CONSTRUCTION QUALITY ASSURANCE PLAN

FOR THE

Eastsound Sewer and Water District
WASTEWATER TREATMENT PLANT UPGRADE – PHASE 2

Prepared for:

EASTSOUND SEWER AND WATER DISTRICT

By:

WILSON ENGINEERING, LLC
Project # 2023-123

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1.0 INTRODUCTION

This plan describes the services that will be provided by Wilson Engineering during the construction of the Eastsound Sewer and Water District Wastewater Treatment Plant (WWTP) Upgrade Project. This plan has been prepared in accordance with the Washington Administrative Code (WAC #173-240-075). It is to be used for guidance by the District and their representatives responsible for quality assurance during this project.

1.1 Purpose and Scope

The purpose of this CQA Plan is to identify procedures that will be used to obtain independent, documented confirmation that standards of quality required by the contract plans and specifications for the construction of the Eastsound WWTP Upgrade project are met. This CQA Plan:

- Identifies the organization, roles, and responsibilities of individuals who will be participating in the project during construction.
- Provides a construction schedule with a summary of planned construction activities, their sequence, interrelationships, durations, and terminations.
- Briefly summarizes the minimum qualifications of lead project participants from the Engineer's and Contractor's organizations.
- Describes the construction inspection program that includes inspection responsibility, anticipated inspection frequency, deficiency resolution, and inspector qualifications.
- Describes key activities that will take place and processes that will be used to meet the quality standards, including communication, technical records handling, review and observation functions, sampling and testing requirements, acceptance/rejection criteria that will be followed, and corrective measures to be used when deficiencies are found.
- Includes a summary of documentation procedures for work clarification and changes to the work.

1.2 Key Terms

Four related but independent processes will be used during construction to verify that the standards of quality identified in the Contract Documents are met. These processes are Construction Quality Assurance (CQA), Construction Quality Control (CQC), Project Management (PM) and Construction Management (CM). Definitions for each of these processes follow:

- **Construction Quality Assurance**. Refers to a system of activities that provide adequate documentation and confidence that a facility is constructed as specified in design and that the materials used in construction are manufactured according to specification. Construction quality assurance is performed by the Engineer and generally includes observations, verifications, audits, sampling and evaluation of materials and workmanship necessary to determine and document the quality of the constructed facility.

- **Construction Quality Control**. Refers to a planned system of actions taken by manufacturers, fabricators, or the Contractor to monitor and control the quality of products and work to meet the requirements of the contract. Quality control includes inspections and testing to directly monitor the quality of all furnished, constructed, and installed components. CQC activities are the responsibility of the Contractor. They are independent of CQA activities.

- **Project Management.** Refers to those activities taken to control and administer the project, including monitoring project schedule, reviewing and acting on requests for payment, and coordinating changes to contract documents resulting from changed site conditions or the selection of alternative methods of construction or installation. The Engineer will be responsible for these activities.

- **Construction Management**. Refers to those activities taken to control and administer the construction project, including conducting project meetings, monitoring and maintaining project schedules, submitting requests for changes to the contract, and coordinating subcontractors. The Contractor will be responsible for these activities.

1.3 Reference Documents

This plan is not part of the construction Contract Documents for the project. However, the Contract Documents issued for construction are referenced extensively by this plan. Additionally, several other documents may be referenced for information pertaining to the project and the system/facilities. A list of available reference documents is provided below.

- ***Construction Contract Documents (plans and specifications)***, Eastsound Sewer and Water District WWTP Upgrade Phase 2, Wilson Engineering, Plans Dated: January 2025, Specifications Dated: January 2025.

- ***WSDOT Standard Specifications for Road, Bridge, and Municipal Construction***, Washington State Department of Transportation, 2024 Edition, M 41-10.

A copy of these references will be kept in the Project Engineers office.

2.0 SCOPE OF CONSTRUCTION

This project involves civil, structural, electrical, and mechanical construction aspects for the improvements detailed within the construction Contract Documents (plans and specifications) for the Eastsound Sewer and Water District WWTP Upgrades.

Phase 2 includes the following scope:

1) Removal of the existing structure over treatment train 1 and 2 while maintaining facility operation and protecting existing equipment.
2) Sawcut and remove the existing concrete foundation around trains 1 and 2, leaving a portion north of train 1 for the future dewatering building.
3) Removal of existing treatment trains 1 and 2 and constructing two new bullseye style treatment trains within the footprints. The new trains will incorporate a Bardenpho treatment process with anoxic basins, aeration basins, and a new clarifier.
4) Construction of a new metal-frame, insulated, and heated dewatering building.
5) Construction of a new concrete slab and installation of a new sludge storage container, level loader, support frame, crane system, and conveyor.
6) Installation of new drainage infrastructure.
7) Installation of new air piping.
8) Installation of new sanitary sewer piping.
9) Construction of a new concrete slab around the new trains 1 and 2 and the existing UV chamber and digester.
10) Construction of new concrete pads for a new removable davit crane and for effluent sampling station.
11) Sawcut existing road and install new conduit and pull boxes for fiber optic communication cables.
12) Install new influent pump station drain pipe with camlock connection.
13) Sawcut and remove the existing asphalt parking area and sidewalk. Pour new asphalt, a new 5'-wide concrete sidewalk, and paint new parking stall striping.
14) Install new chain-link fencing and ingress/egress gates.
15) Install new 3" PVC piping and valves into existing septage storage tanks with camlock connections.
16) Relocation and construction of a small shelter for the 2W bladder tanks and appurtenances.
17) Renovation of the lab room, including the removal of old equipment and installation of new equipment.

Contract Documents issued for construction of this project were prepared by Wilson Engineering. These documents detail work associated with the improvements, the Contractor's responsibilities, the Engineer's authority and the Owner's requirements.

3.0 PRELIMINARY CONSTRUCTION SCHEDULE

A preliminary construction schedule for the Eastsound WWTP Upgrade project is illustrated in Figure 3-1.

A critical path method (CPM) construction schedule reflecting detailed activities, sequencing and project duration is required by Section 01 31 00 of the Specifications. The Contractor will provide a construction schedule at the Preconstruction Meeting. A copy of the CPM schedule will be kept on file in the Contractor's field office.

CPM schedule shall be updated monthly, with each pay request. No monthly progress payments will be made to the Contractor until an updated schedule is received. A copy of each updated CPM schedule will be kept in the Contractor's field office.

4.0 PROJECT RESPONSIBILITIES

The major parties involved in the construction phase of this project are the Owner, the Contractor, and the Engineer. Only the Owner and the Contractor are parties to the Contract Documents. The Engineer serves as the representative of the Owner for the purpose of providing CQA and PM services, as well as technical support, as requested by the Owner.

4.1 Project Organization

The key personnel and the relationships between the Owner and the CQA organization are shown in Figure 4-1. Lines of communication are discussed in Section 6.

A revised project organization chart, identifying specific project personnel and associated addresses and telephone/fax numbers will be prepared and distributed following Contract Award and the Preconstruction Conference.

In general, responsibilities for the Eastsound WWTP Project are as follows:

- Contract Execution and Administration — Owner
- Project Management and Administration — Engineer
- Construction Management & Quality Control — Contractor
- Construction Quality Assurance — Engineer and Owner
- Design Assistance During Construction — Engineer

4.2 Owner

The Owner of this project is the Eastsound Sewer and Water District. The District is responsible for funding the project. The District has ultimate responsibility for making decisions regarding acceptance of the work.

Responsibilities as the Owner includes:

- Approval of pay requests following review and recommendation by the Engineer.

- Approval of contract change orders, request for information, and work directives following review and recommendation by the Engineer.
- Attendance of preconstruction conference, progress meetings, and other meetings as necessary.
- Daily inspection of Contractor's work, including documentation with photographs and field notes.

4.2.1 WWTP Chief Operator

The General Manager for the District, Mr. Jason Bradshaw, is responsible for the operation and maintenance of the Treatment Plant.

It is the responsibility of the Contractor to coordinate construction activities within and around the treatment plant with Mr. Bradshaw so that services are not interrupted. The Contractor shall schedule work so as to minimize interruption of these utilities. The Contractor shall take all steps necessary to ensure that the utilities, or temporary utilities, remain operational to the satisfaction of Mr. Bradshaw.

Responsibilities of the General Manager include:

- Review and approval of the Contractor's schedule for compatibility and coordination with the Treatment Plant.
- Notifying the Contractor in the event that the construction activities are deemed detrimental to public utilities.
- Attendance of preconstruction conference, progress meetings, and other meetings as necessary.
- Review of specific technical submittals and operation and maintenance manuals, for compatibility with the existing system and operations.

4.3 Contractor

The Contractor selected for this project will have the authority and responsibility to perform construction activities within the binding terms of the agreement and contract between the Owner and the Contractor.

The Contractor must be licensed with the State of Washington. In addition, the Contractor will be required to demonstrate qualifications and experience of subcontractors performing specialized components of the work.

To accomplish the work, it is anticipated that the Contractor will designate individuals to serve as the Contractor's Project Manager and the Contractor's Superintendent throughout the duration of the project.

In conformance with WAC 173-351, the Contractor will be responsible for construction quality control (CQC). Specifically, the Contractor will be responsible for providing evidence of the

Contractor's and subcontractor's qualifications, submitting manufacturer's/supplier's documentation and certifications, and performing the work in accordance with the Contract Documents. The Contractor's responsibilities are fully defined in the contract documents and include all of the work that the Contractor may delegate to subcontractors.

The Contractor is responsible for the development of a construction schedule and maintaining that schedule. The schedule is intended to provide a basis for the Contractor to manage progress, coordinate activities and initiate corrective action as necessary.

It is the responsibility of the Contractor to maintain and conduct its operations in a safe manner. The Contractor and each subcontractor are responsible for creating a site-specific safety and health plan (SHP) for their respective personnel at the project site. All of the Contractor's personnel performing or observing work at the site will be responsible for conforming to the requirements of the Contractor's SHP. If any of the Contractor's staff observe any unsafe condition or practice, they should notify the Contractor's Superintendent.

4.4 Engineer

The Engineer for this project, Wilson Engineering, will perform project management services and construction quality assurance services in accordance with WAC 173-240, and as described in this CQA Plan. The work scope for project management and CQA generally include observation and documentation of construction, review of materials/equipment submittals, office engineering, preparation of change orders, review of progress payments, testing of materials, preparation of an operation and maintenance manual, and preparation of contract record drawings.

Wilson Engineering has subcontracted portions of the services during construction to the following subconsultants:

- Electrical Engineering — Ztek, Engineers
- Geotechnical Engineering — GeoEngineers
- Structural Engineering — Kingworks

Wilson Engineering is responsible for coordinating subconsultant activities, maintaining records, and functioning as point of contact between the subconsultants and the Owner and Contractor.

4.4.1 Project Engineer

The Project Engineer for Wilson Engineering, Jeff Christner P.E., is responsible for overall engineering administration for this project. Responsibilities as the engineering contract administrator include:

- Budget management for engineering services during construction.
- Supervision and coordination of the Office Engineer and Inspector.

- Coordinating activities, including overall responsibility for the performance of the engineering services during construction.
- Coordination with the District and Contractor regarding engineering issues.
- Attendance of preconstruction conference and other meetings as necessary.
- Preparation, Approval and recommendation of final contract change orders, requests for information, and work directives.
- Review of technical submittals, shop drawings and manufacturer's literature for conformance with the Contract Documents.
- Provision of technical design support during construction including coordination with subconsultants.
- Maintenance of project files, including distribution.
- Attendance of preconstruction conference, progress meetings, and other meetings as necessary.

4.4.3 Inspector

The primary Inspector for Wilson Engineering, Steve Elliott, is responsible for weekly onsite construction quality assurance visits for check-in, observation, and documentation. The Inspector and construction quality assurance staff's responsibilities include:

- Quality assurance activities including observation and documentation of the Contractor's activities and verification that the Contractor is satisfying the requirements of the Contract Documents.
- Coordination with other CQA agencies and subcontractors to provide testing and inspection activities.
- Coordination with the District and Contractor regarding engineering issues.
- Attendance of preconstruction conference, progress meetings, and other meetings as necessary, including preparation of draft meeting minutes.

5.0 CONSTRUCTION OBSERVATION

5.1 Project Staffing and Effort

On-site construction observation will be performed by the District and a part-time Wilson Engineering personnel. Wilson Engineering will schedule on-site construction observation at least 1 day per week. Additional Wilson Engineering personnel and subcontracted personnel will be utilized on an as-needed basis. Duties of on-site personnel will primarily involve observation and documentation of construction activities, verification of conformance with Contract Documents, performance and coordination of CQA activities, as well as communication with the office engineering staff, Owner, Contractor, and others.

5.2 Observation

Construction observation activities performed by the onsite construction quality assurance personnel include the following:

- Verify that materials delivered to the project site are consistent with the requirements specified in the Contract Documents and the reviewed submittals.
- Observe all phases of construction and documentation of the Contractor's compliance or noncompliance with the Contract Documents, and verifying the correction of any defective work.
- Confirming that lines and elevations have been verified by the Contractor prior to subsequent component construction.
- Observation and documentation of construction quality control work performed by the Contractor.
- Documentation of in-place quantities completed by the Contractor.
- Review of Contractor's updated monthly work schedules and comparison with actual progress.

These construction observation activities do not relieve the Contractor from meeting the requirements set forth in the Contract Documents.

5.3 Documentation

Documentation for this construction contract may be divided into the following categories: Reports, Photographs, Quantities, Pay Requests, QA/QC Test Results, and Contract Correspondence.

Technical records handling is discussed in Section 8.

5.3.1 Reports

Daily Reports

Each construction observer, including construction quality assurance testing personnel will be required to write a daily report documenting the contract work that was performed. Daily reports will include information on the weather, site conditions, visitors to the project site, Contractor's equipment and personnel, as well as the specific contract work (including quantities) performed by the Contractor. Discussions and conversations between the Contractor, Engineer, and Owner will also be documented in the daily reports. Copies of the daily reports will be distributed to the Owner and the Engineer.

Weekly Tracking of Working Days

Each week, the Inspector will track Working Days. The Inspector's Working Day summary spreadsheet will be maintained at the job shack. Workable days and unworkable days will be

documented, based on weather conditions. The Working Day summary spreadsheet can be requested and viewed by Owner/Engineer/Contractor when desired.

5.3.2 Photographs

Each onsite construction observer will also document work progress using date-back photographs. Photographs will be used to document as-constructed conditions as well as conflict areas. Photographs will be logged by date and photograph number, and include a brief description of the subject matter. Copies of the construction photographs will be kept in the Contractor's field office.

5.3.3 Quantities

The Inspector will maintain documentation of in-place quantities. The documentation will include measurements, calculations, weight tickets, and other back-up as required, tabulated per bid item or schedule of value item. In the case of the unit price bid items, a summary sheet for each bid item will also be maintained. This documentation will be used to determine the monthly pay requests.

5.3.4 Pay Requests

The Contractor is required to submit pay requests to the Engineer for review. Following review, the Engineer makes a recommendation to the Owner for an amount due to the Contractor. Quantity documentation described in Section 5.3.3 is used to assist the Engineer with the recommendation process.

Copies of each executed pay request will be maintained in the Contractor's field office. The pay request file will also include pay request summary.

5.3.5 QA/QC Test Results

Quality assurance and quality control testing is discussed further in Section 7. Test results will be documented by the responsible party. Copies of the test results will be forwarded to the Owner, the Engineer, the Contractor, and the Contractor's field office. Complete testing records will be kept on file in the Contractor's field office.

5.3.6 Contract Correspondence/Files

Official contract correspondence files will be kept in the Engineer's office; however, the Inspector will also maintain contract correspondence files in the field office. Correspondence files including letters, memorandums, facsimile correspondence and telephone conversation records will be on file for correspondence with the Owner, the Contractor, and Subconsultants.

In addition, complete contract correspondence files, including Request For Information (RFI), Work Directives (WD), and Change Orders will be maintained in the Contractor's field office.

5.3.7 Forms

A variety of forms will be used to document the work performed by the Contractor. These forms may be supplied by the Contractor and additional forms may be developed for specific applications.

5.4 Acceptance/Rejection Criteria

The criteria for acceptance or rejection of all elements of work will be as stated in the contract documents. Regular checks will be made through field and laboratory testing to ensure that the Contractor's quality control procedures are adequate. The Contractor will receive copies of test results. Test results that fail to meet the required value within statistical variations will require corrective action.

5.5 Corrective Measures

Corrective measures will be implemented as necessary to bring the work to the required quality and may include replacement of the work. Where replacement of work is required, the area to be replaced will be defined and documented by the Inspector with input, as appropriate, by CQA personnel based on test results, visual analysis, and professional judgment. Replacement of work may include special measures at borders of such areas to provide continuity.

Any deficiencies identified will be rectified upon discovery and subsequent Contractor notification. If deficiencies identified during construction are not rectified upon the Engineer/Owner's request, payment for non-conforming work will be withheld until the corrections are complete.

6.0 COMMUNICATION

6.1 General

Project communication includes verbal discussions between the Engineer and the Contractor, formal written correspondence and project meetings. Verbal discussions in the field will be documented in daily reports or on telephone conversation record forms and may be followed by formal written correspondence.

6.2 Correspondence

Daily correspondence and communication will occur between the Inspector and Contractor in the field. However, all formal correspondence issued by the Contractor shall be directed through the Wilson Engineering's Office Engineer. Furthermore, all formal correspondence from the Engineer or Owner will be issued through the Project Engineer. Copies of all formal correspondence will be distributed to both the Inspector in the field and the Owner, as appropriate.

6.3 Project Meetings

Project meetings will be scheduled to define and maintain responsibility and authority by promoting communications among the various personnel responsible for designing, constructing, managing, and observing the construction. The Engineer will be responsible for conducting these meetings. Meeting minutes will be taken and distributed to all attendees and appropriate non-attending personnel.

At a minimum, all meetings will be attended by a representative of the District, the Engineer, and the Contractor.

6.3.1 Preconstruction Meeting

A meeting will be held prior to the start of construction to review the project and schedule and to clarify or resolve issues before construction startup. At a minimum, the Owner, Wilson Engineering's Office Engineer, Inspector, the Principal-in-Charge, the Contractor's Project Manager, and the Contractor's Superintendent should be present. During this meeting the Engineer will:

- Provide each party with relevant construction documents and supporting information. Supporting information may include construction drawings, specifications, CQA plans, and other applicable documents. This information transfer is not limited to documents distributed by the Engineer. The Contractor will submit a schedule of values and other documents as required. All parties should use the opportunity to distribute relevant documents.
- Review the General Conditions, Supplementary Conditions, and Division 1, General Requirements. Identify project limitations, permit requirements, and coordination with other possible contractors and utilities.
- Review the responsibilities of each party as outlined in the contract documents relative to the construction drawings, schedules, and specifications. Discuss specific milestone dates, project sequencing, working hours, water handling requirements, etc.
- Discuss the purpose of this CQA Plan and the documentation structure provided by it as a means of verifying that the facility will be constructed efficiently and within the specified design criteria and schedule.
- Review lines of authority and communication for each party.

- Discuss the established procedures and protocol for observations and tests, including sampling strategies.
- Discuss the established procedures and protocol for handling construction deficiencies, repairs, and retesting.
- Discuss the established procedures and protocol for handling contract questions/clarifications and contract modifications (change orders, work directives, etc.).
- Review methods for documenting and reporting inspections and testing data.
- Review work area security traffic control and safety protocol.
- Conduct a site walk to review construction material and equipment storage locations.
- Discuss Contractor's plans for site logistics including staging area location and preparation, field office setup and utility plans, and onsite parking.
- Discuss payment for work in place including method of payment and unit price work.

6.3.2 Monthly Progress Meetings

Monthly progress meetings will be held at the site according to a schedule agreed to by all parties. The purpose of the progress meetings is to:

- Review the previous week's activities and accomplishments. Discuss status of critical work elements.
- Review the Contractor's work plan and anticipated Quality Control Testing for the upcoming month.
- Determine schedule for the Engineer's technical support staff or subcontractor's personnel to witness specified testing.
- Discuss existing or potential design, construction or schedule issues, including delivery of any long-lead items.
- Discuss construction impacts on WWTP and utility operations; or constraints on construction activity dictated by WWTP and utility operations.
- Discuss status of submittal review.
- Discuss status of contract modifications.

The progress meetings will be documented by the Inspector or a designated representative. Copies of the meeting minutes will be sent to all personnel attending the meeting and others as applicable.

6.3.3 Work Deficiency Meetings

Special meetings may be held if a problem or deficiency is observed or is thought to be likely to occur. At a minimum, such meetings will be attended by the Inspector and Contractor's Superintendent. CQA Personnel and Wilson Engineering's Office Engineer may also attend these meetings if necessary.

The purpose of these meetings will be to resolve problems or recurring work deficiencies by defining and discussing the problem or deficiency, reviewing alternative solutions, and implementing plans for resolution.

These meetings will be documented by the Inspector or a designated representative. Copies of the meeting minutes will be sent to all personnel attending the meeting and others as applicable.

6.3.4 Other Meetings

If necessary, additional meetings may be scheduled to discuss specific design and/or construction issues.

6.4 Coordination

Installation of the new facilities and conversion from the existing systems to the newly constructed facilities will require coordination and clear communication. The Contractor must coordinate his efforts so that construction activities do not adversely affect existing systems and utilities. Clear communication will facilitate the coordination process.

6.4.1 Coordination with Owner's Facilities

It is the responsibility of the Contractor to coordinate his work so that impacts to the Owner's facilities are minimized. The District must continue to provide uninterrupted wastewater treatment throughout the duration of the construction contracts.

6.4.2 Coordination with Utilities

Several existing utilities, including water service, natural gas, power, and fiber optic telephone service utilities are located within the project areas. It is the responsibility of the Contractor to coordinate construction activities so that interruptions in service are minimized. The Contractor may address correspondence directly to the affected utility; however, the Engineer must receive copies to verify that the intent of the design is maintained and that the interests of the Owner are not adversely affected.

7.0 QUALITY ASSURANCE/QUALITY CONTROL TESTING

7.1 General

Testing will be performed to verify that the work performed by the Contractor satisfies the requirements of the Contract Documents.

7.2 Quality Assurance/Quality Control Testing

Quality assurance and quality control (QA/QC) testing is to be coordinated and scheduled by the Contractor, and costs for GeoTest Services will be paid by the Engineer. Testing is performed to determine and document the quality of the constructed facility. Testing associated with these construction projects includes the following:

7.2.1 Site Work

Testing associated with the site work portion of the work includes sampling and sieve analysis of earthwork materials and compaction testing.

Sampling, Sieve Analysis, and Compaction Testing
The Contractor is responsible for providing initial QC sieve analysis associated with all the earthwork materials and aggregates to be used during construction. However, the Engineer may take independent samples and perform QA testing to verify the results of the QC testing and document that the material actually being used meets the requirements of the Contract Documents. In addition, the Contractor is to test earthwork materials as necessary and per the frequency called out in the Specifications, to confirm material is compacted adequately.

7.2.2 Concrete

QA testing associated with the cast-in-place concrete portion of the work includes sampling and testing of concrete materials to verify compliance with the requirements of the Contract Documents. Concrete QA sampling and testing includes the following:

- Measure Concrete Slump
- Measure Air Entrainment
- Prepare Concrete Test Cylinders and Perform Compressive Strength Tests

QA testing will be performed on all cast-in-place concrete. Concrete slump, temperature, and air content shall be tested on each initial load delivered to the project and any subsequent load as deemed necessary by the Engineer's onsite representative. Four concrete test cylinders will be prepared (for each different mix) each day or every 150 cubic yards, whichever is less.

7.2.3 Concrete Structure Leakage Testing

Cast-in-place concrete structures designed to hold water must undergo watertightness testing. The Contractor will perform watertightness testing on the new plant structures as identified in 01 50 00 – Temporary Facilities, 1.04 C. Clean Water Testing. Testing results will be recorded by the Inspector.

7.2.4 Equipment Start-up and Operational Testing

Equipment installed will be subject to operational testing as part of the start-up procedures. Operational testing requirements are specified in Section 01 91 00 of the Specifications, as well as in each specified equipment specification section. Start-up and operational testing shall be performed by the Contractor, in the presence of the Engineer, prior to acceptance of the work.

7.2.5 Pipe Testing

The Contractor is responsible for testing all pipe installations. The specific requirements associated with each pipe installations are defined in each pipe specification section. Pipe testing will be performed in the presence of the Inspector. Pipe testing results will be recorded by the Inspector.

8.0 TECHNICAL RECORDS HANDLING

8.1 Submittals

Specific requirements concerning submittals are detailed in Section 01 33 00 of the Specifications. General features of the submittal process include the following.

- The Contractor shall coordinate, check and submit shop drawings, samples, catalog cuts, layouts, color charts, bills of material, etc. as specified in the Contract Documents and in each section of the Specifications.
- Form of Submittal: The Contractor shall submit a Request for Submittal Review, together with all product data, to the Engineer for review.
- Submittals will be routed through Wilson Engineering's Office Engineer.
- One original reviewed set of shop drawings and submittals will be kept in the Contractor's field office at all times.

8.2 Filing

A complete set of construction management files will be maintained at both the Contractor's field office and Wilson Engineering's office including correspondence, contract administration, pay estimates, and QA/QC testing result files.

8.3 Contract Record Drawings

The Inspector will maintain a set of Contract Documents in the field office to be updated continuously as changes/modifications occur during construction.

The Contractor is also required to maintain an updated set of Contract Documents at the construction site. Following completion of the project the Contractor must provide a complete set of contract record drawings detailing the constructed project. The Engineer will review the Contractor's record drawings and prepare the final set of contract record drawings. The final set of contract record drawings will then be submitted to the Owner.

9.0 WORK CLARIFICATION/CHANGES

During construction and as work progresses, it will be necessary to respond to the Contractor's questions (including providing technical clarification and/or instruction), provide direction to perform extra or modified work and amend the Contract (formally). The intended protocol for these procedures is outlined in the following sections. Specific requirements regarding changes to the Contract are defined in the contract documents.

9.1 Request(s) for Information

Request(s) for Information (RFI) will be used to provide written direction to clarify points or give instructions to the Contractor. All work-related questions requiring clarification or additional instruction should be initiated formally by the Contractor. The Engineer may also initiate an RFI to clarify points or provide additional detail.

9.2 Work Directive(s)

Where situations involve changes in the work which, if not processed expeditiously, might delay the project, the modifications may be initiated through use of a Work Directive. The Work Directive is not a Change Order, but only a directive issued by the Owner and Engineer to proceed with work that will be included in a subsequent Change Order. Work directives may also be used to document changes in the work that do not involve adjustments to the contract amount or contract time.

The intent of this format is to help expedite changes and modifications without delaying the construction schedule. Utilization of Work Directives will follow the procedures outlined in the Contract Documents. If deemed necessary, several Work Directives may be grouped into a single Change Order. Owner authorization may be initiated via facsimile, telephone, or in person.

9.3 Change Order(s)

The Owner, without invalidating the Contract, may order extra work or may make changes by altering or deleting any portion of the work, as deemed necessary or desirable. Extra work and changes will be executed in writing by the Owner by means of a Change Order. Change Orders are required for situations involving the adjustments of Contract Price and/or Contract Time. Change Orders shall be signed by the Owner, the Engineer, and the Contractor. The value of extra work and changes shall be determined and paid for in accordance with the Construction Contract Documents.

9.4 Review and Approval Process for Changes

Changes in the work shall be negotiated by the Owner/Engineer and the Contractor. The Owner may request that the Contractor provide a proposal detailing the impacts to the contract amount and the contract schedule associated with a proposed contract modification. In addition, change orders require review and approval by Washington State Department of Ecology (DOE) prior to execution of the change order. All Change Order and Work Directive forms require the signature of the Engineer, Owner, Ecology, and Contractor in order for a change to be valid.

Figure 3-1 – Preliminary Construction Schedule

Bid Phase

- Advertisement No.1: January 30, 2025
- Advertisement No.2: February 13, 2025
- Pre-Bid Meeting: February 12, 2025
- Bid Opening: March 5, 2025
- Notice of Award: April 8, 2025
- Preconstruction Meeting: April 30, 2025
- Notice to Proceed: April 30, 2025

Construction Phase: Critical Path May 2025 – November 2027

1. Construction Submittals: Beginning after Award (April 2025). Prioritize all long lead items.
2. Mobilize on-site: May 2025
3. Prepare SWPPP and Establish Erosion Control Measures: May 2025
4. Prepare Dewatering Plan for Excavations: May 2025
5. **Begin Stage 1** - Take Train 1 Offline: May 2025
6. Take dewatering facilities offline and construct protective plywood shelters over WAS pumps, exposed piping, the horizontal screw press, & vertical screw press: June 2025
7. Begin removal of existing building over Trains 1, 2, & dewatering facilities: June 2025
8. Sawcut and remove existing concrete slab around Trains 1 & 2: June 2025
9. Begins construction of new dewatering building: June 2025
10. Complete new dewatering building and place dewatering equipment back online: Nov 2025
11. **Begin Stage 2** – Form and pour new concrete for Train 1: Dec 2025
12. Install new Train 1 equipment: Spring/Summer 2026
13. Train 1 Start Up: Sept 2026
14. **Begin Stage 3** – Take Train 2 offline: October 2026
15. Form and pour new concrete for Train 2: Fall/Winter 2027
16. Install new Train 2 equipment: Winter/Spring 2027
17. Train 2 Start Up: July 2027
18. Final Surfacing/Pavement Work (entire site): August 2027
19. Substantial Completion Deadline: August 2027
20. Punch List Work: September 2027
21. Final Completion Deadline: October 2027

Figure 4-1 – Organization Chart