utility was found with measurements stamped into it.

SUBTASK ADDITIONAL TOPOGRAPHIC SURVEY SERVICES (Dean Creek and Mt. Scott Creek) (New)

The purpose of this subtask is to provide topographic data including an updated basemap with digital terrain model (DTM), Deer (Dean) Creek and Mt. Scott Creek profiles, and bridge measurements sufficient to support the greater scope of work.

Subtask Additional Topographic Survey Services (Dean Creek and Mt. Scott Creek) Assumptions

1. Consultant will establish control points as needed to support this scope of work.
2. Consultant will perform conventional topographic survey of the Mt. Scott Creek area Union Pacific (UPRR) railroad crossing (see Survey Limits graphic, below) using total station and GNSS receivers.
3. Creek data will include the thalweg profile, six (6) cross-sections, and standard topography to create a 1-foot contour digital terrain model DTM.
4. Data for the railroad bridge over Mt. Scott Creek will include low chords, tops of embankments, and any inverts/size/type of any culverts within the Survey Limits.
5. The property will be accessible to Consultant's survey crew.
6. Consultant survey crew will not "foul" the tracks to perform this scope of work. All survey work will be performed outside of the railroad right-of-way.
7. Project datum will be based on the existing basemap performed earlier by Consultant for the Clackamas Interceptor project. The deliverable per this scope of work will be added to the existing basemap.
8. Trees 6" dbh (diameter breast height) will be located within the Survey Limits and noted as conifer or deciduous. Trees will not be tagged and specific species will not be identified.
9. Underground utility locates will not be performed. Utility information will be limited to those above-ground accessories and signage and any available as-built plans. It is likely that there are power or communication utilities within the railroad right-of-way.
10. No property monuments will be set, and a record of survey will not be filed with Clackamas County.

Survey Limits:

Subtask Additional Topographic Survey Services (Dean Creek and Mt. Scott Creek) Deliverables

1. Consultant will provide an updated CAD (Civil3D) basemap including all measured data and the new DTM with 1-foot contours.

SUBTASK ADDITIONAL TOPOGRAPHIC SURVEY SERVICES (SE 98th Ave.) (New)

The purpose of this subtask is to provide topographic data including an updated basemap with digital terrain model (DTM) of a portion of SE 98th Avenue to support the greater scope of work.

Consultant will establish control points as needed to support this scope of work and will perform conventional topographic survey of a portion of 98th Avenue between SE Clackamas Road and SE Brandeis Street (see Survey Limits), using total station and GNSS receivers.

Survey data will include those features typical to the existing basemap standards per this project, and will include a 1-foot contour digital terrain model (DTM) for the survey limits of this scope.

Subtask Additional Topographic Survey Services (SE 98th Ave.) Assumptions

1. The property will be accessible to Consultant survey crew.
2. Project datum will be based on the existing basemap performed earlier by Consultant for the Clackamas Interceptor project. The deliverable per this scope of work will be added to the existing basemap.
3. Trees 6" dbh (diameter breast height) will be located within the Survey Limits and noted as conifer or deciduous. Trees will not be tagged and specific species will not be observed.
4. An Oregon 811 ticket will be submitted by Consultant for underground utility locate paint marks that will be measured by Consultant. Private utility locates through a third party will not be performed.
5. Monuments will be recovered, sufficient to resolve the rights of way within the Survey Limits for SE 98th Ave, SE Amherst St, and SE Brandeis St.
6. No property monuments will be set, and a record of survey will not be filed with Clackamas County.

Subtask Additional Topographic Survey Services (SE 98th Ave.) Deliverables

- Consultant will provide an updated CAD (Civil3D) basemap including all measured data and the new digital terrain model (DTM) with 1-foot contours.

Survey Limits:

SUBTASK HYDRAULIC ANALYSIS AND DESIGN (New)

The purpose of this subtask is to complete a hydraulic analysis of a portion of Mt. Scott Creek and Deer (Dean) Creek for the purpose of supporting the design and permitting of the Mt. Scott culvert replacement and bank restoration. The analysis will start just upstream of the confluence between Mt. Scott Creek and Phillips Creek. The upstream extent of the analysis along Mt. Scott Creek will be the point where the stream passes under 82nd Street; the upstream extent along Deer (Dean) Creek will be approximately 400 feet upstream of the UPRR railroad bridge. The hydraulic analysis and design includes the following work:

1. Obtain a copy of the Effective Flood Insurance Study (FIS) model from the Federal Emergency Management Agency (FEMA), if available.
2. Develop a 1-dimensional hydraulic model of the proposed model extent in HEC-RAS. The analysis will include, at a minimum, an Existing Condition and a Proposed Condition simulation. The hydraulic model will be used to:
    a. Evaluate the necessary size of the structure to meet Oregon Department of Fish and Wildlife fish (ODFW) passage requirements and No-rise requirements of Clackamas County and FEMA.
    b. Determine appropriate inlet and outlet protection measures for the culvert.
    c. Design an appropriate low-flow channel through the culvert (as-needed).
    d. Evaluate channel conditions to support the design of bank restoration measures, which must also meet No-rise requirements.
    e. Evaluate potential deficiencies at the UPRR railroad bridge and the possible impacts to the performance of the proposed culvert..
3. A hydraulic memorandum will be prepared and will:
    a. Provide a description of the analysis completed and the proposed site improvements.

b. Demonstrate compliance with fish passage, No-rise, no net fill, temporary water management, and culvert capacity requirements.
c. Provide relevant tables, figures, and appendix information to adequately convey the details of the work

3. The hydraulic analysis and memo will be updated to address District and Agency comments from the 90% and 100% design reviews.

Subtask Hydraulic Analysis and Design Assumptions

1. The Effective FIS model is believed to be a HEC-2 model, which is obsolete software that cannot be directly used. A new hydraulic model is anticipated to be developed and will be based on the Effective FIS mapping and HEC-2 model, as appropriate.
2. The replacement culvert and channel restoration will be capable of meeting No-rise requirements; a Conditional Letter of Map Revision will not be required.
3. Limited topographic survey of Mt. Scott Creek and Deer (Dean) Creek, supplemented by the LiDAR-derived Digital Elevation Model available through the Oregon Department of Geology and Mineral Industries (DOGAMI) will be adequate for the hydraulic analysis and preparation of the associated design documents.
4. Up to three (3) types of deficiencies will be considered at the UPRR railroad bridge: debris accumulation, sediment deposition, and an additional deficiency to be determined after a site visit to inspect the channel and bridge conditions.

Subtask Hydraulic Analysis and Design Deliverables

1. Hydraulic model files in native format (upon request).
2. Draft Hydraulic memorandum in PDF format, submitted with the 60% Design documents.
3. Final Hydraulic memorandum in PDF format, submitted with the 100% Design documents.

SUBTASK 60% PLANS AND SPECIFICATIONS (Amended)

The purpose of this subtask is to develop plans and specifications for the Mt. Scott Creek culvert replacement and bank restoration work. The work will include the following:

1. Prepare 60% Design Plans that provide a clear demonstration of the design intent that is adequate for initial permit application development. The anticipated plans for each submittal are outlined in the following list:
    a. Culvert Plan & Profile.
    b. Culvert & Channel Details.
    c. Temporary Water Management Plan.
    d. Temporary Water Management Details.
2. Prepare special provisions for the work specific to the Deer (Dean) Creek culvert replacement and Mt. Scott Creek bank restoration.
3. Conduct internal Quality Assurance/Quality Control (QA/QC) of the 60% design documents.
4. Submit 60% Design to the District for review.
5. Prepare responses to District review comments and coordinate to identify an adequate resolution.

Subtask 60% Plans and Specifications Assumptions

1. Temporary water management needs for the installation of the segment Mt Scott Interceptor beginning at SE 82nd Avenue, extending west 700 feet will be provided to Consultant a single time for the 60% Design submittal. The temporary water management design will be developed to provide a comprehensive solution for the identified segment.
2. Only the special provisions that are not already developed as a part of the overall project will be developed for the Deer (Dean) Creek culvert replacement and Mt. Scott Creek bank restoration.
3. These designs are distinct from the roadway designs and, should integration be necessary, may require an amendment.

Subtask 60% Plans and Specifications Deliverables

1. 60% Design plans and specifications in PDF format.
2. 60% Design Review Comment Log with comment responses in Microsoft Excel format.

SUBTASK 90% PLANS AND SPECIFICATIONS (Amended)

The purpose of this subtask is to develop plans and specifications for the Mt. Scott Creek culvert replacement and bank restoration work. The work will include the following:

1. Further develop the design plans to a 90% design level that provides sufficient detail for constructing all features included in the Deer (Dean) Creek culvert replacement and Mt. Scott Creek bank restoration. The anticipated plans for each design submittal are outlined in the table provided in Task 500.
2. Revise the 60% special provisions as-needed to provide construction-ready guidance for the Contractor.
3. Conduct internal QA/QC of the 90% design documents.
4. Submit 90% Design to the District for review.
5. Prepare responses to District review comments and coordinate to identify an adequate resolution.

Subtask 90% Plans and Specifications Assumptions

1. Temporary water management needs for the installation of the segment Mt Scott Interceptor beginning at SE 82nd Avenue, extending west 700 feet are assumed to be the same as the requirements provided with the 60% PS&E development.
2. Only the special provisions that are not already developed as a part of the overall project will be developed for the Deer (Dean) Creek culvert replacement and Mt. Scott Creek bank restoration.

Subtask 90% Plans and Specifications Deliverables

1. 90% Design plans and specifications in PDF format.
2. 90% Design Review Comment Log with comment responses in Microsoft Excel format.

SUBTASK 100% PLANS AND SPECIFICATIONS (Amended)

The purpose of this subtask is to develop plans and specifications for the Mt. Scott Creek culvert replacement and bank restoration work. The work will include the following:

1. Further develop the design plans to a 100% design level that provides sufficient detail for constructing all features included in the Deer (Dean) Creek culvert replacement and Mt. Scott Creek bank restoration. The anticipated plans for each design submittal are outlined in the table provided in Task 500.
2. Revise the 90% special provisions as-needed to provide construction-ready guidance for the Contractor.
3. Conduct internal QA/QC of the 100% design documents.
4. Submit 100% Design to the District for review.
5. Prepare responses to District review comments and coordinate to adequate resolve the review comments.

Subtask 100% Plans and Specifications Assumptions

1. Temporary water management needs for the installation of the segment Mt Scott Interceptor beginning at SE 82nd Avenue, extending west 700 feet are assumed to be the same as the requirements provided with the 60% Design development.
2. Only the special provisions that are not already developed as a part of the overall project will be developed for the Deer (Dean) Creek culvert replacement and Mt. Scott Creek bank restoration.

Subtask 100% Plans and Specifications Deliverables

1. 100% (unsigned) design plans and specifications in PDF format.
2. 100% (signed) design plans and specifications in PDF format.

TASK 400 - OPINION OF PROBABLE CONSTRUCTION COST (OPCC) (Amended)

SUBTASK OPCC FOR FISH PASSAGE AND BANK RESTORATION

Amend this Task to include an opinion of probable construction cost (OPCC) at 90 percent and 100 percent design efforts for the fish passage and bank restoration design.

1. Prepare an OPCC based on 90 Percent Design documents for the fish passage and bank restoration design.
2. Conduct internal Quality Assurance/Quality Control (QA/QC) of the 90 Percent OPCC plans per Task 900 for each project.
3. Submit the Draft 90 Percent OPCC for each project to the District for review.
4. Prepare 100 Percent OPCC and convert it to Bid Tab format for bidding support for the fish passage and bank restoration design.

Subtask OPCC for Fish Passage and Bank Restoration Assumptions

1. The OPCC generated during 90 percent shall be a Class 2 estimate based on AACE standards.
2. The OPCC generated during 100 percent shall be a Class 1 estimate based on AACE standards.
3. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for potential projects, the Consultant has no control over cost or price of labor and material; unknown or latent conditions of existing equipment or structures that may affect operation and maintenance costs; competitive bidding procedures and market conditions; time or quality of performance of third parties; quality, type, management, or direction of operating personnel; and other economic and

operational factors that may materially affect the ultimate project cost or schedule. Therefore, the Consultant makes no warranty that the District's actual project costs, financial aspects, economic feasibility, or schedules will not vary from the Consultant's opinions, analyses, projections, or estimates.

Subtask OPCC for Fish Passage and Bank Restoration Deliverables

1. 90 and 100 Percent OPCC for the fish passage and bank restoration design.

TASK 700 – PERMITTING ASSISTANCE (Amended)

SUBTASK ADDITIONAL ENVIRONMENTAL SERVICES (Fish Passage Support)

The purpose of this subtask is to coordinate with other agencies and utilities directly impacted by the proposed project improvements and to inform the roadway and railroad permitting. Subtask includes the following:

1. Preparation of an ODFW Fish Passage Plan application:
    a. Preparation of a draft and final application.
    b. One site visit with the ODFW regional fish biologist, to be attended by one Consultant Engineer and one Consultant Biologist.
    c. Communications with ODFW.
2. Permitting Meetings (Design Team Support):
    a. One remote meeting with US Army Corps of Engineers (USACE), Oregon Department of State Lands (DSL), DEQ, ODFW, and NMFS.
    b. One remote meeting and coordination for County floodplain development permit.

Subtask Additional Environmental Services Assumptions

1. Permit meeting facilitation and attendance by Consultant permitting staff has been approved under Task Order 3.
2. All meetings are assumed to be virtual.

Subtask Additional Environmental Services Deliverables

1. Draft and Final ODFW Fish Passage Plan.

SUBTASK ADDITIONAL PERMITITNG SERVICES (ESA/EFH Crosscutter Documentation) (New)

The District is seeking funding from the Oregon State Revolving Fund (SRF) for the Middle Interceptor portion of the project. This scope of work includes the development of Endangered Species Act (ESA) and Essential Fish Habitat (EFH) and Historic and Cultural Resources Crosscutter documentation to support the SRF funding application.

Consultant will develop a biological evaluation (BE) for the Middle Interceptor portion of the project, per the guidelines provided by DEQ and as follows. Consultant will conduct desktop reconnaissance to determine the potential presences of listed threatened or endangered animals, plants, or aquatic species, as well as any critical habitat or essential fish habitat that occurs within the project action area. The

following websites will be queried for species range, life history, habitat, distribution, and other factors necessary for the species survival.

- Oregon Biodiversity Information Center.
- National Oceanic and Atmospheric Administration (NOAA) Fisheries Endangered Species Act Consultations.
- NOAA Fisheries Essential Fish Habitat mapper.
- United States Fish and Wildlife Services: Information for Planning and Consultation (IPaC).

Consultant will prepare a draft and final BE to assess potential impacts to listed species, critical habitat and essential fish habitat, make effects determinations, and identify conservation measures to offset potential impacts. The BE will be used as coordination between the DEQ and the Environmental Protection Agency (EPA) and other federal agencies as needed, in support of the SRF application.

Subtask Additional Environmental Services (ESA/EFH and Historic and Cultural Resources Crosscutter Documentation) Assumptions

1. District will lead communication with the Tribes.
2. This SOW assumes that formal consultation with federal agencies beyond the EPA will not be required.
3. The final, completed ESA/EFH Crosscutter documentation is considered a portion of the overall SRF application package and will be evaluated separately by the agencies.
4. This SOW is based on the following approval timeline by the agencies:
    a. Upon submittal of the final, completed ESA/EFH Crosscutter documentation to DEQ, DEQ will determine completeness in 1 week, then they will forward the BE to the EPA for review.
    b. The EPA will informally comment within 30 days as to whether they concur with the BE, or whether they will send it to other relevant federal agencies for additional review. e.g., informal consultation.
    c. Without additional agency review, full approval process could take 3-4 months from submittal of the ESA/EFH Crosscutter documentation to DEQ.
    d. This SOW assumes no stated timeline for review by additional federal agencies.
5. This SOW assumes Consultant will address one (1) round of comments by Carollo and one (1) round of comments by the District.
6. This SOW assumes CONSULTANT will address one (1) round of comments from DEQ and one (1) round of comments from EPA.

Subtask Additional Environmental Services (ESA/EFH and Historic and Cultural Resources Crosscutter Documentation) Deliverables

1. One (1) Historic and Cultural Resources Crosscutter application with supporting documentation.
2. One (1) Draft Biological Evaluation.
3. One (1) Final Biological Evaluation.

TASK 1000 – ENGINEERING SERVICES DURING CONSTRUCTION (New)

SUBTASK CONSULTATION DURING CONSTRUCTION FOR MIDDLE SEGMENT

The purpose of this subtask is to support the Project's needs by providing consultation and technical services during construction of the Project. Consultant shall clarify construction contract documents and provide written responses to Requests for Information ("RFIs") and review Submittals against Contract Documents as requested by District staff. Consultant shall only provide design consultation when directed by the District. The design consultation will occur only as required and may be ongoing throughout the Construction of the Project.

1. **Meetings**. Four site visits have been budgeted to help evaluate changes during construction and/or help develop solutions in the field. Consultant will not attend weekly construction meetings. Scope includes 10 meetings during construction to discuss topics with District and District's Construction Manager.
2. **Review RFIs**. Review and respond to RFIs from the Contractor forwarded from the District Construction Manager. Issue interpretations and clarifications to the contract documents, as needed, to respond to the RFIs. For budgeting purposes, 100 RFIs have been assumed with a 6-hour review time. The budget allocated for this task may increase or decrease depending on the final number of RFIs and the complexity of the RFIs submitted by the contractor.
3. **Review Submittals**. Review and provide comments on submittals and shop drawings from the Contractor forwarded by the District Construction Manager. Submittals will be reviewed for compliance with the contract documents and submittal review comments with submittal status will be returned to the District Construction Manager for processing and distribution to the contractor. For budgeting purposes, 100 submittals have been assumed with an average review time of 6 hours per submittal. Approximately 50 submittals are assumed to need a re-submittal with an average review time of 4 hours per re-submittal. A submittal list is included in Attachment A.
4. **Design Clarifications**. Prepare design clarifications to clarify and/or change the intent of the contract documents at the request of the District. Issue revised specifications, drawings, and/or sketches, as necessary, to convey the changes. Up to 24 design clarifications have been budgeted.
5. **Record Drawings**. Prepare record drawings using Carollo's standard format to include changes made during the construction period after contract closeout. Record drawings will be based on contractor and District redlines that will be maintained throughout the construction duration to document field changes, RFIs, and clarifications. The District Construction Manager will compile both District and contractor redlines into a single set of redlines and provide to the Engineer for development of record drawings.

Subtask Consultation During Construction Assumptions

1. Consultant will not attend weekly construction meetings.
2. RFI responses assume 6 hours of review time.
3. Submittal responses assume 6 hours of review time and 4 hours for resubmittal review time.
4. Design Changes assume 6 hours of review time.
5. Record Drawings assumes 50 sheets and 3 hours per sheet.
6. Site visits assume 4 hours each visit, 2 consultants attending and 4 total site visits.
7. Meetings assume 1 hour per meeting, 3 consultants attending and 10 total meetings.

8. Return reviewed submittal with stamp of disposition within 30 days of receipt from the District.
9. Return reviewed RFI with stamp of disposition within 21 days of receipt from the District.
10. Engage the services of the Professional of Record (POR) on all matters involving design changes.

Subtask Consultation During Construction Deliverables

1. 100 RFI Responses.
2. 100 Submittal Responses and 50 Resubmittal Responses.
3. 24 Design Change Deliverables.
4. Record Drawings.

Clackamas County Water Environment Services
Amendment 4 - Additional Scope and ESDC for Middle Segment
Level of Effort Estimate Detail - Carollo and Subconsultants
June 2026

WORK TASKS	Total Amendment Cost
TASK 100 - PROJECT MANAGEMENT	
1. Team Coord & Monthly Status Reports	$15,263.36
Task 100 Subtotal	**$15,263.36**
TASK 350 - FINAL DESIGN	
1. Additional Potholing	$21,996.45
2. Additional Topographic Survey (Deer and Mt. Scott Creeks)	$11,650.10
3. Hydraulic Analysis & Design	$34,130.44
4. 60% Plans and Specifications	$13,919.80
5. 90% Plans and Specifications	$11,285.79
6. 100% Plans and Specifications	$11,025.00
7. Additional Topographic Survey (SE 98th Ave)	$10,614.78
Task 350 Subtotal	**$114,622.36**
TASK 400 - OPINION OF PROBABLE COST (OPCC)	
1. OPCC for Fish Passage & Bank Restoration	$1,706.67
Task 400 Subtotal	**$1,706.67**
TASK 700 - PERMITTING ASSISTANCE	
1. Fish Passage Plan Support	$15,446.89
2. ESH/EFH Crosscutter Documentation	$24,567.06
Task 700 Subtotal	**$40,013.95**
TASK 1000 - Engineering Services During Construction	
RFI Review	$126,392.61
Submittal Review	$236,215.95
Design Changes	$26,335.67
Record Drawings	$24,422.38
Meetings/ Site Visits	$17,422.26
Task 1000 Subtotal	**$430,788.87**
Total Amendment Amount	**$602,395.22**

Attachment A - Middle Interceptor Submittal List

APPROXIMATE INITIAL SUBMITTAL COUNT	97	
SPECIFICATION SECTION	**DESCRIPTION**	**SUBMITTAL**
01_14_00	WORK RESTRICTIONS	EXISTING SEWER TIE-IN CONNECTION
01_29_73	SCHEDULE OF VALUES	PRELIMINARY SCHEDULE OF VALUES
01_32_21	SCHEDULES AND REPORTS	SCHEDULE OF SUBMITTALS
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #1
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #2
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #3
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #4
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #5
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #6
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #7
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #8
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #9
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #10
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #11
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #12
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #13
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #14
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #15
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #16
01_32_21	SCHEDULES AND REPORTS	BASELINE PROGRES SCHEDULE #17
01_32_21	SCHEDULES AND REPORTS	FINAL SCHEDULE
01_32_34	PHOTOGRAPHIC AND VIDEOGRAPHIC DOCUMENTATION	PHOTOGRAPHER QUALIFICATIONS
01_32_34	PHOTOGRAPHIC AND VIDEOGRAPHIC DOCUMENTATION	PRE-CONSTRUCTION PHOTOGRAPHS
01_32_34	PHOTOGRAPHIC AND VIDEOGRAPHIC DOCUMENTATION	POST-CONSTRUCTION PHOTOGRAPHS
01_35_21	SELECTIVE ALTERATIONS AND DEMOLITION	PIPE ABANDONMENT PLAN
01_35_61	WORK WITHIN PUBLIC RIGHT-OF-WAY	ENCROACHMENT PERMIT
01_55_26	TRAFFIC CONTROL	TRAFFIC CONTROL PLAN
01_55_26	TRAFFIC CONTROL	NOTIFICATION PLAN
01_56_39	TEMPORARY TREE AND PLANT PROTECTION	PROTECTION ZONE EXHIBIT
01_57_00	ENVIRONMENTAL CONTROLS	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
01_57_13	TEMPORARY EROSION AND SEDIMENT CONTROL	EROSION AND CONTROL PLAN
01_71_23	FIELD ENGINEERING	PRE-EXCAVATION REPORT
01_77_00	CLOSEOUT PROCEDURES	PROJECT RECORD DOCUMENTS
02_41_00	DEMOLITION	DEMOLITION PLAN
02_61_13	EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL	CONTAMINATED MATERIALS MANAGEMENT PLAN
02_61_13	EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL	SITE-SPECIFIC HEALTH AND SAFETY PLAN
03_11_07	CONCRETE FORMWORK	CONCRETE FORMWORK
03_15_00	CONCRETE ACCESSORIES	CONCRETE ACCESSORIES
03_15_14	HYDROPHILIC RUBBER WATERSTOP	WATERSTOP PRODUCT DATA

03_15_15	THERMOPLASTIC ELASTOMERIC RUBBER WATERSTOPS	WATERSTOP PRODUCT DATA
03_20_00	CONCRETE REINFORCING	REBAR SHOP DRAWINGS
03_20_00	CONCRETE REINFORCING	REBAR MILL CERTIFICATES
`	CAST-IN-PLACE CONCRETE	CONCRETE MIX DESIGN (CLASS "A" CONCRETE)
03_30_00	CAST-IN-PLACE CONCRETE	CONCRETE MIX DESIGN (CLASS "C" CONCRETE)
03_30_00	CAST-IN-PLACE CONCRETE	CONCRETE MIX DESIGN (4,500 PSI)
03_60_00	GROUTING	CEMENT GROUT
03_63_01	EPOXIES	ADHESIVE EPOXY
03_63_02	EPOXY RESIN/PORTLAND CEMENT BONDING AGENT	CEMENT BONDING AGENT - PRODUCT DATA
03_64_25	HYDROPHILIC AND HYDROPHOBIC FOAM POLYURETHANE RESIN INJECTION SYSTEM	RESIN INJECTION SYSTEM - PRODUCT DATA
07_92_00	JOINT SEALANTS	JOINT SEALANT - PRODUCT DATA
09_96_01	HIGH-PERFORMANCE COATINGS	HIGH PERFORMANCE PAINT
09_97_18	MANHOLE AND STRUCTURE REHABILITATION AND CORROSION PROTECTIVE COATING SYSTEM	PRODUCT DATA
09_97_18	MANHOLE AND STRUCTURE REHABILITATION AND CORROSION PROTECTIVE COATING SYSTEM	MANUFACTURER'S WRITTEN WARRANTY
09_97_18	MANHOLE AND STRUCTURE REHABILITATION AND CORROSION PROTECTIVE COATING SYSTEM	CERTIFICATION OF APPLICATOR
09_97_18	MANHOLE AND STRUCTURE REHABILITATION AND CORROSION PROTECTIVE COATING SYSTEM	APPLICATION PLAN
10_14_00	SIGNAGE	PROJECT SIGN
31_09_13	GEOTECHNICAL INSTRUMENTATION AND MONITORING	PRECONSTRUCTION SURVEY
31_09_13	GEOTECHNICAL INSTRUMENTATION AND MONITORING	POST CONSTRUCTION SURVEY
31_09_13	GEOTECHNICAL INSTRUMENTATION AND MONITORING	INSTRUMENTATION AND MONITORING WORK PLAN
31_09_13	GEOTECHNICAL INSTRUMENTATION AND MONITORING	MONITORING DATA
31_23_22	DEWATERING	GROUNDWATER CONTROL PLAN
31_23_24	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	MIX DESIGN
31_23_35	TRENCHING	COMPACTION TEST RESULTS
31_32_18.02	FILTER FABRIC	FILTER FABRIC
31_32_18.04	STABILIZATION FABRIC	STABILIZATION FABRIC
31_50_00	EXCAVATION SUPPORT AND PROTECTION	EXCAVATION AND TRENCHING PLAN
32_11_23	AGGREGATE BASE COURSES	AGGREGATE BASE COURSE
32_12_16	ASPHALT PAVING	PAVING MIX DESIGN - ARTERIAL
32_12_16	ASPHALT PAVING	PAVING MIX DESIGN - HIGHWAY
32_12_16	ASPHALT PAVING	PAVING MIX DESIGN - DRIVEWAY

32_16_14	CONCRETE CURBS, GUTTERS, AND SIDEWALKS	CURB FINISHING MORTAR
32_17_23	PAVEMENT MARKINGS	PAVEMENT MARKING
32_17_23	PAVEMENT MARKINGS	PAVEMENT MARKING PLAN
32_90_00	PLANTING	PLANTING
32_92_19	SEEDING	PRODUCT DATA
32_92_19	SEEDING	QUALIFICATION DATA
33_01_30.12	CCTV INSPECTION OF SEWER PIPELINES	CCTV INSPECTION VIDEO
33_01_30.78	SLIPLINING WITH SEGMENTED LINER PIPE	DESIGN COMPUTATIONS
33_01_30.78	SLIPLINING WITH SEGMENTED LINER PIPE	SLIPLINING PLAN
33_01_35	SEWER PIPE AND STRUCTURE CLEANING	CLEANING PLAN
33_05_00.03	PIPE IDENTIFICATION	TRACER WIRE
33_05_00.03	PIPE IDENTIFICATION	WARNING TAPE
33_05_00.09	PIPING SYSTEMS TESTING	SCHEDULE AND NOTIFICATION OF TESTS
33_05_00.09	PIPING SYSTEMS TESTING	PIPE SYSTEM TEST REPORT
33_05_01	SUBSURFACE UTILITY ENGINEERING	POTHOLE LOG
33_05_01	SUBSURFACE UTILITY ENGINEERING	SUE SEQUENCING PLANS
33_05_11	TEMPORARY BYPASS PUMPING	TEMPORARY BYPASS PUMPING PLAN
33_05_31.12	POLYVINYL CHLORIDE (PVC) PIPE: GRAVITY	PRODUCT DATA
33_05_31.15	POLYVINYL CHLORIDE (PVC) PIPE: PRESSURE	PRODUCT DATA
33_05_35.67	FIBERGLASS REINFORCED POLYMER MORTAR PIPE (FRPMP) FOR OPEN-CUT AND	PRODUCT DATA
33_05_35.67	FIBERGLASS REINFORCED POLYMER MORTAR PIPE (FRPMP) FOR OPEN-CUT AND	SHOP DRAWINGS
33_05_35.67	FIBERGLASS REINFORCED POLYMER MORTAR PIPE (FRPMP) FOR OPEN-CUT AND	DESIGN CALCULATIONS
33_05_35.67	FIBERGLASS REINFORCED POLYMER MORTAR PIPE (FRPMP) FOR OPEN-CUT AND	CERTIFICATION OF COMPLIANCE
33_05_35.67	FIBERGLASS REINFORCED POLYMER MORTAR PIPE (FRPMP) FOR OPEN-CUT AND	PUSH-ON COUPLING
33_05_78	FIBERGLASS (FRP) MANHOLES	PRODUCT DATA
33_05_78	FIBERGLASS (FRP) MANHOLES	SHOP DRAWINGS
33_05_78	FIBERGLASS (FRP) MANHOLES	CALCULATIONS

Signature: Carla Atwood

Email: CarlaAtw@clackamas.us