

CONTRACT PROVISIONS AND PLANS

FOR THE CONSTRUCTION OF:

Salmon Creek Treatment Plant UV System Replacement

VOLUME I – SPECIFICATIONS

Discovery Clean Water Alliance Project No. 93-2023-0048

A Discovery Clean Water Alliance Capital Project with Clark Regional Wastewater District as Administrative Lead



CLARK REGIONAL WASTEWATER DISTRICT
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March 2026

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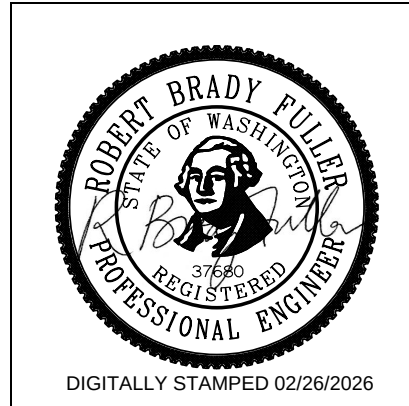
**FOR INFORMATION REGARDING
THIS PROJECT CONTACT:**

**Chris Stangl
Construction Manager
CLARK REGIONAL WASTEWATER DISTRICT
8000 N.E. 52nd COURT
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SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

SECTION 00 01 07
SEALS PAGE

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Digitally Signed on
February 26, 2026
Robert Brady Fuller

END OF SECTION

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BIDDING REQUIREMENTS

CALL FOR BIDS

Salmon Creek Treatment Plant UV System Replacement Discovery Clean Water Alliance Project No. 93-2023-0048

NOTICE IS HEREBY GIVEN that sealed bids will be received on the Clark Regional Wastewater District Procurement Portal, until 10:00 a.m., PDT on Thursday, April 23, 2026, for the Salmon Creek Treatment Plant UV System Replacement; Discovery Clean Water Alliance Project No. 93-2023-0048; and then publicly opened and read via a live Go-To-Meeting link at 11:00 a.m. PDT on Thursday, April 23, 2026. Please join from your computer, tablet, or smartphone at <https://meet.goto.com/774879213>. You can also dial in using your phone: +1 (872) 240-3311, Access Code: 774-879-213.

PROJECT SPECIFIC DESCRIPTION

This project is located at the Salmon Creek Treatment Plant, 15100 NW McCann Road, Vancouver, WA 98685.

Per RCW 39.04.320, mandatory 15% apprentice labor hours of the total labor hours are a requirement of the construction contract. Bidders may contact the Department of Labor & Industries, Apprenticeship Section, to obtain information on available apprenticeship programs.

The construction of all components of the Salmon Creek Treatment Plant UV System Replacement. Work includes disassembly and modification or demolition of an existing steel canopy at the UV facility, construction of a concrete channel (Channel 2) parallel to the existing UV disinfection channel (Channel 1), installation of a UV lamp system in Channel 2 while maintaining the existing UV system in service in Channel 1. Project includes demolition and replacement of existing equipment. Work includes excavation, reinforced concrete, electrical, instrumentation and control, yard piping, paving, and construction phase stormwater management. Diving is required to accomplish the work.

The Board of Sewer Commissioners reserves the right to waive informalities in the bidding, accept a proposal of the lowest responsible bidder, reject any or all bids, republish the call for bids, revise or cancel the work, or require the work to be done in another way if the best interest of the District is served. Award of contract is not anticipated to occur prior to May 12, 2026.

CONTRACT PROVISIONS, PLANS, AND BID PROPOSAL forms may be obtained by going to the District's procurement portal: <https://mrscrosters.bonfirehub.com>. Free vendor registration is required to use this platform.

A non-mandatory pre-bid meeting is scheduled for April 7, 2026, 9:00 a.m. All participants shall meet at the Gene Fix Operations Center at Salmon Creek Treatment Plant, 15100 NW McCann Road, Vancouver, WA 98685.

All bids must be accompanied by a bid deposit in the form of a surety Bid Bond, certified check, cashier's check, or cash in an amount equal to five percent (5%) of the amount of such proposal on or before the bid deadline provided above. The Bidder shall submit a PDF copy of the Bid Bond and provide original bid bond upon request from the District. An attorney-in-fact who signs the Bid Bond must file with each bond a certified and effectively dated copy of their Power of Attorney. If the Bidder cannot provide a Bid Bond, a certified check, cashier's check, or cash may be provided. The certified check, cashier's check, or cash must be delivered in a sealed envelope

marked with the Bid Name and Number and be received at the District office prior to the bid deadline provided above. Should the successful bidder fail to enter into such contract and furnish a satisfactory performance bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the District.

If there are questions regarding this project, please post them to the project page on the District's procurement portal. If assistance is needed with access to or registration at the District's procurement portal, please contact Michaela Loveridge at (360) 360-5382, or mloveridge@crwwd.com.

MBE/WBE firms are encouraged to submit bids. Bidders must comply with the following: the President's Executive Order #11246 prohibiting discrimination in employment regarding race, color, creed, sex, or national origin; the President's Executive Orders #12138 and 11625 regarding utilization of MBE/WBE firms; the Civil Rights Act of 1964; the Davis-Bacon Act; and Section 436 of P. L. 113-76, American Iron and Steel, and Build America, Buy America (BABA). Bidders must certify that they do not or will not maintain or provide for their employees any facilities that are segregated on the basis of race, color, creed, or national origin.

DATED this 3rd day of March, 2026.

Bill Owen  Digitally signed by Bill Owen
Date: 2026.03.03 15:02:00
-08'00'

Bill Owen, P.E.
Principal Engineer, Transmission and Treatment

NOTICE TO BIDDER

1. The District reserves the right to waive informalities in the bidding, accept a Proposal of the lowest responsible bidder, reject any and all Bids, republish the Call for Bids, revise or cancel the Work, or require the Work to be done in another way if the best interest of the District is served.
2. The District will accept only those Proposals properly executed on the physical forms it provides, or electronic forms that the bidder has been authorized to access.
3. All requests for clarification or interpretation of the Contract Provisions, including the plans, drawings, specifications, bidder criteria, or other items must be received in writing no later than five business days prior to Bid Opening.
4. In the space provided on the signature sheet, the bidder shall confirm that all Addenda have been received.
5. The bidder shall complete a sworn statement, on the Certification of Compliance with Wage Payment Statutes form provided by the District, that they have not willfully violated wage payment laws within the past 3-year period immediately preceding the date of the solicitation (RCW 39.04.350).
6. By submitting its Bid, the bidder warrants and represents that it complies with all Mandatory Bidder Responsibility Criteria as defined by RCW 39.04.350(1) and all Supplemental Bidder Criteria as described in the attached Supplemental Criteria Information Form. The lowest and second lowest responsive bidders will be requested to submit a fully executed Supplemental Criteria Information Form with documents verifying such compliance to the Contracting Agency by 12:00 p.m. (Noon) of the second business day following the bid submittal deadline.
7. In accordance with RCW 39.04.320, for all public works estimated to cost two million dollars or more, the District requires no less than 15% of the labor hours be performed by apprentices, unless otherwise stated in the bid advertisement or on the Submittal Questionnaire/Bidding Terms and Conditions. A contractor or subcontractor may not be required to exceed the 15% requirement. The Bidder shall establish a minimum required percentage of apprentice labor hours compared to the total labor hours in the Procurement Portal. The project's apprenticeship utilization rate is calculated using the approved affidavits from the L&I portal.
8. Notice Regarding Tariffs – The recent discussions, negotiations and implementation of tariffs by the U.S. Government has created some uncertainties for contractors and suppliers regarding the cost of materials, supplies or equipment which may be subject to tariffs. The District desires to avoid the uncertainties and potential financial risks associated with potential tariff increases or decreases. Therefore, the bidder's bid should include only those tariffs that are currently in effect as of the bid due date and the bidder should not speculate on the amount of any tariffs that may actually be in effect at the time of the purchase or delivery of the materials, supplies, or equipment. Any increases or decreases in applicable tariffs on materials, supplies, or equipment which are part of the bid proposal will be subject to an equitable adjustment in accordance with Paragraph 7.11 and Article 12 of the Standard General Conditions.
9. For public works projects which are expected to cost \$1,000,000 or more, the bidder shall submit, on the Subcontractor List form provided, a list of subcontractors who will perform the work of heating, ventilation, and air conditioning, plumbing as described in 18.106 RCW and electrical as described in 19.28 RCW, and structural steel installation, and rebar installation

as described in RCW 39.30.060. Please refer to the Subcontractor List section of the Bidding Requirements.

10. Please refer to Section 6.03 of the General Conditions for this project regarding Insurance requirements.
11. Proposals of corporations or limited liability companies shall be signed by the officer or member(s) having authority to sign them. If a bidder is an LLC, the Proposal shall be signed by an authorized member or manager of the LLC. When the bidder is a joint venture, the Proposal shall be signed by one or more individuals as authorized by the Joint Venture.
12. Failure to execute the "Proposal Signature Page" at the end of this proposal packet will cause the bid to be considered irregular and therefore to be rejected.
13. Federally Funding requirements apply, see Agreement. Provisions of Build America, Buy America (BABA) and American Iron and Steel (AIS) apply to this project.
14. The following forms and information must be executed in full and submitted with the Bid:
See Bidder Checklist on following pages.

PROPOSAL FORM INSTRUCTIONS

1. Bid Proposals must be submitted on the following Proposal Form provided by the Clark Regional Wastewater District (the "District"). Other forms will not be accepted.
2. Bidders shall complete the entire Proposal Form. Bidders may be deemed "non-responsive" if any sections are not filled out correctly and completely.
3. Bidders shall make no changes or amendments to the Proposal Form.
4. The submitted Proposal Form must have the signature of a representative who has the legal capacity to bind the bidder to a formal contract with the District.
5. Bid prices for all designated items, all extensions and total amount of bid must be shown.
6. All prices shall be in legible figures (not words) written in ink or typed, and expressed in U.S. dollars and cents.
7. It is understood and agreed that quantities stated in the Proposal Form (if any) are the District's estimates. Actual quantities installed are subject to final determination upon completion of the Work and prior to final acceptance.
8. The Proposal Form shall be submitted in the time and manner required in the Call for Bids.
9. This Proposal Form is not transferable, and any alteration of the firm's name entered hereon without prior permission will be cause for considering the proposal irregular and subsequent rejection of the bid.

BIDDER CHECKLIST

FORMS REQUIRED TO BE SUBMITTED WITH BID:

- PROPOSAL FORM
- CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES
- SUBCONTRACTOR LIST
- PROPOSAL SIGNATURE PAGE
- BID PROPOSAL DEPOSIT (BID SECURITY)
- FEDERAL FUNDING ATTACHMENTS
 - DBE Compliance Checklist
 - Bidder Certification Regarding Equal Employment Opportunity
 - BABA Initial Certification Statement
 - Non-Segregated Facilities Certification
 - Byrd Anti-Lobbying Amendment and Certification

FORMS REQUIRED TO BE SUBMITTED BY APPARENT LOW BIDDER AFTER THE BID SUBMITTAL, BY THE TIME SPECIFIED ON THE FORM.

- SUPPLEMENTAL CRITERIA EVIDENCE SUBMISSION AND EVALUATION

PROPOSAL FORM

To the Board of Sewer Commissioners;

From: _____

Commissioners:

Each of undersigned hereby certifies that they have examined the locations and construction details of work outlined in the Plans and Specifications for:

Salmon Creek Treatment Plant UV System Replacement, a Discovery Clean Water Alliance Capital Project with Clark Regional Wastewater District as Administrative Lead, Project No. 93-2023-0048 in Clark County, WA and have read and thoroughly understand the contract provisions, plans, and contract governing the work included in this improvement, and the method by which payment will be made for said work, and hereby proposes to undertake and complete the work included in this improvement in accordance with the said contract provisions, plans, and the following schedule of prices:

LUMP SUM BID PRICE

Item	Description	Amount
1	Lump Sum Bid Price for Trench Safety Systems (Bidder agrees to accept as full payment for trench safety systems required for all trenches in which trench excavation will exceed 4 feet)	\$
2	Lump Sum Bid Price, not including Trench Safety Systems	\$
3	Apprenticeship Utilization Incentive**	\$10,000.00
4	UV Disinfection Equipment	\$1,797,380.00
5	Subtotal (Sum of Items 1, 2, 3, and 4)	
6	Sales Tax (8.7 percent of Item 5 above)	\$
7	Lump Sum Bid Price (Sum of Items 5 and 6 from above)	\$

**APPRENTICE UTILIZATION REQUIREMENTS

The apprentice labor hours required for this project are 15% of the total labor hours, unless Good Faith Efforts are accepted. The undersigned agrees to utilize this level of apprentice participation. Apprentice utilization will be determined using the Department of Labor and Industries (L&I) online Prevailing Wage Intent & Affidavit (PWIA) system. A monetary incentive of \$10,000.00 will be paid to the contractor meeting the apprentice utilization requirement,

without a reduction by Good Faith Efforts. A monetary penalty will be applied to the Contractor failing to meet the utilization requirement, unless a Good Faith Effort is approved by the District. The penalty will be assessed for every hour of shortfall of the minimum number of required apprentice hours using the applicable published wage of a Step 1 apprentice laborer. The penalty will not exceed one percent (1%) of the total Contract Sum.

Bidder agrees to accept as full payment the Lump Sum amounts for the work proposed within the documents.

NON-COLLUSION DECLARATION

I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:

1. That the undersigned person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.
2. **That by signing the signature page of this proposal, I am deemed to have signed and have agreed to the provisions of this declaration.**

CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

The bidder hereby certifies that, within the 3-year period immediately preceding the bid solicitation date (March 6, 2026), the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of Chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Bidder’s Business Name

Signature of Authorized Official*

Printed Name

Title

Date

City

State or County

Check One:

Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation/LLC* ☐

State of Incorporation, or if not a corporation, State where business entity was formed:

If an LLC, give firm name under which business is transacted:

** If a corporation or limited liability company, this certificate must be executed in the entity’s name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If an LLC, this certificate must be executed by an authorized member or manager of the LLC.*

SUBCONTRACTOR LIST

(IF APPLICABLE, SEE RCW 39.30.060)

The Bidder shall complete and submit this form with the Bid.

The bidder shall not list more than one subcontractor for each category of work identified, unless subcontractors vary with bid alternates, in which case the bidder must indicate which subcontractor will be used for which alternate.

The work to be performed is to be listed below the subcontractor(s) name. The requirement to name the bidder's proposed HVAC, plumbing, electrical, structural steel installation, and rebar installation subcontractors applies only to proposed HVAC, plumbing, electrical, structural steel installation, and rebar installation subcontractors who will contract directly with the bidder submitting the bid to the public entity.

Failure to list subcontractors who are proposed to perform the work of HVAC (heating, ventilation and air conditioning), plumbing, electrical, structural steel installation, and rebar installation or to name itself to perform such work, or naming more than one subcontractor to perform the same work will result in your bid being non-responsive and therefore void.

HVAC

Subcontractor Name / UBI#

Work to be Performed

Plumbing

Subcontractor Name / UBI#

Work to be Performed

Electrical

Subcontractor Name / UBI#

Work to be Performed

Structural Steel Installation

Subcontractor Name / UBI#

Work to be Performed

Rebar Installation

Subcontractor Name / UBI#

Work to be Performed

SUPPLEMENTAL CRITERIA EVIDENCE SUBMISSION AND EVALUATION

As evidence that the Bidder meets the Supplemental Criteria stated above, upon request, the apparent low Bidder must submit to the Contracting Agency by 12:00 PM (noon) of the second business day following the bid submittal deadline, a written statement verifying that the Bidder meets the supplemental criteria together with supporting documentation (sufficient in the sole judgement of the Contracting Agency) demonstrating compliance with the Supplemental Criteria. The Contracting Agency reserves the right to request further documentation as needed from the low Bidder and documentation from other Bidders as well to assess Bidder responsibility and compliance with all bidder responsibility criteria. The Contracting Agency also reserves the right to obtain information from third-parties and independent sources of information concerning a Bidder's compliance with the mandatory and supplemental criteria, and to use that information in their evaluation. The Contracting Agency may consider mitigating factors in determining whether the Bidder complies with the requirements of the supplemental criteria.

The basis for evaluation of Bidder compliance with these mandatory and supplemental criteria shall include any documents or facts obtained by the Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid

Bidders with concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria may make or submit requests to the Contracting Agency to modify the criteria. Such requests shall be in writing, describe the nature of the concerns, and propose specific modifications to the criteria. Bidders shall submit such requests to the Contracting Agency no later than five (5) business days prior to the bid submittal deadline and address the request to the Project Engineer or such other person designated by the Contracting Agency in the Bid Documents.

For criteria with check boxes, the bidder will check either "Yes" or "No." For each "Yes" answer on the form, the bidder shall provide a signed and dated statement providing the project information requested and explaining the extenuating circumstances.

"Successfully Completed" means similar projects completed by the bidder within the allowed time and price and demonstrating strong construction management skills and technical competence.

Project Name: SCTP UV System Replacement	
Part A. General Company Information	
Company Name:	
Address:	
Contact Phone:	Contact E-mail:
Years in business as a Prime Contractor:	Years in business as a subcontractor:
Years in business under Present Name:	
List any former company names under which the company, its owners, and/or its principals has operated in the past five (5) years.	
Explain reason for name change(s) in the past five (5 years)	
Part B. Delinquent State Taxes	
Is the bidder delinquent or overdue on paying taxes to the State of Washington Department of Revenue or on assessments of other state agencies?	
Yes ☐ No ☐	
If "Yes" attach a copy of the written payment plan approved by the Department of Revenue.	
Part C. Federal Debarment	
Is the bidder listed as a current debarred or suspended bidder on the Federal "System For Award Management" website www.sam.gov .	
Yes ☐ No ☐	
Part D. Subcontractor Responsibility	
Does the bidder's standard subcontract form include the subcontractor language required by RCW 39.06.020? Does the bidder have an established procedure which it uses to validate the responsibility of each of its subcontractors? Does the subcontract form require that each of the bidder's subcontractors have and document a similar procedure for sub-tier subcontractors?	
Yes ☐ No ☐	
If "Yes" or "No", provide a copy of its standard subcontract form and a copy of the procedures used to validate the responsibility of subcontractors.	
Part E. Prevailing Wages	
In the last five (5) years, has the bidder had prevailing wage complaints filed against it or received violations as determined by the applicable state or federal government agency monitoring prevailing and/or Davis Bacon wage compliance?	
Yes ☐ No ☐	
If "Yes," attach a separate signed/dated statement listing the prevailing wage violations, along with an explanation of each violation and how it was resolved. The District shall evaluate these explanations and the resolution of each violation to determine whether the violations demonstrate a pattern of failure to pay prevailing wages to workers unless there are extenuating circumstances acceptable to the District.	

Part F. Claims Against Retainage and Bonds
Does the bidder have a record of multiple claims filed against the retainage or payment bonds for public works projects during the previous three (3) years?
Yes ☐ No ☐
If "Yes", attach a separate signed / dated statement for each project with claims which includes the following: 1) Owner and contact information for the owner; 2) a list of claims filed against the retainage and/or payment bond for the project; and 3) a written explanation of the circumstances surrounding the claim and the ultimate resolution of the claim. The District may contact previous owners to validate the information provided by the bidder. The District shall evaluate the information to determine if it demonstrates a lack of effective management by the bidder of making timely and appropriate payments, unless there are extenuating circumstances acceptable to the District in its sole discretion.
Part G. Public Bidding Crime
Has the bidder been convicted of a crime involving bidding on a public works contract within the last five (5) years?
Yes ☐ No ☐
Part H. Termination for Cause/Termination for Default
Has the bidder had any public works contract terminated for cause by any government agency during the previous five (5) years?
Yes ☐ No ☐
If "Yes", attach a separate signed / dated statement listing each contract terminated, the government agency terminating the contract and the circumstances involving the termination for cause. The District will evaluate the information to determine if the termination for cause indicates a lack of bidder's capacity to properly manage and execute its work and contract obligations.
Part I. Lawsuits
Has the bidder been involved in lawsuits (or arbitrations for those instances where arbitration is completed in lieu of a lawsuit) with judgments entered against the bidder for failure to meet terms on contracts in the previous five (5) years?
Yes ☐ No ☐
If "Yes", attach a list of lawsuits and/or arbitrations with judgments / arbitration awards entered against the bidder along with a written explanation of the circumstances surrounding each lawsuit and/or arbitration. The District will evaluate the information to determine if the judgement indicates a lack of bidder's capacity to properly manage and execute its work and contract obligations.

Part J. Work Experience

List at least three construction projects on the attached Work Experience Form, each of which meet all of the following criteria:

A. Successfully completed within the last ten (10) years

B. Contract value exceeding \$3,000,000

C. Remodel and capacity expansion for existing wastewater treatment plants, water treatment plants, wastewater pumping stations, or water pumping stations.

D. Each of the three projects must demonstrate the following types of work were undertaken: site work, reinforced cast-in-place concrete structures, painting, process equipment installation, mechanical piping, instrumentation and control systems, and electrical construction.

E. This project experience must demonstrate the following facilities were constructed by Bidder as general contractor:

1) four reinforced cast-in-place concrete water-holding structures of comparable size, or larger, to the UV channels described herein;

2) at least three underground and above ground process mechanical equipment demolitions in an existing plant environment, and

3) at least three underground and above ground process equipment installations in a plant environment.

Part K. Mandatory Responsibility Criteria

This project is subject to the apprenticeship utilization requirements in RCW 39.04.320.

Has the bidder been found out of compliance by the Washington State Apprenticeship and Training Council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under RCW 49.04 for the one-year period immediately preceding the date of bid solicitation?

Yes ☐ No ☐

If "Yes," attach a separate signed/dated statement listing the compliance issues, along with an explanation of each issue and how it was resolved. The District shall evaluate these explanations and the resolution of each issue to determine whether the issue(s) demonstrate a pattern of failure to follow apprenticeship utilization standards unless there are extenuating circumstances acceptable to the District.

Part L. Signature

I hereby certify, warrant and declare under penalty of perjury that the information included herein is correct and complete. Failure to disclose requested information or submitting false or misleading information may result in rejection of my bid, termination of my contract, and may impact my firm's ability to bid on future projects.

Signature of Authorized Representative

Date

Printed Name of Authorized Representative

Title

Attachment to Supplemental Bidder Criteria

WORK EXPERIENCE FORM

Please complete one form per project and include the minimum number of projects (and forms) as requested. You may include any additional work experience you deem relevant in determining bidder responsibility. Please be sure to provide a thorough description of the work in order to demonstrate how your firm meets any required experience detailed in the special provisions. You may attach additional documentation if needed.

PROJECT DETAIL

Bidder's Company Name		Bidder's Contact Name & Phone Number	
Project Name		Project Contract Number	
Project Owner		Project Location	
Project Owner Contact Name & Title		Owner's Telephone Number	
Notice to Proceed Date	Final Completion Date	Awarded Contract Value	Final Contract Price
Prime Contractor Name (If Not Bidder)		Contractor Contact Name & Phone Number (If Not Bidder)	
Did this project require Apprenticeship Participation? Yes ☐ No ☐ (If No, no further apprenticeship information is required.)			
If Yes, what was the Apprenticeship Participation Percentage? _____% If Yes, What was the actual Apprenticeship Participation Percentage achieved? _____%			
If Yes, Was the apprenticeship requirement met? Yes ☐ No ☐ (If No, attach separate sheet to explain why)			
Brief Project Description			
Brief Summary of Technical Work Completed by Bidder, Including Any Relevant Details to Demonstrate Similar Experience and any Required Experience Detailed in the Specifications.			

PROPOSAL SIGNATURE PAGE

The undersigned, under penalty of perjury, hereby certifies that said person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.

The undersigned declares that before preparing their quote, they have carefully read the specifications and requirements for bidders and that their quote is made with the full knowledge of the kind, quality and quantity of services and equipment to be furnished, and their said quote is as stated on these pages. By signing this page of the quotation, the undersigned acknowledges and agrees to the terms and conditions of the forms, requirements, and qualifications included in the Contract Provisions and furthermore warrants and represents under oath and under penalty of perjury under the laws of the State of Washington that the bidder meets the mandatory and supplemental criteria stated in the Contract Provisions and that all representations by the bidder and the undersigned are true and correct.

The undersigned hereby agrees to pay labor not less than the prevailing rates of wages, according to the requirements of the Contract Provisions for this project.

The bidder shall insert the number and date of each Addendum received.

No. _____ Date: _____ No. _____ Date: _____ No. _____ Date: _____

No. _____ Date: _____ No. _____ Date: _____ No. _____ Date: _____

Note: Failure to acknowledge receipt of Addenda will render the bid non-responsive and therefore to be rejected.

Authorized Official (Signature)

Date

Print Name of Authorized Official

Title of Authorized Official

Company Name

Telephone Number

Address

City, State, Zip

Email Address

Employment Security Reference Number

WA State Contractors License Number

WA State Unified Business Identifier (UBI#)

NOTES:

1. If the bidder is a co-partnership, so state, giving firm name under which business is transacted.
2. If the bidder is a corporation/LLC, this proposal must be executed by its duly authorized officials.
3. Proposals submitted must be complete and include pricing for the work to be completed, in whole, per the attached plans and specifications.
4. The District reserves the right to adjust the scope of this work to match available funds.
5. No bidder may withdraw its bid after the hour set for the opening thereof, unless the award of contract is delayed for a period exceeding forty-five (45) days. If it is determined to be in the best interest of the District, the District reserves the right to request an extension of bid prices during the review process.

**Clark Regional Wastewater District
DBE Compliance Checklist**

Name of Prime Contractor:

Project Name:

Project Number:

Check Procurement Type: (Check applicable box)

☐

Services – Engineering

☐

Services – Legal

☐

Supplies/Materials

☐

Construction Contractor (Prime)

☐

Construction Contractor (Subcontract)

☐

Equipment

In order to be in compliance with federal procurement requirements, funding recipients and contractors are obligated to make reasonable efforts, otherwise known as “the 6 good faith efforts,” to solicit Minority-Owned Business Enterprises (MBE) and Women-Owned Business Enterprises (WBE), collectively known as Disadvantaged Business Enterprises (DBEs) in their procurement methods. This checklist only applies to DBE efforts.

The goal of this good faith effort is to increase contracting opportunities for DBE firms. It is not sufficient to just have a competitive bidding process that is open to DBE firms. Funding recipients and contractors must seek out qualified DBE firms.

Funding Recipient responsibility – Recipients are required to include provisions in their bid documents and take affirmative steps to solicit DBE firm participation in procuring services, supplies, equipment, and in awarding a construction contract.

Prime Contractor responsibility – The successful prime contractor must also seek DBE firm participation when obtaining subcontracts for construction work **prior to bid submittal**. (See the first check box below for more information).

Demonstration of good faith efforts must be documented. This checklist is designed to facilitate and document compliance with “good faith efforts” and **must be** submitted to the District **prior to contract award**.

Please check boxes where activities are completed and provide documentation; explain unchecked boxes in comments below and use additional pages if necessary:

☐

I reviewed the bid documents (For Prime Contractors). I plan to perform 100% of the work. I do not plan on using sub-contractors on this project. (If this box is checked, you do not have to make a good faith effort for the procurement of subcontractors. If circumstances change after contract award and the prime contractor needs to hire a subcontractor for any reason, then the prime contractor must make a good faith effort to solicit DBE firms.)

OR

☐

Certified Affidavit of Publication of Newspaper advertisement soliciting DBE participation. (Suggested advertisement language: Minority-Owned Businesses (MBEs) and Women-Owned Businesses (WBEs) are encouraged to respond.)

☐

Your advertisements from publications that target DBE firms. (Only consider when it is believed that this advertisement may increase DBE participation.)

- ☐ Obtain current lists of DBE firms. (Documentation must be on file and available for examination.)
- ☐ List sources used to identify DBE firms, such as the Washington State Office of Minority and Women's Business Enterprise:
- ☐ Identify potential DBE firms for direct solicitation. Provide a printout directly from the website that you used to identify these firms. This should contain certification numbers for the firms, expiration dates (if applicable), and a brief description of the work that the firm can perform (e.g. – commodity codes, NIGP, NAICS, etc.).
- ☐ Directly solicit a minimum of 3-4 DBE firms. Provide list of DBE firms solicited and solicitation letters sent to all DBE firms. (Solicit those DBE firms that you would reasonably expect to respond and submit a quote. If you are unable to locate and solicit the minimum number, provide an explanation.)
- ☐ Description of contacts (i.e. emails, faxes, telephone calls) and dates of contacts with MBE/WBE firms.
- ☐ Perform and submit analysis to identify portions of work that can be divided and performed by qualified DBE firms. (Reduced contract size/quantities when economically feasible to permit maximum participation of DBE firms.)

Successful bidders/offerors should take reasonable affirmative steps to subcontract with MBE and WBE firms whenever additional subcontracting opportunities arise during the performance of the contract.

Comments:

Recipient/Contractor's Signature

Date

**BIDDER COMPLIANCE STATEMENT/CERTIFICATION
REGARDING EQUAL EMPLOYMENT OPPORTUNITY**

Applicability: Bid exceeding ten thousand dollars for construction contract/subcontract of unlimited amount and non-construction contract/subcontract of less than one million dollars.

This statement relates to a proposed contract between and
(Public Body) (Contractor)
or (subcontract) between and
(Contractor) (Sub-contractor)

to be funded under a federally assisted project. Pursuant to Executive Order 11246 and its implementing regulations at 41 CFR 60-1.7 (b) (1), as the undersigned bidder; I certify that:

- 1) Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. ☐ Yes ☐ No
- 2) Bidder has developed and has on file at each establishment affirmative action programs pursuant to 41 CFR 60-2 (applies only to non-construction contractor). ☐ Yes ☐ No
- 3) Bidder has filed with the Joint Reporting Committee, the Director (Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor), and agency, or the Equal Employment Opportunity Commission, all reports due under the applicable filing requirements.
☐ Yes ☐ No

I understand that if I have failed to file any compliance reports which have been required of me, or have failed to develop and have on file at each establishment affirmative action programs pursuant to 41 CFR 60-2, when required, I am not eligible to have my bid or proposal considered, or to enter into the proposed contract.

I further understand that if awarded the proposed contract, and the contract for the FIRST time brings me under the filing requirements or the written affirmative action programs that I will, as applicable: (a) within 30 days file with the Public Body Standard Form 100 (EEO-1); and (b) within 120 days from the commencement of the contract develop and submit to the Director of OFCCP for approval a Written Affirmative Action Plan.

NAME AND ADDRESS OF BIDDER (Include ZIP Code):

NAME AND TITLE OF SIGNER (Please Type):

SIGNATURE:

DATE:

BUILD AMERICA, BUY AMERICA (BABA) INITIAL CERTIFICATION STATEMENT

Upon execution of this certification, the selected Contractor, Subcontractor, Materials Supplier, or Service Provider hereby certifies that all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States or appropriate waiver(s) has been approved by the U.S. Environmental Protection Agency.

This statement relates to a proposed contract between _____
(contractor)

and _____ or between
(owner)

_____ and _____
(subcontractor) (contractor)

in conjunction with _____
(project name)

to be funded with monies from a federal assistance agreement.

Signature Date

Name and Title of Signer (Please type)

NON-SEGREGATED FACILITIES CERTIFICATION

This form must be signed by the prime contractor and submitted by the time of submission of bid.

Concurrent with executing all subcontracts, the prime contractor must obtain a signed copy of this form from each subcontractor, and retain them in the prime contractor's contract file.

Applicable to federally-funded construction contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity clause. The federally-assisted construction contractor certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform services at any location, under the contractor's control, where segregated facilities are maintained.

The federally-assisted construction contractor certifies further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit employees to perform services at any location, under the contractor's control, where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The federally-assisted construction contractor agrees that (except where they have obtained identical certifications from proposed contractors for specific time periods) they will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that they will retain a copy of such certification.

Authorized Official Signature _____ Date: _____ (please type)

Authorized Official Name and Title (please type)

Company Name

BYRD ANTI-LOBBYING AMENDMENT, 31 U.S.C. SECTION 1352 (AS AMENDED)

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not been used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. section 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

Appendix A, 44 C.F.R. Part 18 – Certification Regarding Lobbying

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned [Contractor] certifies, to the best of his or her knowledge, that:

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with the instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by 31, U.S.C. section 1352 (as amended by the Lobbying Disclosure Act of 1995). Any who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. section 3801 et seq., apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Date

Name and Title of Contractor's Authorized Official

PREVAILING WAGE RATES

PREVAILING WAGE RATES

The State of Washington prevailing wage rates applicable for this public works project, which is located in Clark County, may be found at the following website address of the Department of Labor and Industries:

<https://www.lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/>

Based on the bid submittal deadlines for this project, the applicable effective date for prevailing wages for this project is April 23, 2026.

By accepting this contract, the contractor acknowledges and agrees to the terms provided in the Davis-Bacon and Related Acts (DBRA) Requirements for Contractors and Subcontractors Under EPA Grants. (public document available at <https://www.epa.gov/grants/contract-provisions-davis-bacon-and-related-acts>)

Davis-Bacon Act requirements. This project is subject to the Davis-Bacon Act and its related acts. Bidders are responsible for ensuring that all construction, alteration, or repair work on this project, or any subcontracts, complies with all applicable provisions. Reference System for Award Management (SAM) website or to the included wage determinations.

The Davis Bacon wage determinations for this project are included on the following pages.

This project is also subject to Washington State Prevailing Wage requirements. When a public works project is subject to both the state and federal prevailing wage rate laws, contractors and subcontractors must pay the higher of either the state or federal prevailing wage rates for the type of work being performed.

If you would like a copy of the applicable prevailing wages rates, please contact Michaela Loveridge at (360) 360-5382 or by e-mail at mloveridge@crwwd.com.

DAVIS-BACON PAYROLL CERTIFICATION, FORM WH-347

The fillable US Department of Labor form WH-347 may be found online. A copy is also provided on the next two pages. Instructions for filling out this form is also provided in this section. Refer to the U.S. Department of Labor's webpage for additional information: <https://www.dol.gov/agencies/whd/forms/wh347>

"General Decision Number: WA20260137 01/02/2026

Superseded General Decision Number: WA20250137

State: Washington

Construction Type: Heavy

Counties: Clark and Skamania Counties in Washington.

HEAVY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/02/2026

ELEC0077-002 02/01/2024

	Rates	Fringes
Line Construction:		
LINE PERSON.....	\$ 64.17	23.58+1.5%

ELEC0077-003 02/01/2023

	Rates	Fringes
TREE TRIMMER: Ground Person.....	\$ 22.60	16.37
TREE TRIMMER.....	\$ 42.57	17.97

ELEC0077-006 02/01/2023

	Rates	Fringes
Line Construction:		
GROUND PERSON.....	\$ 37.53	17.74

ELEC0112-010 06/01/2025

	Rates	Fringes
ELECTRICIAN.....	\$ 60.00	27.78

ENGI0701-045 01/01/2025

	Rates	Fringes

OPERATOR:

Backhoe/Excavator/Trackhoe
Backhoe, Robotic, track
and wheel type up to and

including twenty thousand
(20,000) lbs. with any
attachments; Excavator
Operator over twenty
thousand (20,000) lbs.
through eighty-five
thousand (85,000) lbs.....\$ 52.55 17.15

ENGI0701-046 01/01/2025

	Rates	Fringes
OPERATOR: Concrete Pump.....	\$ 51.31	17.15

ENGI0701-047 01/01/2025

	Rates	Fringes
OPERATOR: Loader Loader Operator, front end and overhead, twenty-five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.....	\$ 52.55	17.15
Loaders, rubber-tired type, less than twenty- five thousand (25,000) lbs..	\$ 51.31	17.15

ENGI0701-048 01/01/2025

	Rates	Fringes
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 52.55	17.15

ENGI0701-049 01/01/2025

	Rates	Fringes
OPERATOR: Roller.....	\$ 51.31	17.15

ENGI0701-051 01/01/2025

	Rates	Fringes
OPERATOR: Crane Under fifty (50) tons.....	\$ 52.55	17.15

ENGI0701-054 01/01/2025

	Rates	Fringes
OPERATOR: Bulldozer (Over 70,000 lbs. up to and including 120,000 lbs.).....	\$ 55.88	17.15
OPERATOR: Drill		
Directional Drill less than 20,000 lbs.....	\$ 51.31	17.15
Directional Drill Locator...	\$ 48.09	17.15
Drilling Machine; Directional Drill Ove 20,000 lbs.....	\$ 52.55	17.15
OPERATOR: Mechanic.....	\$ 52.55	17.15
OPERATOR: Oiler		
Drill Oilers: auger type; truck or crane mount; Truck Crane Oiler/Driver: under 100 tons.....	\$ 48.09	17.15
Truck Crane Oiler/Driver: 100 tons and over.....	\$ 51.31	17.15
OPERATOR: Scraper (Self-propelled under 45 yards).....	\$ 52.55	17.15

LAB00242-010 06/01/2025

	Rates	Fringes
LABORER: Nozzle Person.....	\$ 52.31	17.01

LAB00335-004 06/01/2025

	Rates	Fringes
LABORER: Common or General.....	\$ 44.06	15.60

LAB00348-010 06/01/2025

	Rates	Fringes
LABORER: Pipelayer.....	\$ 37.80	16.90

PAIN0300-002 07/01/2025

	Rates	Fringes
PAINTER.....	\$ 41.24	14.70

TEAM0313-001 06/01/2025

	Rates	Fringes
TRUCK DRIVER: Asphalt Mix.....	\$ 55.43	27.52

SUWA2018-037 03/01/2024

	Rates	Fringes
CARPENTER.....	\$ 32.00	15.30
CEMENT MASON/CONCRETE FINISHER...	\$ 39.33	0.00
GRADE CHECKER.....	\$ 35.58	0.00
IRONWORKER.....	\$ 43.29	25.63
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 37.63	11.25
LABORER: Concrete Saw Chain.....	\$ 37.30	4.30
LABORER: Hod Carrier.....	\$ 35.06	10.94
LABORER: Mason Tender - Cement/Concrete.....	\$ 38.46	0.00
LABORER: Fence Erector.....	\$ 30.21	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 43.60	0.00
OPERATOR: Forklift.....	\$ 45.93	19.20
OPERATOR: Grader/Blade.....	\$ 40.28	16.17
TRAFFIC CONTROL: Flagger.....	\$ 27.75	11.15
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.....	\$ 30.61	10.89
TRUCK DRIVER: Dump Truck.....	\$ 34.09	15.63
TRUCK DRIVER: Water Truck.....	\$ 31.62	16.84

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical

order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007

6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

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Instructions For Completing Payroll Form, WH-347

OMB Control No. 1235-0008, Expires 09/30/2026.

General: Form WH-347 has been made available for the convenience of contractors and sub-contractors required by their Federal or Federally-aided construction-type contracts and sub-contracts to submit weekly payrolls. Properly filled out, this form will satisfy the requirements of Regulations, Parts 3 and 5 (29 C.F.R., Subtitle A), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related Acts.

While completion of Form WH-347 is optional, it is mandatory for covered contractors and sub-contractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Under the Davis-Bacon and related Acts, the contractor is required to pay not less than prevailing wage, including fringe benefits, as predetermined by the Department of Labor. The contractor's obligation to pay fringe benefits may be met either by payment of the fringe benefits to bona fide benefit plans, funds or programs or by making payments to the covered workers (laborers and mechanics) as cash in lieu of fringe benefits.

This payroll provides for the contractor to show on the face of the payroll all monies to each worker, whether as basic rates or as cash in lieu of fringe benefits, and provides for the contractor's representation in the statement of compliance on the payroll (as shown on page 2) that he/she is paying for fringe benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.

Address: Fill in your firm's address.

Payroll No.: Beginning with the number "1", list the payroll number for the submission.

For Week Ending: List the workweek ending date.

Project and Location: Self-explanatory.

Project or Contract No.: Self-explanatory.

Column 1 - Name and Individual Identifying Number of Worker: Enter each worker's full name and an individual identifying number (e.g., last four digits of worker's social security number) on each weekly payroll submitted.

Column 2 - No. of Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement of Regulations, Part 3 and 5.

Column 3 - Work Classifications: List classification descriptive of work actually performed by each laborer or mechanic. Consult classification and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. An individual may be shown as having worked in more than one classification provided an accurate breakdown of hours worked in each classification is maintained and shown on the submitted payroll by use of separate entries.

Column 4 - Hours worked: List the day and date and straight time and overtime hours worked in the applicable boxes. On all contracts subject to the Contract Work Hours Standard Act, enter hours worked in excess of 40 hours a week as "overtime".

Column 5 - Total: Self-explanatory

Column 6 - Rate of Pay (Including Fringe Benefits): In the "straight time" box for each worker, list the actual hourly rate paid for straight time worked, plus cash paid in lieu of fringe benefits paid. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate. For example, "\$12.25/.40" would reflect a \$12.25 base hourly rate plus \$0.40 for fringe benefits. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. When overtime is worked, show the overtime hourly rate paid plus any cash in lieu of fringe benefits paid in the "overtime" box for each worker; otherwise, you may skip this box. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standard Act of 1962 if the prime contract exceeds \$100,000. In addition to paying no less than the predetermined rate for the classification which an individual works, the contractor must pay amounts predetermined as fringe benefits in the wage decision made part of the contract to approved fringe benefit plans, funds or programs or shall pay as cash in lieu of fringe benefits. See "FRINGE BENEFITS" below.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of a worker's weekly wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the Federal or Federally assisted project and then the gross amount earned during the week on all projects, thus "\$163.00/\$420.00" would reflect the earnings of a worker who earned \$163.00 on a Federally assisted construction project during a week in which \$420.00 was earned on all work.

Column 8 - Deductions: Five columns are provided for showing deductions made. If more than five deduction are involved, use the first four columns and show the balance deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deduction(s) contained in the "Other" column. All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 C.F.R., Part 3. If an individual worked on other jobs in addition to this project, show actual deductions from his/her weekly gross wage, and indicate that deductions are based on his gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Totals - Space has been left at the bottom of the columns so that totals may be shown if the contractor so desires.

Statement Required by Regulations, Parts 3 and 5: While the "statement of compliance" need not be notarized, the statement (on page 2 of the payroll form) is subject to the penalties provided by 18 U.S.C. § 1001, namely, a fine, possible imprisonment of not more than 5 years, or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

Items 1 and 2: Space has been provided between items (1) and (2) of the statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "**See** Deductions column in this payroll." **See** "FRINGE BENEFITS" below for instructions concerning filling out paragraph 4 of the statement.

Item 4 FRINGE BENEFITS - Contractors who pay all required fringe benefits: If paying all fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor, show the basic cash hourly rate and overtime rate paid to each worker on the face of the payroll and check paragraph 4(a) of the statement on page 2 of the WH-347 payroll form to indicate the payment. Note any exceptions in section 4(c).

Contractors who pay no fringe benefits: If not paying all fringe benefits to approved plans, funds, or programs in amounts of at least those that were determined in the applicable wage decision of the Secretary of Labor, pay any remaining fringe benefit amount to each laborer and mechanic and insert in the "straight time" of the "Rate of Pay" column of the payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits

determined for each classification in the application wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, check paragraph 4(b) of the statement on page 2 the payroll form to indicate the payment of fringe benefits in cash directly to the workers. Note any exceptions in section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the covered worker as cash in lieu of fringe benefits. Enter any exceptions to section 4(a) or 4(b) in section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid each worker as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor must pay an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in section 4(c) to each such individual for all hours worked (unless otherwise provided by applicable wage determination) on the Federal or Federally assisted project. Enter the rate paid and amount of cash paid in lieu of fringe benefits per hour in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Public Burden Statement: We estimate that it will take an average of 55 minutes to complete this collection of information, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

Note: In order to view, fill out, and print PDF forms, you need Adobe® Acrobat® Reader® version 5 or later, which you may download for free

at www.adobe.com/products/acrobat/readstep2.html.

Wage and Hour Division

An agency within the U.S. Department of Labor
200 Constitution Ave NW
Washington, DC 20210

[1-866-4-US-WAGE](tel:1-866-4-US-WAGE)

[1-866-487-9243](tel:1-866-487-9243)

www.dol.gov

U.S. Department of Labor

Wage and Hour Division

Davis-Bacon and Related Acts Weekly Certified Payroll Form

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Unless otherwise noted, the information requested is specific to the named project below.

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.



Rev. January 2025
OMB No.: 1235-0008
Expires: 01/31/2028

☐ SUBMISSION OF FINAL DBRA CERTIFIED PAYROLL FORM

☐ PRIME CONTRACTOR

☐ SUBCONTRACTOR

PROJECT NAME				PROJECT NO. or CONTRACT NO.			CERTIFIED PAYROLL NO.			PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME															
PROJECT LOCATION				WAGE DETERMINATION NO.			WEEK ENDING DATE			PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS ADDRESS															
(1A)	(1B)	(1C)	(1D)	(1E)	(2)	(3)	(4)				(5)	(6A)	(6B)	(6C)	(7A)	(7B)	(8)			(9)					
WORKER ENTRY NO.	WORKER LAST NAME	WORKER FIRST NAME	WORKER MIDDLE INITIAL	WORKER IDENTIFYING NO.	(J) JOURNEYWORKER (RA) REGISTERED APPRENTICE	LABOR CLASSIFICATION	ST = STRAIGHT TIME OT = OVERTIME	(TOP) DAYS OF WORK WEEK (BOTTOM) DATES							TOTAL HOURS WORKED FOR WEEK	HOURLY WAGE RATE PAID FOR ST AND OT	TOTAL FRINGE BENEFIT CREDIT	PAYMENT IN LIEU OF FRINGE BENEFITS	GROSS AMT EARNED	GROSS AMT EARNED FOR ALL WORK	DEDUCTIONS FOR ALL WORK				NET PAY TO WORKER FOR ALL WORK
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While use of Form WH-347 itself is optional, covered contractors and subcontractors performing work on Federal or federally assisted construction contracts are required by the DBRA regulations and the contract clauses to submit payroll information on a weekly basis. The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federal or federally financed construction contracts to, on a weekly basis, "furnish a statement on the wages paid each employee during the prior week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors and subcontractors to submit weekly certified payrolls to the appropriate Federal agency if the agency is a party to the contract (or, if the agency is not such a party, to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the Federal agency). Each certified payroll must be accompanied by a signed "Statement of Compliance" (e.g., page 2 of the WH-347 or another document with identical wording) indicating that the certified payrolls are accurate and complete, and that each laborer or mechanic has been paid not less than the required Davis-Bacon prevailing wage rate(s) (including any fringe benefits) for the work performed. DOL and contracting agencies receiving this information review the information to determine whether workers have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210 (over)

PROJECT NAME			PROJECT NO. or CONTRACT NO.		PAYROLL NO.		PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME																																																																																																																																																																							
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☐	The payroll information submitted with this statement is correct and complete for the above project during the above period, and the wage and fringe benefit rates paid to the workers, including credit taken for the reasonably anticipated costs of a bona fide fringe benefit plan, fund or program, are not less than the applicable wage and fringe benefits rates for the classification(s) of work actually performed, as specified in the wage determination(s) incorporated into the contract.																																																																																																																																																																													
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☐	Any workers paid as apprentices during the above period are duly registered in a bona fide apprenticeship program registered with the Office of Apprenticeship, Employment and Training Administration, United States Department of Labor ("OA"), or a State Apprenticeship Agency ("SAA") recognized by Department of Labor. I have verified the registered apprenticeship program information provided below as accurate and applicable to any apprentices identified on page 1 of this form.																																																																																																																																																																													
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HOURLY CREDIT FOR FRINGE BENEFITS <i>If an amount is listed in (6B) on the first page of this certified payroll form, enter the hourly credit claimed under each plan name, type and number for each worker and check whether the plan is funded or unfunded.</i> <table border="1"> <thead> <tr> <th rowspan="4">NAME OF WORKER</th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th rowspan="4">TOTAL HOURLY CREDIT</th> </tr> <tr> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> </tr> <tr> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> </tr> <tr> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>													NAME OF WORKER	FB NAME		FB NAME		FB NAME		FB NAME		FB NAME		FB NAME		TOTAL HOURLY CREDIT	FB TYPE		FB TYPE		FB TYPE		FB TYPE		FB TYPE		FB TYPE		PLAN NO.		PLAN NO.		PLAN NO.		PLAN NO.		PLAN NO.		PLAN NO.		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded			Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$
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THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION (SEE SECTION 1001 OF TITLE 18 AND SECTION 3729 OF TITLE 31 OF THE UNITED STATES CODE), AS WELL AS DEBARMENT FROM FUTURE FEDERAL AND FEDERALLY-ASSISTED CONTRACTS. INFORMATION REPORTED IN CERTIFIED PAYROLLS MAY BE SUBJECT TO DISCLOSURE IN RESPONSE TO A FREEDOM OF INFORMATION ACT REQUEST.																																																																																																																																																																														

CONTRACT FORMS

PUBLIC WORKS CONTRACT

THIS AGREEMENT is by and between Clark Regional Wastewater District (Owner) and

_____ (Contractor).

Owner and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:

1. WORK

1.1. Contractor shall complete the Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

1.1.1. The Project consists of the construction of all components of the Salmon Creek Treatment Plant UV System Replacement as described in the contract plans and specifications.

2. THE PROJECT

2.1. The project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

2.1.1. Salmon Creek Treatment Plant UV System Replacement.

3. ENGINEER

3.1. The Project has been designed by Jacobs Engineering Group Inc.

4. CONTRACT TIMES

4.1. Time of the Essence: Time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.2. Time to Achieve Substantial Completion and Final Payment:

4.2.1. All Work for Milestone 1 shall be substantially completed by 436 calendar days after the Owner has issued the Notice to Proceed (NTP).

4.2.2. All Work shall be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions by 60 calendar days after the Substantial Completion date.

4.3. Liquidated Damages:

4.3.1. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph Contract Times above, plus any extensions thereof allowed in accordance with Article 11 of the General Conditions. Accordingly, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner at the rate indicated below for each day that expires after the time specified herein for Substantial Completion until the Work is substantially complete. This rate has been calculated to reflect the cost to the Owner for additional consultant and agency staff time involved in managing the project, the investment in infrastructure without the ability to utilize the new facilities, and other impacts associated with the work not being completed on time.

4.3.2. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner at the rate indicated below for each day that expires after the time specified herein for completion and readiness for final payment until the Work is completed and ready for final payment. This rate has been calculated to reflect the cost to the Owner for additional consultant and agency staff time involved in managing the project to final completion, and other impacts including loss of use and inconvenience to the public associated with the work not being completed on time.

4.3.3. Liquidated Damages Rates:

Substantial Completion of Milestone 1: \$1,500.

Milestone 2 Final Completion and Ready for Final Payment: \$750.

5. CONTRACT PRICE

5.1. Owner will pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to the following (price shall include sales tax and shall match the proposal form):

5.1.1. For all work, a lump sum of:

_____ Dollars
(Words)
and _____ Cents \$ _____
(Words) (Figures)

6. PAYMENT PROCEDURES

6.1. Submittal and Processing of Payments: Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.2. Progress Payments and Retainage: Owner will make progress payments on account of the Contract Price on the basis of Contractor's Application for Payment on the date of each month as established in the preconstruction conference during performance of the Work as provided herein. All such payments will be measured by the Schedule of Values established as provided in Paragraph 2.05 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided in the General Requirements. All Progress Payments are subject to retainage as required by RCW 60.28.

6.2.1. Prior to Final Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 15.01 of the General Conditions;

6.2.1.1. Ninety-five percent of Work completed, and 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage subject to the provisions of RCW 60.28).

6.3. Final Payment:

6.3.1. Upon final completion and acceptance of the work in accordance with Paragraph 15.06 of the General Conditions and RCW 60.28, Owner will pay the remainder of the Contract Price as recommended by Engineer as provided in Paragraph 15.06.

7. CONTRACTOR'S REPRESENTATIONS

7.1. In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

- 7.1.1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- 7.1.2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- 7.1.3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- 7.1.4. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on 1) the cost, progress, and performance of the Work; 2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and 3) Contractor's safety precautions and programs.
- 7.1.5. Based on the information and observations referred to above, Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- 7.1.6. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- 7.1.7. Contractor has given Engineer written notice of conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- 7.1.8. The Contract Documents are generally sufficient to indicate and convey understanding of terms and conditions for performance and furnishing of the Work.

8. CONTRACT DOCUMENTS

8.1. Contents:

- 8.1.1. The Contract Documents that form the Contract between the Owner and the Contractor are as follows:
 - 8.1.1.1. This Agreement.
 - 8.1.1.2. Payment and Performance bond.
 - 8.1.1.3. General Conditions, Engineers Joint Contract Documents Committee.
 - 8.1.1.4. Supplementary Conditions.
 - 8.1.1.5. Specifications as listed in the Table of Contents of the Project Manual.
 - 8.1.1.6. Drawings consisting of 71 sheets with each sheet bearing the following general title: "Salmon Creek Treatment Plant UV System Replacement."
 - 8.1.1.7. Phase 5B Project – Salmon Creek Treatment Plant Improvements Geotechnical Data Report, dated August 2019.
 - 8.1.1.8. Addenda.
 - 8.1.1.9. All documents contained in the Project Manual.

- 8.1.2. Exhibits to this Agreement (enumerated as follows):
 - 8.1.2.1. Contractor's Bid.
 - 8.1.2.2. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - 8.1.2.3. Notice to Proceed.
 - 8.1.2.4. Work Change Directives.
 - 8.1.2.5. Change Order(s).
- 8.2. There are no Contract Documents other than those listed above in this Article.
- 8.3. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 11.01 of the General Conditions.
- 9. APPRENTICESHIP UTILIZATION REQUIREMENTS
 - 9.1. The apprentice labor hours required for this project are 15% of the total labor hours, unless Good Faith Efforts are accepted. The undersigned agrees to utilize this level of apprentice participation. Apprentice utilization will be determined using the Department of Labor and Industries (L&I) online Prevailing Wage Intent & Affidavit (PWIA) system. A monetary incentive of \$10,000 will be paid to the contractor meeting the apprentice utilization requirement, without a reduction by Good Faith Efforts. A monetary penalty will be applied to the contractor failing to meet the utilization requirement, unless a Good Faith Effort is approved by the District. The penalty will be assessed for every hour of shortfall of the minimum number of required apprentice hours using the applicable published wage of a Step 1 apprentice laborer. The penalty will not exceed one percent (1%) of the total Contract Sum.
- 10. MISCELLANEOUS
 - 10.1. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.
 - 10.2. Successors and Assigns: Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
 - 10.3. Severability: Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
 - 10.4. Assignment of Contract:
 - 10.4.1. Except as specifically provided herein, the parties to this Agreement may not assign any of their rights or obligations hereunder to any non-party without the written consent of all parties to this Agreement. Owner and Contractor specifically agree that Owner may assign any and all title, rights, warranties, rights of action, and obligations related to the Work, this Agreement, and the Contract Documents in whole or in part to the Discovery Clean Water Alliance, a Washington municipal corporation. Owner will give Contractor written notice of any such assignment. Failure to provide notice will not affect the validity of the assignment.

10.5. Contractor's Certifications:

10.5.1. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this paragraph:

10.5.1.1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in Contract execution;

10.5.1.2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract Price at artificial noncompetitive levels, or (c) to deprive Owner of the benefits of free and open competition;

10.5.1.3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, noncompetitive levels; and

10.5.1.4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

11. Federal Funding Requirement

11.1. The Contractor acknowledges to and for the benefit of the **Clark Regional Wastewater District** ("Owner") and the **United States Environmental Protection Agency (USEPA)** (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America," that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on _____, 2026 (which is the Effective Date of the Agreement)

OWNER: Clark Regional Wastewater
District

CONTRACTOR: _____

By: John M. Peterson

By: _____

Title: General Manager

Title: _____

Address for giving notices:

Address for giving notices:

8000 NE 52nd Court

Vancouver, WA 98665

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

License No. _____
(Where applicable)

Agent for service or process: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

CONTRACT PAYMENT AND PERFORMANCE BOND

Clark Regional Wastewater District (the "District") has awarded to _____ ("Principal"), a contract for the construction of the project designated as **Salmon Creek Treatment Plant UV System Replacement, Project No. 93-2023-0048**, and said Principal is required under the terms of that Contract to furnish a bond for payment of subcontractors and suppliers and performance of all obligations and duties under the Contract.

The Principal, and _____ ("Surety"), a corporation, organized under the laws of the State of _____, duly authorized to do business in the State of Washington as surety upon bonds of contractors with municipal corporations, and their heirs, executors, administrators, successors and assigns, are jointly and severally held and firmly bound to the District, in the sum of _____ US Dollars (\$_____) Total Contract Amount, for the payment of this sum on demand subject to the provisions herein.

This statutory bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns perform all the duties, warranties, and obligations of the Contract and fulfill all the terms and conditions of all duly authorized modifications, additions, and changes to said Contract that may hereafter be made, at the time and in the manner therein specified, and shall also pay all laborers, mechanics, subcontractors, material men, and all persons and governmental agencies as required by RCW 39.08 and shall defend, indemnify and hold harmless the District, its officers and agents from any claim for such payment.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, except as provided herein, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract, the specifications or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract including any increase the total amount to be paid the Principal shall automatically increase the obligations of the Surety on this bond and notice to Surety is not required and is waived for such increased obligation.

This bond may be executed in two (2) original counterparts to be signed by duly authorized officers of Principal and Surety. This bond will only be accepted if it is accompanied by a fully executed and original (or acceptable equivalent) power of attorney for the officer executing on behalf of the Surety.

PRINCIPAL

SURETY

Principal Signature Date

Surety Signature Date

Printed Name

Printed Name

Title

Title

Name, address, and telephone of local office/agent of Surety Company is:

CONDITIONS OF THE CONTRACT

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Shop Drawing or Sample submittal;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.08;
 - 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 Delegation of Professional Design Services

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

- B. *Change Proposal Procedures*

- 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
- 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
 - 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
 - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 6. Expenses incurred in preparing and advancing Claims.
 - 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee*
 - 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
 - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof. The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix “SC” added thereto.

SC-1.01. Renumber Paragraph 1.01.A.3 to Paragraph 1.01.A.3.a and add the following new paragraph:

1.01.A.3.b. *Architect*—Entity identified in the Agreement. Synonymous with and having the same meaning as Engineer.

SC-1.01. Renumber Paragraph 1.01.A.11 to Paragraph 1.01.A.11.a and add the following new paragraph:

1.01.A.11.b. *Construction Manager*—The authorized representative of Owner who is assigned to the Site or any part thereof. Synonymous with and having same meaning as Resident Project Representative.

SC-1.01. Renumber Paragraph 1.01.A.17 to Paragraph 1.01.A.17.a and add the following new paragraph:

1.01.A.17.b. *District*—Clark Regional Wastewater District. Synonymous with and having the same meaning as Owner. The contract operator of the Salmon Creek Treatment Plant.

SC-1.01. Renumber Paragraph 1.01.A.23 to Paragraph 1.01.A.23.a and add the following new paragraph:

1.01.A.23.b. *Geotechnical Data Report (GDR)*—The report that collects and presents data regarding subsurface conditions at or adjacent to the Site, including Technical Data and other geotechnical data, prepared for Owner. The GDR’s content may include logs of borings, trenches, and other site investigations, recorded measurements of subsurface water levels, the results of field and laboratory testing, and descriptions of the investigative and testing programs. The GDR does not include an interpretation of the data. If opinions, or interpretive or speculative non-factual comments or statements appear in a document that is labeled a GDR, such opinions, comments, or statements are

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not operative parts of the GDR and do not have contractual standing. Subject to that exception, the GDR is a Contract Document.

SC-1.01. Add the following language at the end of Paragraph 1.01.A.25:

Tariffs are included in the definition of Laws and Regulations.

SC-1.01. Renumber Paragraph 1.01.A.32 to Paragraph 1.01.A.32.a and add the following new paragraph:

1.01.A.32.b *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

SC-1.01. Revise Paragraph 1.01.A.33 by replacing the word “Engineer” with “Owner” and adding the sentence “Synonymous with Construction Manager.” to the end of the paragraph.

SC-1.01. Renumber Paragraph 1.01.A.38 to Paragraph 1.01.A.38.a and add the following new paragraph:

1.01.A.38.b. *Specialist*—The term Specialist refers to a person, partnership, firm, or corporation of established reputation (or if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workers skilled in either (as applicable) manufacturing or fabricating items required by the Contract Documents, or otherwise performing Work required by the Contract Documents. Where the Specifications require the installation by a Specialist, that term shall also be deemed to mean either the manufacturer of the item, a person, partnership, firm, or corporation licensed by the manufacturer, or a person, partnership, firm, or corporation who will perform the Work under the manufacturer’s direct supervision.

SC-1.01. Renumber Paragraph 1.01.A.39 to Paragraph 1.01.A.39.a and add the following new paragraphs:

1.01.A.39.b. *Standard Specifications*—Wherever in these Contract Documents reference is made to the Standard Specifications, said reference shall be understood as referring to the Washington State Department of Transportation (WSDOT) 2025 Standard Specifications for Road, Bridge and Municipal Construction which applicable parts are incorporated herein and made a part of these Documents by specific reference thereto. As noted, references are also made to the 2021 Clark County Stormwater Manual. If

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requirements contained in the Standard Specifications are modified by or are in conflict with supplemental information in these Contract Documents, the requirements of these Contract Documents shall prevail.

SC-1.01. Add the following language at the end of Paragraph 1.01.A.42:

Substantial Completion is further defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide Owner the full time, uninterrupted, and continuous beneficial operation of the Work; and (ii) required training and functional, performance and acceptance, or startup testing has been successfully demonstrated for components, devices, equipment, and instrumentation and control to the satisfaction of Engineer in accordance with the requirements of the Specifications.

SC-2.01. Delete the phrase "(if the Contract requires Contractor to furnish such bonds)" from Paragraph 2.01.A.

SC-2.01. Delete Paragraph 2.01.B and Paragraph 2.01.C in their entirety and insert the following in their place:

2.01.B. Evidence of Contractor's Insurance: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies of insurance (including all endorsements, and identification of applicable self-insured retentions and deductibles) required to be provided by Contractor in Article 6. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

2.01.C. Evidence of Owner's Insurance: After receipt from Contractor of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner under Article 6 (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

SC-2.02. Amend first sentence in Paragraph 2.02.A to read as follows:

2.02.A. If requested, Owner will furnish to Contractor four copies of conformed Contract Documents and four 11-inch by 17-inch copies of Drawings and two full-size sets of Drawings, incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully executed counterpart of the Agreement) and one copy in electronic portable document format (PDF).

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SC-3.01. Add the following to the end of Paragraph 3.01.A:

Unless otherwise specifically defined in the Contract Documents, words which have well-known technical meanings or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Contract Documents are intended to be complimentary. Whatever is called for in one, is interpreted to be called for in all. However, in the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following descending order of precedence:

3.01.A.1. Permits from outside agencies;

3.01.A.2. The Agreement including exhibits, and addenda and any amendments thereto, with those of later date having precedence over those of an earlier date;

3.01.A.3. Supplementary General Conditions;

3.01.A.4. Standard General Conditions of the Construction Contract, Engineers Joint Contract Documents Committee (EJCDC) 2018;

3.01.A.5. Specifications – Division 01;

3.01.A.6. Specifications – Divisions 02 - 49;

3.01.A.7. Drawings, Figure dimensions, and dimensions that can be computed on plans shall take precedence over scale dimensions. The Drawings with the higher level of detail take precedence over less detailed Drawings;

3.01.A.8. Design Details;

3.01.A.9. Change Orders, Work Change Directives, Field Orders, Engineer's written interpretation and clarifications and Notice to Proceed, in precedence listed, will take precedence over all other Contract Document components referenced herein;

3.01.A.10. References to standard specifications, manuals, codes of any technical society, organization or association, to the laws or regulation of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, laws or regulations in effect in the jurisdiction where the Project Site is located on the first published date of the Solicitation Document, except as may be otherwise specifically stated.

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SC-3.01. Add the following new paragraph immediately after Paragraph 3.01.G:

3.01.H. Sections of Division 01, General Requirements, govern the execution of the Work of all sections of the Specifications.

SC-4.01. Delete the third sentence of Paragraph 4.01.A in its entirety.

SC-4.03. Add the following new paragraphs immediately after Paragraph 4.03.A:

4.03.B. In accordance with Washington Administrative Code 332-120-030, Contractor shall search records and physical area of Site, including road or street resurfacing projects, for the purpose of locating and referencing any known or existing survey monuments.

4.03.C. In accordance with Washington Administration Code WAC 332-120-030, no survey monument shall be removed or destroyed before a permit is obtained from Washington's Department of Natural Resources.

4.03.D. After completion of the activity that caused the removal or destruction of the monument, if applicable, Contractor shall conduct remonumentation activities and file survey monumentation records in accordance with Washington Administrative Code 332-120-060.

SC-4.05. Add the following new paragraph immediately after Paragraph 4.05.G:

4.05.H. Failure by the Contractor to timely submit a Change Proposal in accord with this Article shall be deemed a complete waiver of any and all adjustments to Contract Times, Contract Price, and any other equitable or legal remedy related to any delays described in this Article. As a condition precedent to any right to submit a Claim under Article 12, Contractor shall provide proof of a timely submitted Change Proposal as required by this Article.

SC-5.02. Add the following language to the end of Paragraph 5.02.A.1:

Contractor shall not enter upon nor use property not under Owner control until appropriate easements have been executed and a copy is on file at the Site.

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SC-5.03. Add the following new paragraphs immediately after Paragraph 5.03.D:

5.03.E. The following lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

5.03.E.1. Geotechnical Data Report:

5.03.E.1.a. This Contract contains a Geotechnical Data Report (“GDR”), dated August 2019 prepared by Jacobs Engineering Group Inc., 1100 N.E. Circle Boulevard, Suite 300, Corvallis, OR 97330, entitled *Phase 5B Project – Salmon Creek Treatment Plant Improvements, Geotechnical Data Report*.

5.03.E.1.b. The GDR is incorporated as a Contract Document. The GDR is to be used in conjunction with other Contract Documents, including the Drawings and Specifications.

5.03.E.1.c. The GDR includes data from prior geotechnical investigations performed on-site which are included in Appendix A of the GDR. These include the following investigations:

CH2M HILL – 1973, 1974, and 1996

Century West Engineering – 1986, 1989, and 1990

The Technical Data contained in such reports upon whose accuracy Contractor may reasonably rely are those indicated in the definition of Technical Data in the General Conditions.

SC-5.04. Revise the first sentence of Paragraph 5.04.E.4 by changing the word “may” to “must”.

SC-5.04. Add the following new paragraph immediately after Paragraph 5.04.E.4:

5.04.E.5. Failure by the Contractor to timely submit a Change Proposal in accord with this Article shall be deemed a complete waiver of any and all adjustments to Contract Times, Contract Price, and any other equitable or legal remedy related to a changed or unknown physical condition described in this Article. As a condition precedent to any right to submit a Claim under Article 12, Contractor shall provide proof of a timely submitted Change Proposal as required by this Article.

SC-5.05. Revise the first sentence of Paragraph 5.05.F.3 by changing the word “may” to “must”.

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SC-5.05. Add the following new paragraph immediately after Paragraph 5.05.F.4:

5.05.F.5. Failure by the Contractor to timely submit a Change Proposal in accord with this Article shall be deemed a complete waiver of any and all adjustments to Contract Times, Contract Price, and any other equitable or legal remedy related to an Underground Facility described in this Article. As a condition precedent to any right to submit a Claim under Article 12, Contractor shall provide proof of a timely submitted Change Proposal as required by this Article.

SC-5.06. Add the following language following Paragraph 5.06.A.3:

5.06.A.4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

Report Title	Date of Report	Technical Data
None	None	None

SC-6.01. Delete Paragraph 6.01.A in its entirety and insert the following in its place:

6.01.A. Contractor shall furnish a combined performance and payment bond in the full amount of the Agreement, as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. Obligations under the Contract Documents are agreed to include all requirements and conditions of RCW 39.04.240.

SC-6.03. Add the following new paragraphs immediately after Paragraph 6.03.C:

6.03.D. Other Additional Insureds: As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, protection and indemnity, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following:

6.03.D.1. Clark Regional Wastewater District
8000 N.E. 52nd Court, Vancouver, WA 98668-8979

6.03.D.2. Jacobs Engineering Group Inc.
2020 S.W. Fourth, Suite 300, Portland, Oregon 97201

6.03.D.3. Testing and inspection agency employed by Owner – To be named by Owner after contract award.

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6.03.D.4. Clark County, Washington
1300 Franklin Street, Vancouver, WA 98666

6.03.D.5. City of Battle Ground
109 S.W. 1st Street, Battle Ground, WA 98604

6.03.D.6. City of Ridgefield
230 Pioneer St., Ridgefield, WA 98642

6.03.D.7. Discovery Clean Water Alliance
8000 N.E. 52nd Court, Vancouver, WA 98665

6.03.E. Workers' Compensation and Employer's Liability: Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Jones Act (if applicable)	
Bodily injury by accident—each accident	\$1,000,000
Bodily injury by disease—aggregate	\$1,000,000
Employer's Liability	
Each accident	\$2,000,000
Each employee	\$2,000,000
Policy limit	\$5,000,000
Stop-gap Liability Coverage	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy.	\$5,000,000

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6.03.F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:

6.03.F.1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,

6.03.F.2. damages insured by reasonably available personal injury liability coverage, and

6.03.F.3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

6.03.G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

6.03.G.1. Products and completed operations coverage.

6.03.G.1.a. Such insurance must be maintained for 3 years after final payment.

6.03.G.1.b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and 3 years thereafter.

6.03.G.2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.

6.03.G.3. Severability of interests and no insured-versus-insured or cross-liability exclusions.

6.03.G.4. Underground, explosion, and collapse coverage.

6.03.G.5. Personal injury coverage.

6.03.G.6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.

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6.03.G.7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured”, or its equivalent.

6.03.H. *Commercial General Liability—Excluded Content*: The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

6.03.H.1. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).

6.03.H.2. Any exclusion for water intrusion or water damage.

6.03.H.3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.

6.03.H.4. Any exclusion of coverage relating to earth subsidence or movement.

6.03.H.5. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).

6.03.H.6. Any limitation or exclusion based on the nature of Contractor’s work.

6.03.H.7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

6.03.H.8. Any exclusion for non-owned watercraft.

6.03.I. *Commercial General Liability—Minimum Policy Limits*:

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$10,000,000
Products—Completed Operations Aggregate	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$5,000,000

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6.03.J. *Automobile Liability*: Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$2,000,000
Property Damage	
Each Accident	\$1,000,000
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$2,000,000

6.03.K. *Umbrella or Excess Liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$10,000,000
General Aggregate	\$10,000,000

6.03.L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements*: Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of \$5,000,000 after accounting for partial attribution of its limits to underlying policies, as allowed above.

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6.03.M. *Contractor's Pollution Liability Insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than 3 years after final completion.

Contractor's Pollution Liability	Policy limits of not less than:
Each Occurrence/Claim	\$5,000,000
General Aggregate	\$10,000,000

6.03.N. *Contractor's Professional Liability Insurance:* If Contractor will provide or furnish professional services under this *Contract*, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance must be maintained throughout the duration of the Contract and for a minimum of 2 years after Substantial Completion. The retroactive date on the policy must pre-date the commencement of furnishing services on the Project.

Contractor's Professional Liability	Policy limits of not less than:
Each Claim	\$1,000,000
Annual Aggregate	\$5,000,000

6.03.P. *Unmanned Aerial Vehicle Liability Insurance:* If Contractor uses unmanned aerial vehicles (UAV—commonly *referred* to as drones) at the Site or in support of any aspect of the Work, Contractor shall obtain UAV liability insurance in the amounts stated; name Owner, Engineer, and all individuals and entities identified in the Supplementary Conditions as additional insureds; and provide a certificate to Owner confirming Contractor's compliance with this requirement. Such insurance will provide coverage for property damage, bodily injury or death, and invasion of privacy.

Unmanned Aerial Vehicle Liability Insurance	Policy limits of not less than:
Each Claim	\$500,000
General Aggregate	\$500,000

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SC-6.04. Add the following new paragraphs immediately after Paragraph 6.04.E:

6.04.F. *Builder's Risk Requirements*: The builder's risk insurance must:

6.04.F.1. be written on a builder's risk "all risk" policy form that at a minimum includes insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment stored and in transit, and must not exclude the coverage of the following risks: fire; windstorm; hail; flood; earthquake, volcanic activity, and other earth movement; lightning; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood).

6.04.F.1.a. Such policy will include an exception that results in coverage for ensuing losses from physical damage or loss with respect to any defective workmanship, methods, design, or materials exclusions.

6.04.F.1.b. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake, volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance will be provided through other insurance policies acceptable to Owner and Contractor.

6.04.F.2. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

6.04.F.3. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of contractors, engineers, and architects).

6.04.F.4. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier). If this coverage is subject to a sublimit, such sublimit will be a minimum of \$500,000.

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6.04.F.5. extend to cover damage or loss to insured property while in transit. If this coverage is subject to a sublimit, such sublimit will be a minimum of \$500,000.

6.04.F.6. allow for the waiver of the insurer's subrogation rights, as set forth in this Contract.

6.04.F.7. allow for partial occupancy or use by Owner by endorsement, and without cancellation or lapse of coverage.

6.04.F.8. include performance/hot testing and start-up, if applicable.

6.04.F.9. be maintained in effect until the Work is complete, as set forth in Paragraph 15.06.D of the General Conditions, or until written confirmation of Owner's procurement of property insurance following Substantial Completion, whichever occurs first.

6.04.F.10. include as named insureds the Owner, Contractor, Subcontractors (of every tier), and any other individuals or entities required by this Contract to be insured under such builder's risk policy. For purposes of Paragraphs 6.04, 6.05, and 6.06 of the General Conditions, and this and all other corresponding Supplementary Conditions, the parties required to be insured will be referred to collectively as "insureds."

SC-6.05. Add the following new paragraph after the end of Paragraph 6.05.D:

6.05.E. Property insurance furnished under this Contract shall have deductibles no greater than \$10,000 for direct physical loss in any one occurrence for sublimits except for earthquake, which shall have a maximum deductible of \$50,000.

SC-7.03. Delete the words "which will not be unreasonably withheld." from the end of the last sentence of Paragraph 7.03.C.

SC-7.03. Add the following language after the end of Paragraph 7.03.C:

7.03.D. Contractor (and Subcontractors) regular work hours shall be between 7:00 a.m. and 7:00 p.m., on weekdays only not including holidays observed by Clark Regional Wastewater District. Certain work outside these hours may be required if specified in the Contract Documents.

7.03.E. The Contractor shall comply with local ordinances, including Chapter 9.14 of the Clark County Code governing Public Disturbance Noises, and the additional requirements of Section 01 15 00, Mitigating Community Impacts. Normal hours of work for this project are limited from 7:00 a.m. to 7:00 p.m. Permission to work outside these hours will not normally be granted but may be considered for segments

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of the Project on a case-by-case basis upon application to Clark County and the Owner through the Resident Project Representative. Approval to work outside of the normal hours may be revoked at any time the Contractor exceeds the noise control regulations or complaints are received from the public or adjoining property owners regarding the noise or light glare from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

7.03.F. Permission to work Saturdays, Sundays, holidays, or other than the agreed upon working hours Monday through Friday may be given subject to certain other conditions set forth by the Owner. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Owner for the costs in excess of straight-time costs for Owner's employees who worked during such times, on non-Federal aid projects; considering the work performed on Saturdays, Sundays, and holidays as working days with regards to the Contract time. Assistants may include, but are not limited to, survey crews; inspectors; and other Owner employees when in the opinion of the Resident Project Representative, such work necessitates their presence.

SC-7.06. Add the following language at the end of Paragraph 7.06.D:

Reimbursement rates for Engineer or their officers, directors, members, partners, employees, agents, and other consultants and subcontractors for evaluation of proposed substitutes shall be on the basis established in Paragraph 15.01.E of these Supplementary Conditions.

SC-7.07. Add the following new paragraphs immediately after Paragraph 7.07.D:

7.07.D.1. The identity and acceptance of Subcontractors and Suppliers for the following portions of the Work is required in accordance with the requirements of the Instructions to Bidders:

7.07.D.1.a. Heating, Ventilating, and Air Conditioning (HVAC).

7.07.D.1.b. Plumbing.

7.07.D.1.c. Electrical.

7.07.D.1.d. Structural steel installation.

7.07.D.1.e. Rebar installation.

SC-7.07. Replace the phrase "On a monthly basis" from the beginning of Paragraph 7.07.H with the phrase "When requested by the Resident Project Representative".

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SC-7.07 Add the following new paragraph after Paragraph 7.07M:

7.07.N. The Contractor shall include the language of this paragraph in each of its first-tier subcontracts and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this paragraph apply to all subcontractors regardless of tier. At the time of subcontract execution, the Contractor shall verify that each of its first-tier subcontractors meets the following bidder responsibility criteria:

On a project subject to the apprenticeship utilization requirements in RCW 39.04.320. the subcontractor(s) must not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the date of the Owner's first advertisement of the Project.

SC-7.09. Add the following new paragraphs immediately after Paragraph 7.09.A:

7.09.B. Permits and Approvals Provided by the Owner:

7.09.B.1. Owner will apply and pay for the construction permits from Clark County listed below. The Contractor will be required to finalize and sign for these permits.

7.09.B.1.a. Commercial Building Permits: CMN-2025-00165

7.09.B.1.b. Retaining Wall Permit: FRT-2025-00091.

7.09.C. Information regarding permit requirements is available on the Clark County LMS website. Contractor shall examine the permits and conform to the requirements contained therein, including the purchase of additional bonds or insurance as specified therein, and such requirements are hereby made a part of these Contract Documents as fully and completely as though the same were set forth herein. Failure to examine the permit(s) will not relieve Contractor from compliance with the requirements stated therein. Within 5 days after the date of signing the Agreement, Contractor shall confer with an agent of the permitting agency so that insurance requirements and similar matters can be arranged prior to the time set for that portion of the Work.

7.09.D The Clark County Commercial Building Permit is not the only permit required for construction for the Project. The Contractor shall obtain and pay of the other permits required for the Project.

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7.09.E. The Contractor shall arrange for inspections required for all permits required for the Project. The Contractor is responsible for maintaining all permits required for the Project in good standing with the issuing agency.

SC-7.11. Add the following new paragraphs immediately after Paragraph 7.11.C:

7.11.D. While not intended to be inclusive of all Laws or Regulations for which Contractor may be responsible under Paragraph 7.11, the following Laws or Regulations are included as mandated by statute or for the convenience of Contractor:

7.11.D.1. Prevailing Wages:

7.11.D.1.a. Contractor shall pay not less than the prevailing rate of wages in accordance with Washington RCW 39.12.020 or applicable Federal Davis-Bacon and Related Acts (DBRA) Regulations wage rates, whichever is higher. Certificates of wage payments by Contractor shall be submitted to the Department of Labor, with a copy to Owner, in accordance with RCW 39.12.040 and shall pay all fees associated therewith. Wage certification forms shall be provided by Contractor. Copies of these certifications shall be submitted to the Resident Project Representative. It is anticipated that USEPA reporting requirements will be reviewed at the Preconstruction Meeting.

7.11.D.1.b. Washington Prevailing Wage Clause: No worker, laborer, or mechanic employed in the performance of any part of this Agreement shall be paid less than the “prevailing rate of wage” as determined by the Industrial Statistician of the Department of Labor and Industries. The schedule of the prevailing wage rates for the locality or localities where this Agreement will be performed is by reference made a part of this Agreement as though fully set forth herein.

7.11.D.1.c. Washington Prevailing Wage Clause: In case a dispute arises as to what are the prevailing rates of wages for work of a similar nature and such dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the Department of Labor and Industries of the State, and its decision therein shall be final and conclusive and binding on all parties involved in the dispute as provided for by RCW 39.12.060.

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7.11.D.1.d. Owner does not guarantee that labor can be procured for the minimum wages in the wage scale. The rates of wages listed are minimum only, below which Contractor cannot pay, and they do not constitute a representation that labor can be procured for the minimum listed. Contractor shall ascertain the wages above the minimum set forth that may have to be paid.

7.11.D.1.e. US Department of Labor Form WH-347 is available for the convenience of contractors and subcontractors to submit certified payrolls weekly. Properly completed, this form will satisfy the requirements of the regulations in Parts 3 and 5 of Title 29 of the Code of Federal Regulations (CFR) as to certified payrolls submitted in connection with contracts subject to the Davis-Bacon and Related Acts (DBRA).

7.11.D.2. In accordance with RCW 39.04.320, for all public works estimated to cost two million dollars or more, the District requires no less than 15% of the labor hours be performed by apprentices, unless otherwise stated in the bid advertisement. A contractor or subcontractor may not be required to exceed the 15% requirement. On applicable projects, the Bidder shall establish a minimum required percentage of apprentice labor hours compared to the total labor hours. The project's apprenticeship utilization rate is calculated using the approved affidavits from the L&I portal..

7.11.D.3. The provisions of RCW 39.04.240 are included as Laws and Regulations incorporated by reference in the Contract Documents.

7.11.D.4 Apprentice Utilization. This Contract includes an Apprentice Utilization Requirement. Fifteen percent or more of project Labor Hours shall be performed by Apprentices unless Good Faith Efforts are accepted. Apprentice Utilization will be determined using the Washington Department of Labor and Industries (L&I) online Prevailing Wage Intent & Affidavit (PWIA) system.

7.11.D.4.a Definitions. For the purposes of this specification the following definitions apply:

1. Apprentice is a person enrolled in a State-approved Apprenticeship Training Program.
2. Apprentice Utilization is the apprentice labor hours, on the project, expressed as a percentage of project Labor Hours based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up.

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3. Apprentice Utilization Requirement is the minimum percentage of apprentice labor hours required by the Contract.
4. Good Faith Effort(s) (GFE) describes the Contractor's efforts to meet the Apprentice Utilization Requirement including but not limited to the specific steps as described elsewhere in this specification.
5. Labor Hours are the total hours performed by all workers receiving an hourly wage who are subject to prevailing wage requirements for work performed on the Contract as defined by RCW 39.04.310. Labor Hours are determined based on the scope of work performed by the individuals, rather than the title of their occupations in accordance with WAC 296-127.
6. State-approved Apprenticeship Training Program is an apprenticeship training program approved by the Washington State Apprenticeship Council.
7. Apprentice Wage Rates are the applicable wage rates that are to be paid for an apprentice registered in a training program, separate from Journey Level rates, as set by the Washington State Apprenticeship Training Council and Washington State Department of Labor and Industries (L&I).

7.11.D.4.b Electronic Reporting. The Contractor shall use the PWIA System to submit the "Apprentice Utilization Plan". Reporting instructions are available in the application.

7.11.D.4.c Apprentice Utilization Plan. The Contractor shall submit an "Apprentice Utilization Plan" by filling out the Apprentice Utilization Plan Form (WSDOT Form 424-004) within 30 calendar days of execution, however no later than the preconstruction meeting, demonstrating how and when they intend to achieve the Apprentice Utilization Requirement. The Plan shall be in sufficient detail for the Owner to track the Contractor's progress in meeting the utilization requirements. An Apprentice Utilization Plan shall be updated and resubmitted as the Work progresses or when requested by the Owner.

If the Contractor is unable to demonstrate the ability to meet the Apprentice Utilization Requirement with their initial Apprentice Utilization Plan submission, an effort must be made to find additional registered apprentices to perform on the contract. If after attempts have been made at every tier and every scope, the Contractor must submit GFE documentation to the Owner. The Contractor shall actively seek out opportunities to meet the Apprentice Utilization Requirement during the construction Work.

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7.11.D.4.d Contacts. The Contractor may obtain information on State-approved Apprenticeship Training Programs by using the [Apprentice Registration and Tracking System \(ARTS\) https://secure.lni.wa.gov/arts-public/#/program-search](https://secure.lni.wa.gov/arts-public/#/program-search) or contacting the Department of Labor and Industries directly at:

Specialty Compliance and Services Division,
Apprenticeship Section,
P.O. Box 44530
Olympia, WA 98504-4530
or by phone at (360) 902-5320.

7.11.D.4.e Compliance. The Contractor is expected to make attempts to employ Apprentices and shall include the requirement in any subcontracts at any tier. In the event that the Contractor is unable to achieve the Apprentice Utilization Requirement, the Contractor shall submit GFE documentation demonstrating the efforts and attempts they made. Final GFE documentation shall be submitted to the Owner after Substantial Completion but no later than 30 days after Substantial Completion.

If the Contractor fails to actively attempt to employ Apprentices, submit GFE documentation, or if the Owner does not approve the GFE, the Contractor will be assessed a penalty. The Owner will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the failure to comply with this specification which will include a calculation of the penalty to be assessed as provided for in the Payment section in this special provision.

If the Contractor achieves the required Apprentice Utilization an incentive will be assessed with Final Payment.

7.11.D.4.f Good Faith Efforts. The GFE shall document the attempts (efforts) the Contractor (and any subcontractor at any tier) made to meet the Apprentice Utilization Requirement. Emails, letters, or other written communications with letterhead, titles, and contact information are required.

Documentation must include one or more of the following accepted GFEs:

1. Demonstrated Lack of Availability of Apprentices. Correspondence from State-approved Apprenticeship Training Program(s), with project specific responses confirming there is a lack of availability of Apprentices for this project.

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2. Demonstrated Disproportionate Ratio of Material/Equipment/Products to Labor Hours. Documentation explaining the bid includes a disproportionate high cost of material/equipment/products to Labor Hours. (e.g., a \$2M estimated contract includes \$1M or more in procurement costs of equipment to be installed.)
3. Demonstrated Lack of Necessary Labor Hours. Correspondence from a State-approved Apprentice Training Programs confirming there is not enough time in the project to meet required journey level to apprentice training ratios.
4. Demonstrated Lack of Available Approved Programs. Correspondence from State-approved Apprentice Training Programs, confirming there are no programs that train for the scopes included/anticipated on the project. Contractor and state programs to submit training program detail needs and details that could be used for future program creation.
5. Funding Precedent. Documentation that shows conflicting, more restrictive, or precedent requirements for other training on the Project. Examples include, but are not limited to, Tribal Employment Rights (TERO), Federal Training Hours, or Special Training that affect the ability to use state-registered apprentices.
6. Warranty Work. Documentation from Original Equipment Manufacturers, or similar, confirming that work performed must only be completed by certified journey-level installers or risk voiding warranty, or similar.
7. Other Effort. The Contractor may submit other evidence, documentation, or rationale for not being able to achieve the required Apprentice Utilization that are not covered in the other efforts named. Other efforts will still need to be corroborated by an independent, knowledgeable third-party.

Contractors may receive a GFE credit for graduated Apprentice hours through the end of the calendar year for all projects worked on as long as the Apprentice remains continuously employed with the same Contractor/subcontractor they were working for when they graduated. If an Apprentice graduates during employment on a project of significant duration, they may be counted towards a GFE credit for up to one year after their graduation or until the end of the project (whichever comes first). Determination of whether Contract requirements were met in good faith will be made by subtracting the hours from the journeyman total reported hours for the project and adding them to the apprentice hour total. If the new utilization

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percentage meets the Contract requirement, the Contractor will be reported as meeting the requirement in good faith.

7.11.D.4.g Approving Good Faith Efforts. The Owner will review submitted Good Faith Efforts and issue a determination. The Owner may request additional information, documentation, evidence or similar in order to approve such efforts. A determination by the Owner is final. The approved Good Faith Efforts will be loaded into the PWIA system by the Owner.

7.11.D.4.h Payment. Payment will be made for the following Bid Item:

“Apprenticeship Utilization Incentive”

An incentive as identified in the bid form will be paid with the Final Payment only for Contractors who meet the Apprentice Utilization Requirement without a reduction by Good Faith Effort. For the purpose of providing a common proposal for all bidders, the Owner has entered an amount in the proposal to become a part of the total bid by the Contractor.

Apprenticeship Hours will be measured for each hour of work performed by an apprentice as shown on the Monthly Apprentice Utilization Report, based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up.

7.11.D.4.i Penalty for Failure to meet the Apprenticeship Utilization Goals: When the Contractor fails to meet the Apprenticeship goal of 15 percent, a penalty will be assessed for each hour that is not achieved, unless a Good Faith Effort is approved by the Owner, Apprenticeship Utilization Penalty will be calculated as \$5.00 per hour of unmet goal. This penalty shall not exceed one percent (1%) of the total contract amount

7.11.D.4.j The Contractor shall include all related costs in the unit Bid prices of the Contract, included but not limited to implementing, developing, documenting, and administering an apprenticeship utilization program, recording and reporting hours and all other costs to comply with this provision.

SC-7.11. Add the following new paragraph immediately after Paragraph 7.11.D:

7.11.E The Contractor’s Bid includes all tariffs in effect as of the due date for the Contractor’s proposal. If the Contractor incurs any obligation to pay additional amounts relating to new or increased tariffs which take effect after the due date of the Contractor’s proposal, the Contractor will be entitled to an adjustment in the Contract Price reflecting the actual amount of the tariffs that Contractor is required to pay for materials, supplies or equipment, but only if the Contractor provides notice to the

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Owner of the assessment of such new or increased tariff within the time provided by Article 12 of the General Conditions, and only if the Contractor provides supporting documentation reasonably acceptable to the Owner sufficient to establish the actual amounts the Contractor was required to pay for such tariffs and the amount of the tariffs included in the Contractor's Bid. In the event the Contractor pays less for materials, supplies or equipment due to a reduction in tariffs from the amounts included in the Contractor's proposal, the Owner shall be entitled to an adjustment in the Contract Price reflecting the reduced tariffs that Contractor paid for materials, supplies or equipment. The Contractor shall be obligated to provide the Owner with written notice of any decreases to tariffs on material, supplies or equipment from the amounts included in the Contractor's Bid. Upon Owner's request, the Contractor shall be obligated to provide supporting documentation acceptable to the Owner showing the amount of any tariffs included in supplies, materials or equipment included in the Contractor's Bid.

SC-7.17. Delete Paragraph 7.17.A in its entirety and insert the following in its place:

7.17.A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents, will not be defective, and all material and equipment incorporated as part of the Work is merchantable and fit for its intended purpose. Any warranty limitations or disclaimers by the Contractor, suppliers, vendors, or subcontractors to the contrary shall be ineffective as a limitation upon Contractor's warranty under Paragraph 7.17.A. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

SC-7.18. Add the following language to the end of Paragraph 7.18.A:

where negligence is proven to be attributable to Contractor or for parties for whom the Contractor is directly responsible.

SC-7.18. Add the following new paragraphs immediately after Paragraph 7.18.B:

7.18.C. For suits, actions, legal or administrative proceedings, Claims, demands, damages, losses, penalties, fines, costs, and expenses caused by or resulting from the concurrent negligence of Owner and Engineer, or Owner's or Engineer's agents or employees, and Contractor or Contractor's agents or employees, in situations where liability for damages arises from Claims of bodily injury to persons or damage to property, the preceding indemnity and defense provisions shall be valid and enforceable only to the extent of Contractor's negligence in accord and to the extent required by RCW 4.24.115.

7.18.C.1. Contractor's duties of indemnity and defense under this Article and as provided elsewhere in the Contract shall be limited to the extent RCW 4.24.115 applies.

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7.18.C.2. To the extent this indemnity and defense obligation applies to claims by employees of the Contractor, subcontractors, or suppliers, Contractor specifically waives any immunity granted under the Washington industrial insurance law, Title 51 RCW for the purposes of providing indemnity and defense of third-party claims. This waiver has been mutually negotiated by the parties. The Contractor shall similarly require that each subcontractor and supplier it retains in connection with the Work comply with the terms of this provision and similarly waive Title 51 RCW immunity granted for the purpose of providing indemnity and defense of claims asserted by their employees.

7.18.D. Contractor acknowledges that by entering into a Contract with Owner, Contractor has mutually negotiated the above indemnity provision with Owner.

7.18.E. Contractor's indemnity and defense obligations shall survive the termination or completion of the Work and remain in full force and effect until satisfied in full.

7.20 Federal Funding Clauses

Contractor shall comply with the following Federal Funding clauses (Subpart A through Subpart M):

**SUBPART A
EQUAL EMPLOYMENT OPPORTUNITY**

Executive Order 11246 (Contracts/subcontracts above \$10,000)

During the performance of this contract, the contractor and all subcontractors agree to the following:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

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(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or another contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractors' noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the

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administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

SUBPART B
NOTICE TO PRIME CONTRACTOR OF REQUIREMENT FOR
CERTIFICATION OF NONSEGREGATED FACILITIES

Bidders and offerors are cautioned as follows: By signing this bid or offer, the bidder or offeror will be deemed to have signed and agreed to the provisions of the "Certification of Nonsegregated Facilities" in this solicitation. The certification provides that the bidder or offeror does not maintain or provide for his employees facilities which are segregated on a basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that he will not maintain such segregated facilities.

SUBPART C
CONSTRUCTION CONTRACTORS FAIR SHARE ACTION
REQUIREMENTS

1. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the good faith efforts action goals for minority and women participation and which is set forth in the solicitations from which this contract resulted.
2. The prime contractor is required to make a good faith effort in the procurement of a subcontractor(s), if a subcontractor(s) will be used on the project. In addition, it is recommended that the prime contractor make a good faith effort in the procurement of equipment, services, and supplies.
3. When so notified by the Recipient, the apparent low bidder shall provide a listing of DBE subcontractor(s) that they propose to use on this project. Should the bidder fail to recruit DBEs, they shall provide complete documentation which demonstrates the positive efforts made. Failure to satisfy this requirement to the satisfaction of the Recipient shall constitute a non-responsible bid and shall be cause for the owner to reject the bid.
4. The contractor shall implement the specific good faith action steps as provided in the Special Notice under the Instructions to Bidders section of these specifications.

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5. The Contractor and all Subcontractors must perform and document good faith efforts to solicit DBE firms.

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurements funded in part or whole by EPA funds. The rule is found at Federal Regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Prime Contractor Responsibilities:

- Employ the Good Faith Effort steps in paragraphs (a) through (e) (below) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).
 - a) Ensure awareness of contracting opportunities to fullest extent PRACTICABLE, including placing DBE's on solicitation lists;
 - b) Make information on forthcoming opportunities available to DBEs. Adjust time frames and delivery schedules to encourage participation by DBEs. Advertise for bids and proposals for at least 30 days before closing date;
 - c) Divide total requirements when ECONOMICALLY FEASIBLE to permit maximum DBE participation;
 - d) Encourage DBE consortiums for large contracts;
 - e) Use the Department of Small Business and Supplier Diversity to obtain lists of proposed minority and women-owned firms (MBE/WBE);
- Pay subcontractors for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§33.302(a)).
- Notify the recipient in writing prior to prime contractor termination of a DBE subcontractor for convenience (§33.302(b)).
- Employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason (§33.302).
- Employ the six good faith efforts described in § 33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33 (§33.302(d)).
- Semiannually inform contracting agency of DBE participation achieved (§33.502).
- Maintain records documenting compliance with the requirements of Title 40 Part 33, including documentation of good faith efforts (§33.501(a)).

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**SUBPART D
CIVIL RIGHTS ACT OF 1964**

The Contractor and any subcontractors shall not, on the grounds of race, color, or national origin, or sex, exclude from participation in, deny the benefits of, or subject to discrimination, any person under any program or activity receiving federal financial assistance.

**SUBPART E
SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT
AMENDMENTS OF 1972, 33 USC 1251**

No person in the United States shall, on the grounds of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance under the Federal Water Pollution Control Act.

**SUBPART F
REHABILITATION ACT OF 1973; PL 93-112, AND AGE DISCRIMINATION
ACT OF 1975**

The Contractor and any subcontractors shall not on the grounds of race, color, national origin, or sex, exclude from participation in, deny the benefits of, or subject to discrimination any person under any program or activity funded in whole or in part with Federal funds. Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973 shall also apply to any such program or activity.

**SUBPART G
COMPLIANCE WITH SECTION 306 OF THE CLEAN AIR ACT AND
SECTION 508 OF THE CLEAN WATER ACT
(CONTRACTS AND SUBCONTRACTS IN EXCESS OF \$100,000)**

The Contractor agrees that:

1. Any facility to be utilized in the performance of this contract or any subcontract shall not be a facility listed on the EPA List of Violating Facilities pursuant to 40 CFR 15.20.
2. The Contractor and Subcontractors will comply with all requirements of Section 306 of the Clean Air Act, as amended, and Section 508 of the Clean Water Act, as amended, and all regulations and guidelines issued there under.

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3. The Contractor will promptly notify the Clark Regional Wastewater District of any notification received from the Director of the Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

SUBPART H
SECTION 11-51.1, to CHAPTER 417 RELATING
TO THE PROCUREMENT PRACTICES OF ALL PUBLIC BODIES

For every contract over \$10,000 the contractor must maintain a drug-free workplace. During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

SUBPART I
COMPLIANCE WITH SUSPENSION AND DEBARMENT

By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm which has an interest in the contractor's firm is disbarred or suspended from bidding or working on a federally funded project. No part of this contract will be subcontracted to any person or firm who has been debarred or suspended from bidding or working on a federally funded project.

The contractor shall fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled "Responsibilities of Participants Regarding Transactions (Doing Business with Other Persons)." The contractor is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 2 CFR Part 180 and 2 CFR Part 1532, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. The contractor is responsible for further

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requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. The contractor acknowledges that failing to disclose the information required under 2 CFR 180.335 may result in the delay or negation of this assistance agreement, or pursuance of legal remedies, including suspension and debarment.

When the contractor enters into a covered transaction with another person at the next lower tier, he or she must verify that the person with whom they intend to do business is not excluded or disqualified. Do this by:

- (a) Checking the Excluded Parties List System (EPLS); or
- (b) Collecting a certification from that person; or
- (c) Adding a clause or condition to the covered transaction with that person.

The contractor may access the EPLS at <https://www.sam.gov/portal/public/SAM/>.

SUBPART J COMPLIANCE WITH DAVIS-BACON ACT PAYROLL REVIEW

The contractor and its subcontractors shall comply with provisions of the Davis-Bacon Act and Related Acts. The Davis-Bacon Act stipulates that all laborers and mechanics employed by the contractor or subcontractors on federally assisted projects shall be paid wages at rates not less than those prevailing on similar construction in the area as determined by the Secretary of Labor. The contractor and its subcontractors shall comply with provisions of the Contract Work Hours and Safety Standards Act generally applicable to any contracts in excess of \$100,000.

Wage rates specified in the applicable wage determination (Attachment 6) for this construction trade and geographic area are included in the contract specifications immediately following these contract inserts. The wage determination(s) must be posted at the site of the work in a prominent and accessible place. The contractor will also post the Department of Labor poster "Employee Rights under the Davis-Bacon Act" (www.wagehours.dol.gov). The contractor or subcontractor shall insert in any subcontract the clauses included in 29 CFR 5.5 (a) (1) through (12) (Contract Provisions and Related Matters) including the applicable wage rates and a clause requiring the subcontractor include these clauses in any lower tier subcontract. The prime contractor will be responsible for compliance by any subcontractor or lower tier subcontractor with all contract clauses in 29 CFR 5.5 (see Department of Labor website or a Federal regulations website).

Any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage decision. Additional classifications shall be requested from the Department of Labor as

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specified in 29 CFR 5.5 or as amended (see Department of Labor Website for forms and instructions). Upon issuance of an additional classification the new wage rate including fringe benefits where appropriate shall be paid to all workers performing the work in the additional classification from the first day on which work is performed in the classification. The Department of Labor shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and,
- (2) The classification is utilized in the area by the construction industry; and,
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

1) Payroll(s)

All mechanics and laborers employed upon the site of the work will be paid unconditionally and not less than once a week without subsequent deduction or rebate on any account the full amounts of wages and bona fide fringe benefits or cash equivalents thereof except as provided for by Department of Labor regulations issued in accordance with provisions of the Copeland Act. The payment shall be computed at wage rates not less than those contained in the "wage determination" included in these specifications regardless of any contractual relationship alleged to exist between the contractor or its subcontractors and such laborers and mechanics.

Each contractor and subcontractor shall furnish each week, in which any contract work is performed, to the loan recipient (owner) a payroll of wages paid to each of its employees engaged on work during the preceding weekly payroll period. The payroll submitted shall set out accurately and completely all of the information required to be maintained in the Records section below. Each payroll submitted shall be accompanied by a Statement of Compliance signed by the contractor or subcontractor or his/her agent who pays and supervises the payment of persons employed under the contract and shall certify the following:

- 1) that the payroll for the payroll period contains the information noted above and that such information is true and complete,
- 2) that such laborer or mechanic employed on the contract during the payroll period has been paid the full weekly wage earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in federal regulation(s), and,

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- 3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

Laborers and mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the actual time worked therein, provided, that the employee's payroll records accurately set forth the time spent in each classification in which work is performed.

Whenever the minimum rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination classification or pay another bona fide fringe benefit or an hourly cash equivalent thereof. If the contractor does not make payment to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. Contributions made or cost reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions above as well as regular contributions made or costs incurred for more than a weekly period (but not less than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

2) Records

Payrolls and basic records shall be maintained by the contractor and each subcontractor for a period covering three years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work. Payrolls will include the name; his or her correct classification; hourly rates paid as wages paid including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b) (2) (B) of the Davis-Bacon Act; daily and weekly number of hours worked; deductions made; and actual wages paid.

Whenever the Secretary of Labor has found under 29 CFR 5.5 (a) (1) (iv) that wages of any laborer or mechanic include the amount of costs reasonably anticipated in providing benefits under a plan or program described in Section 1 (b) (2) (B) of the Davis-Bacon Act, the contractor shall maintain records which show the commitment to provide such benefits is enforceable, that the plan or program is financially

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responsible, **that the plan or program has been communicated in writing to the laborers or mechanics affected**, and records show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

3) Penalties and Withholding

Falsification of a payroll certification may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of Title 18 and section 231 of Title 31 of the United States code. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or delegated agent may after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guaranteed of funds.

The contractor or subcontractor shall make the payroll records required available for inspection, copying, or transcription by authorized representatives of the owner, EPA, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. Failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

A breach of these contract clauses or the clauses continued in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

The governing body, shall upon its own actions or upon written request of an authorized representative of the Department of Labor withhold from the contractor under this contract or any other federal contract with the same prime contractor, or any other contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics including apprentices, trainees, and helpers employed by the contractor and subcontractor, the full amount of wages required by the contract. In the event of failure to pay any laborer or a mechanic including any apprentice, trainee, or helper, employed or working on the site of the work all or part of the wages required by the contract, the State or the Department of Labor may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guaranteed of funds.

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SUBPART K
APPENDIX A TO 40 CFR PART 33-TERMS AND CONDITIONS

The contractor shall not discriminate on the basis of race, color, and national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

SUBPART L
BUILD AMERICA, BUY AMERICA ACT TITLE IX OF P. L. 117-58

INTRODUCTION

The Bipartisan Infrastructure Law (BIL) provides federal investment in water infrastructure in communities across America. Title IX of the BIL is the Build America, Buy America (BABA) Act, which establishes permanent domestic sourcing requirements across all Federal financial assistance programs for infrastructure.

Guidance on BABA from the Environmental Protection Agency (EPA) can be found in the OW-BABA- Implementation-Procedures-Final-November-2022.pdf.

APPLICABILITY

Per the BIL, Federal infrastructure funding obligated on or after May 14, 2022, must comply with the BABA requirements. Absent a waiver, all iron, steel, manufactured products, and construction materials permanently incorporated into an infrastructure project subject to the BABA requirements, must be produced in the United States.

Any project that is funded in whole or in part with federal assistance must comply with the BABA requirements, unless the requirements are otherwise waived.

BABA WAIVERS

De Minimis General Applicability Waiver

BABA requirements are waived for products used in and incorporated into a project that cumulatively comprise no more than five percent of the total project construction cost.

BABA REQUIREMENTS

For many EPA funded water projects, the vast majority of products permanently incorporated into construction, maintenance, or repair projects must comply with the BABA requirements, with the exception of select construction materials (cement and

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cementitious materials (and asphalt); aggregates such as stone, sand, or gravel; or aggregate binding agents or additives), which are specifically excepted by the BABA statute.

For more information on the BABA requirements, visit the EPA Office of Water's dedicated website – <https://www.epa.gov/cwsrf/build-america-buy-america-baba>.

PRODUCTS AND MATERIALS COVERED UNDER BABA

As described below, there are three categories of products and materials covered by the BABA requirements including 1) iron and steel products, 2) construction materials, and 3) manufactured products.

Iron and Steel Products

The list of products below would be classified as “Iron and Steel” under BABA. Although this list is not comprehensive, these products were classified as AIS products if made primarily (more than 50 percent) of iron and/or steel by materials cost (for programs subject to both AIS and BABA, this list would be equivalent for “iron and steel” items or products under either requirement):

Products likely made “primarily” of iron and steel to be classified as Iron and Steel under BABA

Lined and Unlined Pipe	Lined and Unlined Fittings	Tanks
Flanges	Pipe Clamps and Restraints	Structural Steel
Valves	Hydrants	Pre-Cast, Iron/Steel Reinforced Concrete (of all types, regardless of iron/steel
Manhole Covers and other Municipal Castings	Access Hatches	Ballast Screens
Iron or Steel Benches	Bollards	Cast Bases
Cast Iron Hinged Hatches	Cast Iron Riser Rings	Catch Basin Inlets
Cleanout/Monument Boxes	Construction Covers and	Curb and Corner Guards
Curb Boxes	Curb Openings	Curb Stops
Detectable Warning Plates	Downspout Shoes	Drainage Grates
Drainage Grate Frames and Curb Inlets	Inlets	Junction Boxes
Lampposts	Manhole Rings and Frames	Manhole Risers
Meter Boxes	Service Boxes	Steel Hinged Hatches
Steel Riser Rings	Trash Receptacles	Tree Grates
Tree Guards	Trench Grates	Valve Boxes
Valve Box Covers and Risers	Access Ramps	Aeration Pipes and Fittings (separate from

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Angles	Backflow Preventers/Double Check Valves	Baffle Curtains
Iron or Steel Bar	Bathroom Stalls	Beam Clamps
Cable Hanging Systems	Clarifier Tanks	Coiled Steel
Column Piping	Concrete Reinforcing Bar, Wire, and Fibers	Condensate Sediment Traps
Corrugated Pipe	Couplings	Decking
Digester Covers	Dome Structures	Door Hardware
Doors	Ductwork	Expansion Joints
Expansion Tanks (diaphragm, surge, and hydropneumatics)	Fasteners	Fencing and Fence Tubing
Fire Escapes	Flanged Pipe	Flap Gates
Framing	Gate Valves	Generic Hanging Brackets
Grating	Ground Testing Boxes	Ground Test Wells
Guardrails	HVAC Registers, Diffusers,	Joists
Knife Gates	Ladders	Lifting Hooks, J-bar, Connectors within, and Anchors for Concrete Lockers
Lockers	Man Baskets and Material	Manhole Steps
Mud Valves	Municipal Casting Junctions	Non-mechanical (aka stationary) Louvers and
Overhead Rolling Doors/ Uplifting Doors (manual	Pipe Connectors	Pipe Hangers
Pipe Pilings (any type of steel piling)	Pipe Spool (pipe, flanges, connectors, etc.)	Pipe Supports
Pitless Adaptors	Pre-fab Steel Buildings/Sheds (simple structure,	Pre-stressed Concrete Cylinder Pipe (PCCP)
Railings	Reduced Pressure Zone (RPZ) Valves	Roofing
Service Saddles	Sheet Piling	Sinks (not part of eyewash systems)
Solenoid Valves	Stairs	Static Mixers
Stationary Screens	Surface Drains	Tapping Sleeves
Telescoping Valves	Tipping Buckets	Trusses
Tubing	Valve Stem Extensions	Valve Stems (excluding handwheels and actuators)
Wall Panels	Wall Sleeves/Floor Sleeves	Welding Rods
Well Casing	Well Screens	Wire
Wire Cloth	Wire Rod	Wire Rope and Cables

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Projects using valves should classify them as iron and steel products under BABA as long as their material cost is made up of more than 50 percent iron and/or steel. Valves with 50 percent or less iron and/or steel by material cost would be considered manufactured products under the BABA requirements.

An article, material, or supply should be classified into only one of the three categories: iron and steel, manufactured products, or construction materials. Under the AIS requirements, all valves made primarily of iron and steel (that is, those with iron and/or steel material cost greater than 50 percent) must comply with the AIS requirements.

Construction Materials

From Office of Management and Budget (OMB) Guidance M-22-11: “construction materials” include an article, material, or supply (other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents or additives; or non- permanent products) that is or consists primarily of:

- non-ferrous metals,
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables),
- glass (including optic glass),
- lumber, and drywall.

Manufactured Products

From OMB Guidance M-22-11: “...all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation...”

The manufactured products category would cover the majority of potential water infrastructure products, including complex products made up of a variety of material types and components. For water infrastructure projects, common manufactured products would include, but not be limited to, pumps, motors, blowers, aerators, generators, instrumentation and control systems, gauges, meters, measurement equipment, treatment equipment, dewatering equipment, actuators, and many other mechanical and electrical items.

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Products that could be made “primarily” of iron and steel but would be classified as “manufactured products” under BABA are included in the list below. Although the list is not comprehensive, these products were classified as AIS products if made primarily (more than 50 percent) of iron and/or steel by materials cost (Note: These items are not subject to the AIS requirements.):

**Products likely made “primarily” of iron and steel to be classified as
Manufactured Products under BABA**

Actuator Superstructures/ Support Structures	Aeration Nozzles and Injectors	Aerators
Analytical Instrumentation	Analyzers (e.g., ozone, oxygen)	Automated Water Fill Stations
Blowers/Aeration Equipment	Boilers, Boiler Systems	Chemical Feed Systems (e.g., polymer, coagulant, treatment chemicals)
Chemical Injection Quills	Chemical Injectors	Clarifier Mechanisms/Arms
Compressors	Controls and Switches	Conveyors
Cranes	Desiccant Air Dryer Tanks	Dewatering Equipment
Dewatering Roll-offs	Disinfection Systems	Drives (e.g., variable frequency drives)
Electric/Pneumatic/Manual Accessories Used to Operate Valves (such as electric valve actuators)	Electrical Cabinetry and Housings (such as electrical boxes/enclosures)	Electrical Conduit
Electrical Junction Boxes	Electronic Door Locks	Elevator Systems (hydraulic, etc.,)
Emergency Life Systems (including eyewash stations, emergency safety showers, fire extinguishers, fire suppression systems including sprinklers /piping/valves, first aid, etc.)	Exhaust Fans	Fall Protection Anchor Points
Fiberglass Tank w/Appurtenances	Filters (and appurtenances, including underdrains, backwash systems)	Flocculators
Fluidized Bed Incinerators	Galvanized Anodes/Cathodic Protection	Gear Reducers
Generators	Geothermal Systems	Grinders
Heat Exchangers	HVAC (excluding ductwork)	HVAC Dampers (if appurtenances to aerators/blowers)
HVAC Louvers (mechanical)	Intake and Exhaust Grates (if appurtenances to aerators/blowers)	Instrumentation
Laboratory Equipment	Ladder Fall Prevention Systems	Ladder Safety Posts

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Lighting Fixtures	Lightning and Grounding Rods	Mechanical or Actuated Louvers/Dampers
Membrane Bioreactor Systems	Membrane Filtration Systems	Metal Office Furniture (fixed)
Meters (including flow, wholesale, water, and service connection)	Motorized Doors (unit)	Motorized Mixers
Motorized Screens (such as traveling screens)	Motors	Pelton Wheels
Pipeline Flash Reactors (similar to injectors)	Plate Settlers	Precast Concrete without Iron/Steel Reinforcement
Furnished Pre-fab Buildings (such as furnished with pumps, mechanics inside)	Presses (including belt presses)	Pressure Gauges
Pump Cans/Barrels and Strainers	Pumps	Mechanical Rakes
Safety Climb Cable	Sampling Stations (unless also act as hydrant)	Scrubbers
Sensors	Sequencing Batch Reactors (SBR)	Steel Shelving (fixed)
Slide and Sluice Gates	Spray Header Units	Steel Cabinets (fixed interior/furniture)
Supervisory Control and Data Acquisition (SCADA) Systems	Tracer Wire	Valve Manual Gears, Actuators, Handles
Voltage Transformer	Water Electrostatic Precipitators (WESP)	Water Heaters
Weir Gates		

DOCUMENTING BABA COMPLIANCE

To comply with BABA requirements, the funding recipient must provide adequate documentation to demonstrate the following:

- 1) Documentation linked to the project. For example, this can be in the form of the project name, project location, contract number, or project number.
- 2) Documentation linked to the product used on the project. For example, description of product(s) (simple explanation sufficient to identify the product(s)), or an attached (or electronic link to) purchase order, invoice, or bill of lading.
- 3) Documentation including a statement attesting that the products supplied to the funding recipient are compliant with BABA requirements. A reference to the Bipartisan Infrastructure Law (BIL) or the Infrastructure Investment and Jobs Act ("IIJA") are also acceptable. For iron and steel items under BABA, certifications may reference BABA or AIS. Documentation that the products

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comply with the Buy American Act do not satisfy BABA compliance requirements. EPA also recommends for manufactured products and for construction materials that certification letters include direct reference to the product/material content requirements under BABA.

- 4) Documentation that manufacturing occurred in the United States, which could include, for example, the location(s) of manufacturing for each manufacturing step that is being certified. It is acceptable for manufactured products to note a single point of manufacturing, documenting that the final point of manufacturing is in the United States. Note that each BABA category may require different determinations for compliance.
- 5) Signature of company representative (on company letterhead and signature can be electronic). The signatory of the certifying statement affirms their knowledge of the manufacturing processes for the referenced product(s) and attests that the product meets the BABA requirements.

It is acceptable, in many cases, especially for highly complex manufactured products that utilize many sub-components, for the final point of assembly to certify without using a “step certification” process. Multiple certifications (i.e., step certifications) or a singular certification can be used for a product, as long as the certifying official is willing to attest to the product’s compliance with BABA requirements at all stages of manufacturing.

Material Test Reports (MTRs, commonly referred to as “Mill Certifications” or “Mill Certs”) are acceptable in lieu of a BABA certification for iron and steel. If an MTR accompanies the delivery of steel or iron to a project site with an invoice or bill of lading, EPA considers it sufficient to demonstrate compliance (equivalent to a certification letter) as long as the MTR includes a manufacturer representative’s signature in addition to the location (city and state) of the mill/foundry. It is common for MTRs to be the first letter in a “step certification” if the product is further fabricated or painted, etc., by another manufacturer.

EPA recommends that representatives of product manufacturers certify compliance and discourages suppliers and distributors from creating certification letters.

Funding recipients must maintain BABA compliance documentation records for a period of three years or longer if required by other funding programs.

General Certifications

Within no more than 21 days after determination of the apparent low bidder, the contractor shall provide Owner (funding recipient) the certification included as **Attachment 7 (BABA Initial Certification Statement)**. The owner may consider requiring bidders to submit **Attachment 7** with their bid. At the conclusion of the project, the contractor will certify with their final payment request that the original

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certification is still valid or document any changes or substitutions. For this certification, the contractor should submit to the owner **Attachment 8 (BABA Final Certification Statement)**. If changes or substitutions are disallowed by EPA, part or all of the funding may be forfeited by the owner. As State or Federal law permits the owner may seek damages from the contractor.

RELATIONSHIP TO AIS

The BABA requirements for items considered “iron and steel” are equivalent to those for covered iron and steel products under the AIS requirements in the Safe Drinking Water Act. **AIS requirements are covered in Subpart L of this document.**

SC 7.21 Required Language Regarding DBE Soliciting in Advertisement for Bids

Contractor shall include the following language in all Contractor’s solicitations for bids related to the proposed Work.

“MBE/WBE firms are encouraged to submit bids. Bidders must comply with the following: the President’s Executive Order # 11246 prohibiting discrimination in employment regarding race, color, creed, sex, or national origin; the President’s Executive Orders # 12138 and 11625 regarding utilization of MBE/WBE firms; the Civil Rights Act of 1964; the Davis-Bacon Act; and Section 436 of P. L. 113-76, American Iron and Steel. Bidders must certify that they do not or will not maintain or provide for their employees any facilities that are segregated on the basis of race, color, creed, or national origin.”

SUBPART M PROCUREMENT OF RECOVERED MATERIALS

The requirements of Section 6002 of the Solid Waste Disposal Act (as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6962) require contractors to procure only items designated in the guidelines of Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

The recipient or subrecipient should, to the greatest extent practicable and consistent with law, purchase, acquire, or use products and services that can be reused, refurbished, or recycled; contain recycled content, are biobased, or are energy and water efficient; and are sustainable. This may include purchasing compostable items

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and other products and services that reduce the use of single-use plastic products. See Executive Order 14057, section 101, Policy.

SUBPART N

BYRD ANTI-LOBBYING AMENDMENT

The requirements of 31 U.S.C. Section 1352 (as amended) require contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not been used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. section 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

Contractors who apply or bid for an award of \$100,000 or more shall submit Certification Regarding Lobbying with their bid pursuant to Appendix A, 44 C.F.R. Part 18.

SC-8.02. Add the following new paragraph immediately following Paragraph 8.02.B:

8.02.C. Other work anticipated to be performed at the Site by others that is either directly or indirectly related to the scheduled performance of the Work under these Contract Documents is described in Section 01 31 13, Project Coordination and Section 01 31 15, Construction Sequencing and Constraints.

SC-8.03. Add the following new paragraph immediately after Paragraph 8.03.C:

8.03.D. Failure by the Contractor to timely submit a Change Proposal in accord with this Article shall be deemed a complete waiver of any and all adjustments to Contract Times, Contract Price, and any other equitable or legal remedy related to the events and occurrences described in this Article. As a condition precedent to any right to submit a Claim under Article 12, Contractor shall provide proof of a timely submitted Change Proposal as required by this Article.

SC-8.04. Add the following new paragraphs immediately after Paragraph 8.03:

SC-8.04. *Claims Between Contractors:*

8.04.A. Should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any other contractor against Contractor, Owner, Engineer, or the Construction Manager, if applicable, Contractor shall (without

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involving Owner, Engineer, or Construction Manager) either i) remedy the damage; ii) agree to compensate the other contractor for remedy of the damages; or iii) remedy the damages and attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.

8.04.B. Subject to the provisions of RCW 4.24.115, Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, the Construction Manager (if applicable) and the officers, directors, members, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all Claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other contractor against Owner, Engineer, their officers, directors, members, partners, employees, agents, and other consultants and subcontractors, or the Construction Manager (if applicable) to the extent said Claim is based on or arises out of Contractor's performance of the Work.

8.04.C. Subject to the limitations of this section and RCW 4.24.115, if applicable, if Contractor is delayed. If Contractor is delayed at any time in performing or furnishing the Work by any act or neglect of another contractor employed by Owner, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times or Contract Price attributable thereto, Contractor may make a Claim for an extension of times or change in compensation attributable thereto, Contractor may only make a Claim for an extension of times or change in compensation in accordance with Article 11 herein. This paragraph does not prevent recovery from Owner or Engineer for activities that are their respective responsibilities.

SC-10.03. Add the following new paragraphs immediately after Paragraph 10.03.B:

10.03.C. Resident Project Representative will be furnished by Owner. The responsibilities, authority, and limitations of the RPR are limited to those of the Owner in accordance with Article 9 and as described below.

10.03.D. Responsibilities and Authority:

10.03.D.1. Schedules: Review and monitor the Progress Schedule, Schedule of Submittals, and Schedule of Values prepared by Contractor.

10.03.D.2. Conferences and Meetings: Conduct or attend meetings with Contractor, such as preconstruction conferences, progress meetings, Work conferences and other Project related meetings.

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10.03.D.3. Liaison: (i) Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, and assist in understanding the intent of the Contract Documents; (ii) serve as Owner's liaison with Contractor when Contractor's operations affect Owner's onsite operations; (iii) assist in obtaining additional details or information from Owner when required for proper execution of the Work.

10.03.D.4. Interpretation of Contract Documents: Transmit to Contractor clarifications and interpretations issued by Engineer or Owner to Contractor.

10.03.D.5. Submittals: Receive submittals that are furnished by Contractor, and notify Engineer of availability for examination.

10.03.D.6. Modifications: Consider Contractor's suggestions for modifications in Drawings or Specifications; transmit to Contractor, in writing decisions as issued by Engineer.

10.03.D.7. Review of Work and Rejection of Defective Work: (i) Conduct onsite observations of the Work in progress; (ii) inform Contractor whenever RPR believes that any Work is defective; (iii) advise Contractor whenever RPR believes that any Work will not produce a completed Project that conforms generally to the Contract Documents, or has been damaged or does not meet the requirements of any inspection test, or approval required to be made.

10.03.D.8. Inspections, Tests, and System Startups: Verify tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof.

10.03.D.9. Payment Requests: Review Applications for Payment with Contractor for compliance with the Contract Documents.

10.03.D.11. Completion: (i) Participate in a Substantial Completion inspection; assist in determination of Substantial Completion and the preparation of lists of items to be completed or corrected; (ii) Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied; and (iii) observe whether items on final list have been completed or corrected

10.03.E. Limitations of Authority: Resident Project Representative will not:

10.03.E.1. Exceed the limitations of Owner's authority as set forth in Contract Documents; or

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10.03.E.2. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's authorized representative; or

10.03.E.3. Advise on, issue directions relative to, or assume control over an aspect of the means, methods, techniques, sequences, or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents; or

10.03.E.4. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor; or

10.03.E.5. Participate in specialized field or laboratory tests or inspections conducted offsite by others; or

10.03.E.6. Accept Shop Drawings or Samples from anyone other than Contractor.

SC-10.07. Add the following new paragraph immediately after Paragraph 10.07.E:

10.07.F. Contractors, Subcontractors, Suppliers, and others on the Project, or their sureties, shall maintain no direct action against Engineer, its officers, employees, affiliated corporations, and subcontractors, for any Claim arising out of, in connection with, or resulting from the engineering services performed. Only the Owner will be the beneficiary of any undertaking by Engineer.

SC-11.07. Add the following new paragraph immediately after Paragraph 11.07.C:

11.07.D. In the event Contractor submits request for additional compensation as a result of a change or differing Site conditions, or as a result of delays, acceleration, or loss of productivity, Owner reserves right, upon written request, to audit and inspect Contractor's books and records relating to the Project. Upon written request for an audit, Contractor shall make its books and records available within 14 days of request. Owner shall specifically designate identity of auditor. As part of audit, Contractor shall make available its books and records relating to the Project, including but not limited to Bidding Documents, cost reports, payroll records, material invoices, subcontracts, purchase orders, daily timesheets, and daily diaries. Audit shall be limited to those cost items which are sought by Contractor in a change order or claim submission to Owner.

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SC-11.10. Add the following new paragraph immediately after Paragraph 11.10:

SC-11.11. *Failure to Timely Submit Complete Waiver:*

11.11.A. Failure by the Contractor to timely submit a Change Proposal in accord with this Article shall be deemed a complete waiver of any and all adjustments to Contract Times, Contract Price, and any other equitable or legal remedy related directly or indirectly to the Work or this Agreement. As a condition precedent to any right to submit a Claim under Article 12, Contractor shall provide proof of a timely submitted Change Proposal as required by this Article.

SC-12.01. Add the following at the end of Paragraph 12.01.B:

The Contractor agrees to waive any Claim for adjustment to the Contract Times, Contract Price, and any other legal or equitable relief related directly or indirectly to the Work or this Agreement if a timely Change Proposal for the claimed relief has not been previously submitted for the relief requested.

SC-13.01. Delete Paragraph 13.01.B.5.c in its entirety and insert the following in its place:

13.01.B.5.c. *Construction Equipment and Machinery Rental:*

13.01.B.5.c.(1) Rentals of construction equipment and machinery, and the parts thereof in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. Such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

13.01.B.5.c.(2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment and include an equipment rate book appropriate for the Project. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

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SC-13.01. Add the following language to the end of Paragraph 13.01.B.5.h:

Express and courier services must be approved prior to use.

SC-14.02. Add the following language at the end of Paragraph 14.02.D:

Tests required by Contract Documents to be performed by Contractor that require test certificates be submitted to Owner or Engineer for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required, testing laboratories or agencies shall meet the following applicable requirements:

14.02.D.6. Basic requirements of ASTM E329, “Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection,” as applicable.

14.02.D.7. Calibrate testing equipment at reasonable intervals by devices of accuracy, traceable to the National Institute of Standards and Technology or accepted values of natural physical constants.

SC-15.01. Add the following language at the beginning of Paragraph 15.01.B.1:

Prior to submitting initial payment invoice, Contractor and its Subcontractors shall provide Owner with “Statement of Intent to Pay Prevailing Wages” as required by RCW 39.12.040.

SC-15.01. Delete Paragraph 15.01.D.1 in its entirety and insert the following in its place:

15.01.D.1. Thirty days after presentation of the Application for Payment to Owner with Engineer’s recommendation, the amount recommended will (subject to the provisions of Paragraph 15.01.E) become due and when due will be paid by Owner to Contractor.

SC-15.03. Add the following new paragraph immediately after Paragraph 15.03.B:

15.03.B.1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

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SC-15.06. Add the following new paragraph immediately after Paragraph 15.06.A.3:

15.06.A.4. When the Final Payment Application has been received and accepted the Owner will submit a “Notice of Completion of Public Works Project” to the State of Washington Department of Revenue, Labor and Industries, and Employment Security Department. Retainage will be re-leased after the District has received the following:

15.06.A.4.a. Department of Labor and Industries “Affidavit of Wages Paid” – Prime Contractor.

15.06.A.4.b. Department of Labor and Industries “Affidavit of Wages Paid” – All Subcontractors.

15.06.A.4.c. Department of Labor and Industries release for payment of Industrial Insurance.

15.06.A.4.d. Department of Revenue release for payment of state taxes.

15.06.A.4.e. Employment Security Department release for Employment Security Act.

15.06.A.4.f. Release of use of private property for staging and/or storage of materials – if applicable.

15.06.A.4.g. Final David Bacon and Related Acts (DBRA) Certified Payroll Form.

15.06.A.4.h. All documentation required by the Contract Provisions.

15.06.A.4.i. The Owner will place an advertisement in the local newspaper allowing 30 days for subcontractors or suppliers to file claims against the project.

SC-15.06. Add the following new paragraph immediately after Paragraph 15.06.B:

15.06.B.1. Upon Owner’s receipt of (i) Engineer’s written recommendation of payment with Contractor’s Final Application for Payment and accompanying documentation, and (ii) Engineer’s written notice that the Work is acceptable subject to the provisions of Paragraph 14.09, Owner will notify the Department of Revenue of the completion of the Work under these Contract Documents. Provided the Department of Revenue certifies there are no taxes or penalties due and owing from Contractor, and there are no other known Claims or Liens against the retained funds, Owner will make payment to

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Contractor in accordance with Paragraph 14.07 subject to the provisions of RCW 60.28.010. In the event unsatisfied Claims or Liens for taxes, material, labor, and other services are known to exist, an amount will be further withheld from the retainage sufficient to satisfy the settlement of such Claims and Liens, including attorney's fees incurred, and remainder will be released from escrow, or released from retained funds and paid to Contractor.

SC-15.06. Add the following to the end of the last sentence of Paragraph 15.06.E:

and all documents, notices, and certifications listed herein have been received and accepted by the Owner.

SC-15.08. Delete Paragraph 15.08.B in its entirety and insert the following in its place:

15.08.B. Owner shall give any such notice of defect within 120 days of the discovery that such Work or repairs is defective. If such notice is given within such 120 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

SC-15.08.C. Revise the first sentence of Paragraph 15.08.C by changing the word "60" to "120".

SC-15.08. Delete Paragraph 15.08.F in its entirety and insert the following in its place:

15.08.F. This obligation to correct defects or failure of performance is in addition to all other warranties and obligations under the terms of the Contract including but not limited to manufacturer's warranties and the Contractor's warranty and obligation that the work performed and materials supplied meet or exceed the quality and performance required by the Contract Documents. In addition, the provisions of this paragraph are not a waiver or substitute of the provisions of any applicable statute of limitation or repose.

SC-16.02. Add the following new paragraph immediately after Paragraph 16.02.A.4:

16.02.A.5. Contractor otherwise materially breaches the Contract.

SC-16.02. Add the following at the end of Paragraph 16.02.D:

This paragraph shall apply to cancel or defer termination only if the Owner is reasonably assured that the Contractor will timely perform and complete any such cure.

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SC-17.01. Add the following new paragraph immediately after Paragraph 17.01:

SC-17.02. *Forum Selection:*

17.02.A. All disputes that are not otherwise resolved in accord with the resolution provisions of this Agreement shall be determined by litigation in Clark County Superior Court.

SC-18.04. Add the following new paragraph immediately after Paragraph 18.04.A:

18.04.B. Contractor agrees to limit any adjustment to the Contract Price for overhead, extended overhead, impacts, consequential damages, and any other items that are not otherwise specifically included in the Cost of the Work (as defined herein) to the Contractor's Fee as provided under Article 11.07.C. Contractor's recovery for all legal and equitable claims and recovery related directly or indirectly to the Work or this Agreement shall be limited exclusively to those adjustments to the Contract Price and Contract Times as specifically provided in this Agreement.

SC-18.11. Add the following new paragraph immediately after Paragraph 18.10:

SC-18.11. *Statute of Limitations:*

18.11.A. Any applicable statute of limitation or statute of repose shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of substantial completion regardless of the date of discovery of the event giving rise to the cause of action.

END OF SECTION

TECHNICAL SPECIFICATIONS

**SECTION 01 11 00
SUMMARY OF WORK**

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The completed Work will provide Owner with new facilities and modifications to existing facilities at the Salmon Creek Treatment Plant and generally includes the following:
1. Site Improvements:
 - a. New access walkway to Facility 55 UV Disinfection.
 - b. New electrical duct bank between Facility 83 Electrical Building and Facility 55 UV Disinfection.
 - c. New stormwater catch basin and rerouting of catch basin drain, including relocation of existing piping.
 - d. Resurfacing of roadway.
 2. Facility 55 UV Disinfection:
 - a. Disassembly of canopy at Facility 55 and demolition of canopy supports and a portion of slab on grade as shown on the Drawings.
 - b. Addition of UV Disinfection Channel 2, connection to existing 48-inch piping from Channel 1, new 48-inch pipe stubout for future connection of secondary effluent, penetration in concrete wall to allow new UV Disinfection Channel 2 to flow into effluent pump station, and installation of UV Disinfection Equipment Package and a motor power center.
 - c. Demolition of UV equipment at UV Disinfection Channel 1 and installation of UV Disinfection Equipment Package 1 UV Disinfection in Channel 1.
 - d. Modification of canopy and reinstallation over Channel 1 and Channel 2.
 3. Facility 83 Electrical Building:
 - a. Addition of transformers to support the UV Disinfection Equipment.
 - b. Installation of UV Disinfection Equipment Package.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 15 00
MITIGATING COMMUNITY IMPACTS

PART 1 GENERAL

1.01 PURPOSE

- A. Owner is undertaking a multi-project, multi-year program to upgrade and increase the capacity of the Salmon Creek Wastewater Treatment Plant. Land abutting the plant on the south and east has been developed into residential neighborhoods since any significant construction work has been performed at the plant. Owner is committed to mitigating the impacts of construction on these neighbors and the surrounding neighborhood.
- B. This section provides requirements to minimize the impacts of traffic, noise, vibration, light, dust, and emissions from construction activities on the neighborhood. The intent of this section is to reduce or eliminate impacts due to construction to the extent possible to avoid complaints from the neighbors to the Owner.
- C. Requirements of this section may be more stringent than applicable county, state, or federal laws, codes, regulations, ordinances, or guidelines. If the requirements of other sections conflict with requirements of this section, then this section shall take precedence.

1.02 ENFORCEMENT

- A. Contractor is responsible for ensuring the requirements of this section are met implemented by workers on Site, any subcontractors, suppliers, vendors, or any others engaged in the Work or traveling to Site because of the Work. When necessary Contractor shall take corrective action including stopping the Work, changing Work means and methods, and removing workers, subcontractors, suppliers, vendors, or any others engaged in Work from Site.
- B. In the event the Contractor should not comply with the requirements of this section the Owner, through the RPR, has the authority to take appropriate actions to enforce the requirements of this section. This includes, but is not limited to, stopping work that is creating the impact, banning any person or subcontractor from the Site, or other action as the RPR deems necessary. Contractor shall make no claim for additional time or cost because RPR has taken actions to enforce this section as long as those actions are reasonable.

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- C. Requirements of this section may be subjective and up to the judgement of Owner's Resident Project Representative. Contractor shall immediately comply with any directions given by RPR to enforce the requirements of this plan. Contractor may request reconsideration of the direction only after eliminating the impact.
- D. Owner will coordinate with the Clark County Sheriff for enforcement of traffic regulations on the public roads. Owner will coordinate with other departments and governmental agencies if needed to enforce requirements of this section.

1.03 REFERENCES

- A. The following is a list of standards which are applicable to the Work of this section:
 - 1. Clark County Washington Code, Chapter 9.14 Public Disturbance Noise.
 - 2. State of Washington, Chapter 173-60 WAC Maximum Environmental Noise Levels.

1.04 SUBMITTALS

- A. Informational Submittals:
 - 1. Traffic, Haul Routes, and Parking Plan: Plan shall include how Contractor will communicate this plan to workers on the Site, any subcontractors, suppliers, vendors, or any others engaged in the Work or traveling to the Site because of the Work so they are aware of and comply with this plan at all times. Include training materials to be used.
 - 2. Construction Noise Mitigation Plan: Plan shall include how Contractor will comply with requirements of this section. Plan shall include how Contractor will communicate this plan to workers on the Site, any subcontractors, suppliers, vendors, or any others engaged in the Work or traveling to the Site because of the Work so they are aware of and comply with this plan at all times. Include training materials to be used.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 WORK HOURS

- A. Normal hours of work are limited to 7:00 a.m. to 7:00 p.m. on Monday through Friday.

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- B. Allowable hours of work associated with shutdowns, bypass, or other constraints are described in Section 01 31 15, Construction Sequencing and Constraints.
- C. Nighttime work outside of the normal work hours shall be limited to those activities that must be completed at night to maintain plant operations, emergency repair activities, or work on the interior of the structures.
- D. Approval of Owner is required for any work scheduled outside of normal work hours. Contractor shall make a written request at least 24 hours ahead of time and provide justification for why the work must be done outside of normal work hours.
- E. Limitation on hours of work applies to the actual performance of construction work activities and preparing for construction activities. Preparing for construction activities includes any activity that creates construction traffic on McCann Road, noise, vibration, light, dust and emissions. starting equipment prior to actual commencement of construction to “warm up” engines, setting up for concrete pumping, haul trucks traveling on McCann Road, or arriving onsite prior to the start time of normal hours of work, or equipment maintenance and fueling before or after a shift.
- F. Limitation on hours of work does not apply to the Contractor’s office administrative work that does not cause traffic, noise, vibration, light, dust and emissions, planning, supervision, or other administrative activities that typically occur indoors or do not generate noise or other nuisances.

3.02 TRAFFIC, HAUL ROUTES, AND PARKING

- A. Vehicle access to the SCTP site is via NW McCann Road. This road traverses residential neighborhoods surrounding the SCTP. Contractor shall provide traffic safety training for personnel accessing the Project Site and require the same of all subcontractor personnel accessing the Project Site. NW McCann Road is equipped with traffic calming devices.
- B. Supplement to this section shows the allowable route for all vehicle traffic to the Site. Contractor shall require that workers on the Site, any subcontractors, suppliers, vendors, or any others engaged in the Work use the route shown in this attachment.
- C. Contractor shall enforce a speed limit of 20 mph for all employee, visitors, deliveries and any other traffic on the access road from the intersection of NW 142nd Street to the plant. Contractor’s workers shall observe a speed limit inside plant gate of 5 mph.

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- D. Material and equipment shall be unloaded on SCTP property in areas designated for Contractor's use. Contractor shall not block access by neighbors to NW McCann Road at any time.
- E. Contractor shall schedule material deliveries and other trucks so they do not travel on NW McCann Road between NW 36th Avenue and the plant Site before 7:00 a.m. or after 7:00 p.m. This includes dump trucks, concrete delivery trucks, concrete pump trucks, semi-trailer trucks, flatbed trucks, and any other large vehicles that might cause noise, vibration, or other disturbance. Onsite activities that rely on these delivery trucks shall be scheduled to start later and/or finish earlier in the day to allow delivery trucks to travel to and from the Site within the allowable time period.
- F. Speed bumps installed in the pavement on NW McCann Road are a source of noise and vibration complaints when trucks and trailers pass over them. Contractor's traffic plan shall describe what steps will be taken to reduce these complaints. This shall include reduced speed for truck/trailer combinations traveling on NW McCann Road to below the posted speed limit if necessary.
- G. Contractor shall identify a location outside of the residential area for trucks that are arriving before 7:00 a.m. to park until they can travel to the Site. Contractor shall communicate this staging Site to subcontractors, suppliers, and any others that will be delivering material to the Site.
- H. Parking for construction workers shall be either at the SCTP Site in areas designated for the Contractor's use or at an offsite location provided by Contractor. The existing parking lots around the Administration Building shall not be used for any construction related parking.

3.03 NOISE AND VIBRATION

- A. Contractor shall consider noise when selecting construction equipment and methods of work, consider alternative construction methods for activities that are known to be exceptionally noisy such as pile driving or demolition, and incorporate noise control measures when executing any work.
- B. Engine driven portable equipment, such as generators, self-priming pumps, or compressors shall be located as far from residential receptors as practicable and placed to make use of existing buildings as screening. Any equipment that will run continuously or run overnight shall have residential grade mufflers and sound attenuating enclosures meeting County noise requirements for night-time residential areas.
- C. Impact and vibratory piledriving will only be allowed on the plant Site when Contractor can demonstrate there is no other means to accomplish the Work.

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- D. Equipment that uses a two-stroke diesel engine will not be allowed to be used onsite at any time.
- E. Any construction equipment that is to be used onsite and has an audible warning shall utilize ambient noise sensing, white noise generating technology for backup or movement alarms. Monotone backup or movement alarms shall be immediately changed or disabled. If Contractor chooses to disable an audible alarm, alternative methods to warn employees, as allowed by OSHA regulations, shall be used. Aerial lifts and other equipment that have movement alarms shall be operated so the alarm is sounding only when the piece of equipment is in motion.
- F. Construction equipment shall not be started before 7:00 a.m. Any activity that generates noise outside of any building or enclosure shall not be started before 7:00 a.m. These restrictions do not apply to work that is specified to occur outside of normal working hours such as the tie in of new work to existing facilities.
- G. Equipment shall not be allowed to sit idling for more than 5 minutes. Equipment that is not in use for more than 5 minutes shall be shut down until needed.
- H. Electronic devices that amplify sound, such as a “boom box” or portable radio, will not be allowed to be operated at a sound level that is audible outside of the immediate work area or a distance of 25 feet, whichever is less.
- I. Contractor vehicles or privately-owned vehicles used by contractor staff that are excessively loud as determined by the RPR will be prohibited from the Site. This may include vehicles that might otherwise meet noise regulations but are found by the Owner to be causing a disturbance.
- J. Contractor shall not allow any unmuffled exhaust brakes to be used on NW McCann Road, plant access road, or plant Site.

3.04 LIGHTING

- A. Contractors may use temporary lighting such as portable lights or lights mounted on equipment during winter months when Work will be starting or ending outside of daylight hours. Contractor shall place the temporary lighting to focus the light on Site and reduce the light glare on the surrounding neighbors.
- B. Temporary lighting shall be turned off at the end of the work shift unless required for the safety of plant staff.

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3.05 DUST AND EMISSIONS

- A. All off road construction diesel equipment operating on Site shall use ultra-low sulfur fuel, be in good working order, and shall comply with current emissions standards as applicable to new and used off-road diesel equipment and fuel.
- B. Contractor shall prevent mud and debris from being tracked onto the plant access road or the public roads by vehicles and trucks leaving the treatment plant Site. Haul trucks leaving the Site shall be cleaned of any material that might fall off as the truck is moving.
- C. Contractor shall immediately clean up debris that has fallen from its haul trucks on NW McCann Road. The traffic calming speed humps have caused material to fall from improperly loaded trucks in the past.
- D. Contractor shall sweep the plant Site pavement, plant access road, and public roads if tracking occurs. This includes NW McCann Road to the intersection with NW 36th Avenue. Contractor shall sweep the plant Site pavement that is used by any construction vehicle or equipment daily if necessary because of Contractor activities. Use vacuum equipped sweeping equipment to reduce dust.

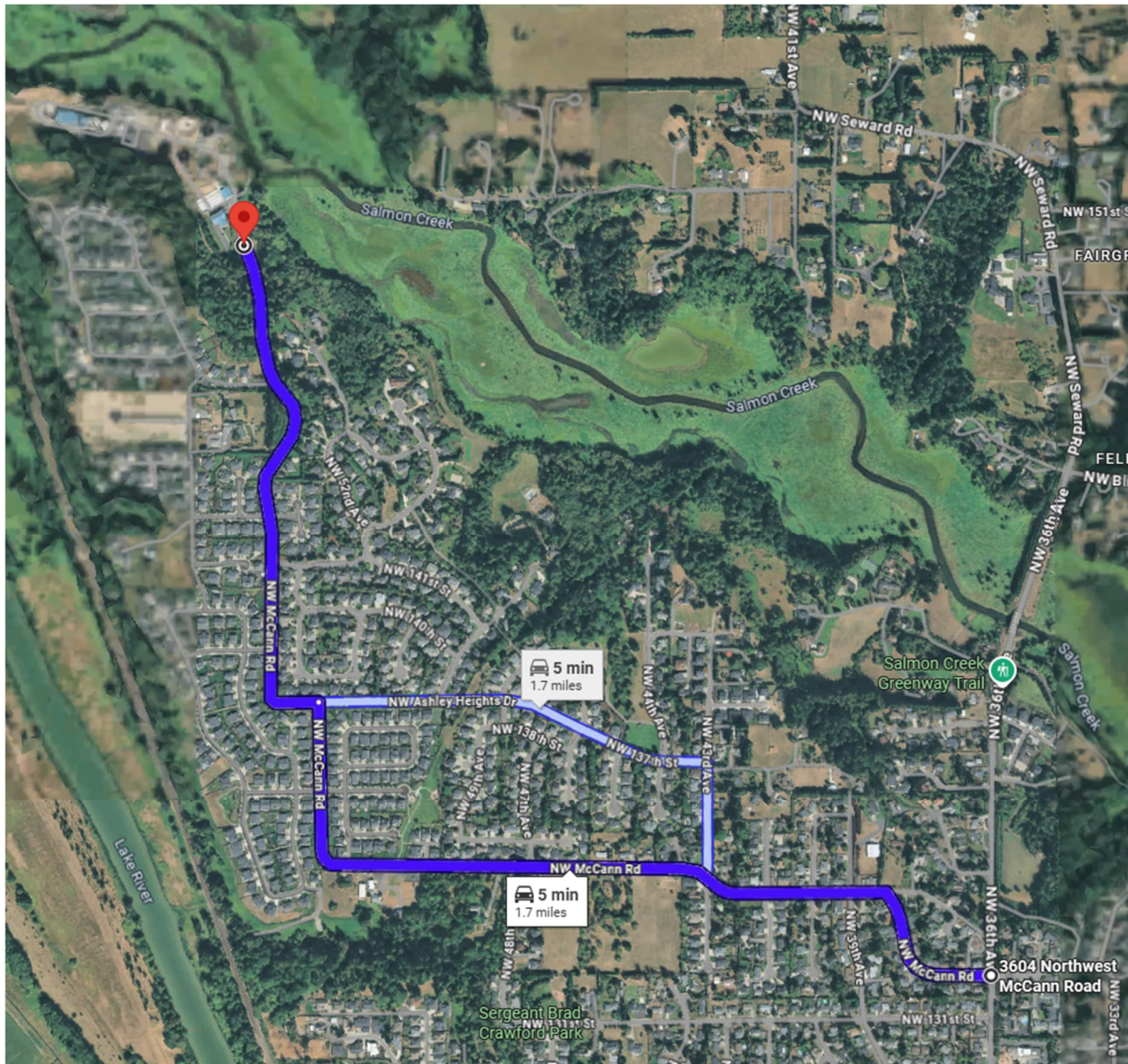
3.06 SUPPLEMENT

- A. The supplement listed below, following “End of Section,” is a part of this specification:
 - 1. Traffic Access to SCTP.

END OF SECTION

SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

TRAFFIC ACCESS TO SCTP



SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 SCOPE

- A. This section specifies the procedures that will be used to administer documents that will be used during construction of the Project to provide information or make changes to the Work. This section only supplements the requirements of the General Conditions. It does not change any of those requirements. Documents that are covered by this section include:
 - 1. Conformed Documents.
 - 2. Requests for Information.
 - 3. Request for Proposal.
 - 4. Work Change Directive (WCD).
 - 5. Field Order (FO).
 - 6. Contractor Requested Change (CRC).
 - 7. Claim.
 - 8. Change Order.
- B. All potential changes to the Contract Price or Contract Times will be administered using the Change Control Form included as a Supplement at the end of this section as described below.
- C. Documents required by this section will be transmitted by the Contractor to the Engineer electronically using an Internet-based project management software package. Access to and the use of this site will be provided at no cost to the Contractor. Documents will be returned to the Contractor electronically using the same site.

SALMON CREEK TREATMENT PLANT
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1.02 DESCRIPTION

- A. Conformed Documents: The Contract Drawings and Specifications may be revised by the Engineer to reflect the changes made by Addendum during the Bid period. This will be considered the Conformed Documents. The Owner will provide copies of these Conformed Documents to the Contractor in accordance with the General Conditions, Paragraph 2.02, Copies of Documents. The Contractor shall inspect them to confirm they accurately reflect the changes made by Addendum and will notify the Engineer if any discrepancies are found. These Conformed Documents are being provided to assist the Contractor in ensuring the documents used during construction reflect the changes made during the bidding period. The Conformed Documents do not change or amend the Contract and are not considered Contract Documents. The Contract Documents as defined by the General Conditions will be used to resolve any dispute that may arise during the course of the Project.
- B. Request for Information: The Contractor may request interpretation or clarification of the Contract Documents during the construction of the Project. These requests will be made using the Request for Information (RFI) form included as a supplement at the end of this section. This RFI form will also be used when the Owner, Resident Project Representative (RPR), and Engineer need information from the Contractor. The request section of the form will be filled out by the party initiating the request. It will be sent to the RPR. The RPR will distribute it to the appropriate party for a written response. The written response will be returned to the RPR who will distribute copies. If the response to an RFI causes a change to the contract the RPR shall be notified. If the RPR concurs a Change Control Form will be issued requesting a proposal for the change from the Contractor. A copy of the Change Control (CC) Form is included as a supplement to this section.
- C. Request for Proposal: As described below.
- D. Work Change Directive: As described below.
- E. Field Order: A Field Order (FO) is defined in the General Conditions. Field Orders will be prepared by the RPR using the CC Form and will be issued to the Contractor through by the RPR. A Field Order is to be used for supplemental instructions and minor changes not involving a change in the Contract Price or Contract Time. The Contractor shall promptly notify the RPR if he believes the minor changes covered by the FO will involve a change to the Contract Price or Contract Times.

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- F. Contractor Requested Change: If the Contractor wants to propose the use of a Substitute Item, as defined in the General Conditions, or to suggest a change to the contract it shall be done using the CC Form submitted with the documentation required by General Conditions, Paragraph 7.05 for Substitute Items. The request will be issued to the RPR and will be assigned a CC Form reference number. The Contractor shall provide documentation describing the change and the cost or credit being proposed. The RPR, Engineer and Owner will consider the changes being suggested and will provide a written decision to the Contractor.

1.03 PROPOSAL REQUESTS

- A. Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor to prepare a detailed proposal of cost and times to perform contemplated change.
- B. Proposal request will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project.
- C. Proposal request is for information only; Contractor is neither authorized to execute proposed change nor to stop Work in progress as result of such request.
- D. Contractor's written proposal shall be transmitted to Engineer promptly, but not later than 14 days after Contractor's receipt of Owner's written request. Proposal shall remain firm for a maximum period of 45 days after receipt by Engineer.
- E. Owner's request for proposal and Contractor's response shall not be considered a Change Order Proposal or Claim as defined in the Contract Documents.

1.04 CLAIMS

- A. Claim: A Claim is defined in the General Conditions. Claims can be prepared by either the Owner or the Contractor and will be delivered to the Resident Project Representative (RPR) using the Change Control (CC) Form. The RPR will assign a reference number to the CC Form.

SALMON CREEK TREATMENT PLANT
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B. Include, at a minimum:

1. Specific references, including (i) Drawing numbers, (ii) Specification section and article/paragraph number, and (iii) Submittal type, Submittal number, date reviewed, Engineer's comment, as applicable, with appropriate attachments.
2. Stipulated facts and pertinent documents, including photographs and statements.
3. Interpretations relied upon.
4. Description of (i) nature and extent of Claim, (ii) who or what caused the situation, (iii) impact to the Work and work of others, and (iv) discussion of claimant's justification for requesting a change to price or times or both.
5. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification.
6. Requested Change in Contract Times: Include at least (i) Progress Schedule documentation showing logic diagram for request, (ii) documentation that float times available for Work have been used, and (iii) revised activity logic with durations including sub-network logic revisions, duration changes, and other interrelated schedule impacts, as appropriate.
7. Documentation as may be necessary as set forth below for Work Change Directive, and as Engineer may otherwise require.

1.05 WORK CHANGE DIRECTIVES

A. Procedures:

1. Engineer will:
 - a. Initiate, including a description of the Work involved and any attachments.
 - b. Affix signature, demonstrating Engineer's recommendation.
 - c. Transmit one original to Owner for authorization.
2. Owner will:
 - a. Affix signature, demonstrating approval of the changes involved.
 - b. Return one copy to Engineer, who will retain one copy; send one copy to the Resident Project Representative or other field representative; and forward one copy to Contractor.
3. Upon completion of Work covered by the Work Change Directive or when final Contract Times and Contract Price are determined, Contractor shall submit documentation for inclusion in a Change Order.

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4. Contractor's documentation shall include but not be limited to:
 - a. Appropriately detailed records of Work performed to enable determination of value of the Work.
 - b. Full information required to substantiate resulting change in Contract Times and Contract Price for Work. On request of Engineer, provide additional data necessary to support documentation.
 - c. Support data for Work performed on a unit price or Cost of the Work basis with additional information such as:
 - 1) Dates Work was performed, and by whom.
 - 2) Time records, wage rates paid, and equipment rental rates.
 - 3) Invoices and receipts for materials, equipment, and subcontracts, all similarly documented.

B. Effective Date of Work Change Directive: Date of signature by Owner, unless otherwise indicated thereon.

1.06 CHANGE ORDERS

A. Procedure:

1. Engineer will prepare one original of proposed Change Order and transmit such with Engineer's written recommendation and request to Contractor for signature.
2. Contractor shall, upon receipt, either: (i) promptly sign original, retaining one copy for its file, and return original to Engineer for Owner's signature, or (ii) return unsigned original with written justification for not executing Change Order.
3. Engineer will, upon receipt of Contractor signed original, promptly forward Engineer's written recommendation and partially executed original for Owner's signature, or if Contractor fails to execute the Change Order, Engineer will promptly so notify Owner and transmit Contractor's justification to Owner.
4. Upon receipt of Contractor-executed Change Order, Owner will promptly either:
 - a. Execute Change Order, retaining original for its file and returning one copy to Engineer.
 - b. Return to Engineer unsigned copies with written justification for not executing Change Order.
5. Upon receipt of Owner-executed Change Order, Engineer will transmit one copy to Contractor, one copy to Resident Project Representative or other field representative, and retain one copy, or if Owner fails to execute the Change Order, Engineer will promptly so notify Contractor and transmit Owner's justification to Contractor.

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6. Upon receipt of Owner-executed Change Order, Contractor shall:
 - a. Perform Work covered by Change Order.
 - b. Revise Schedule of Values to adjust Contract Price and submit with next Application for Payment.
 - c. Revise Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by change.
 - d. Enter changes in Project record documents after completion of change related Work.
- B. In signing a Change Order, Owner and Contractor acknowledge and agree that:
 1. Stipulated compensation (Contract Price or Contract Times, or both) set forth includes payment for (i) the Cost of the Work covered by the Change Order, (ii) Contractor's fee for overhead and profit, (iii) interruption of Progress Schedule, (iv) delay and impact, including cumulative impact, on other Work under the Contract Documents, and (v) extended overheads.
 2. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
 3. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.07 COST OF THE WORK

- A. In determining the supplemental costs allowed for rental equipment and machinery in the General Conditions, the following will apply.
- B. Rental of construction equipment and machinery and the parts thereof having a replacement value in excess of \$1,000, whether owned by Contractor or rented or leased from others, shall meet the following requirements:
 1. Full rental costs for leased equipment shall not exceed rates listed in the equipment rental rates submitted by Contractor, as adjusted to the regional area of the Project. Owned equipment costs shall not exceed the single shift rates established in the equipment rental rates submitted by Contractor.
 2. Rates shall apply to equipment in good working condition. Equipment not in good condition, or larger than required, may be rejected by Engineer, or accepted at reduced rates.

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3. Leased Equipment:
 - a. For equipment leased or rented in arm's length transactions from outside vendors, maximum rates shall be determined by the following actual usage/payment category:
 - 1) Less than 8 Hours: Hourly rate.
 - 2) 8 or More Hours but Less than 7 Days: Daily rate.
 - 3) 7 or More Days but Less than 30 Days: Weekly rate.
 - 4) 30 days or More: Monthly rate.
4. Arm's length rental and lease transactions are those in which the firm involved in the rental or lease of equipment is not associated with, owned by, have common management, directorship, facilities and/or stockholders with the firm renting the equipment.
5. Financial arrangements associated with rental and lease transactions that provide Contractor remuneration or discounts not visible to the Owner must be disclosed and integrated with charged rates.
6. Leased Equipment in Use: Actual equipment use time documented by Engineer shall be the basis that equipment was on and utilized at the Project Site. In addition to the leasing rate above, equipment operational costs shall be paid at the estimated hourly operating cost rate set forth in the equipment rental rates submitted by Contractor if not already included in the lease rate. Hours of operation shall be based upon actual equipment usage to the nearest quarter hour, as recorded by Engineer.
7. Leased Equipment, When Idle (Standby): Idle or standby equipment is equipment onsite or in transit to and from the Work Site and necessary to perform the Work under the modification, but not in actual use. Idle equipment time, as documented by Engineer, shall be paid at the leasing rate determined above, excluding operational costs.
8. Owned and Other Equipment in Use: Equipment rates for owned equipment or equipment provided in other than arm's length transaction shall not exceed the single shift total hourly costs rate developed in accordance with the equipment rental rates submitted by Contractor and as modified herein for multiple shifts. This total hourly rate will be paid for each hour the equipment actually performs work. Hours of operation shall be based upon actual equipment usage as recorded by Engineer. This rate shall represent payment in full for Contractor's direct costs.

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9. Owned and Other Equipment, When Idle (Standby): Equipment necessary to be onsite to perform the Work on single shift operations, but not utilized, shall be paid for at the ownership hourly expense rate, provided its presence and necessity onsite has been documented by Engineer. Payment for idle time of portions of a normal workday, in conjunction with original contract Work, will not be allowed. In no event shall idle time claimed in a day for a particular piece of equipment exceed the normal Work or shift schedule established for the Project. It is agreed that this rate shall represent payment in full for Contractor's direct costs. When Engineer determines that the equipment is not needed to continuously remain at the Work Site, payment will be limited to actual hours in use.
10. Owned and Other Equipment, Multiple Shifts: For multiple shift operations, the single shift total hourly costs rate shall apply to the operating equipment during the first shift. For subsequent shifts, up to two in a 24-hour day, operating rate shall be the sum of the total hourly operating cost and 60 percent of the ownership and overhaul expense. Payment for idle or standby time for second and third shifts shall be 20 percent of the ownership and overhaul expense.
11. When necessary to obtain owned equipment from sources beyond the Project limits, the actual cost to transfer equipment to the Site and return it to its original location will be allowed as an additional item of expense. Move-in and move-out allowances will not be made for equipment brought to the Project if the equipment is also used on original Contract or related Work.
12. If the move-out destination is not to the original location, payment for move-out will not exceed payment for move-in.
13. If move is made by common carrier, the allowance will be the amount paid for the freight. If equipment is hauled with Contractor's own forces, rental will be allowed for the hauling unit plus the hauling unit operator's wage. If equipment is transferred under its own power, the rental will be 75 percent of the appropriate total hourly costs for the equipment, without attachments, plus the equipment operator's wage.
14. Charges for time utilized in servicing equipment to ready it for use prior to moving and similar charges will not be allowed.
15. When a breakdown occurs on any piece of owned equipment, payment shall cease for that equipment and any other owned equipment idled by the breakdown.
16. If any part of the Work is shut down by Owner, standby time will be paid during nonoperating hours if diversion of equipment to other Work is not practicable. Engineer reserves the right to cease standby time payment when an extended shutdown is anticipated.

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17. If a rate has not been established in the equipment rental rates submitted by Contractor for owned equipment, Contractor may:
 - a. If approved by Engineer, use the rate of the most similar model found, considering such characteristics as manufacturer, capacity, horsepower, age, and fuel type, or
 - b. Request Engineer to establish a rate.

1.08 FIELD ORDER

- A. Engineer will issue Field Orders, with three copies to Contractor.
- B. Effective date of the Field Order shall be the date of signature by Engineer, unless otherwise indicated thereon.
- C. Contractor shall acknowledge receipt by signing and returning one copy to Engineer.
- D. Field Orders will be incorporated into subsequent Change Orders, as a no-cost change to the Contract.

1.09 SUPPLEMENTS

- A. The supplements listed below, following “End of Section,” are a part of this specification:
 1. Change Control Form.
 2. Request for Information.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

CHANGE CONTROL FORM

Owner:		Project :	
Contractor:		Date:	CC#
Originator: ☐ Owner ☐ RPR ☐ Engineer ☐ Contractor			
This Document is a: ☐ Request for Proposal ☐ Work Change Directive ☐ Field Order ☐ Contractor Requested Change ☐ Claim			
Description of Change			
Request for Proposal/Contractor Requested Change/Claim			
We propose to perform the Work or make the Claim described above for the following change in Contract Cost and Contract Times:			
	Cost	Time (Days)	
Add / Deduct (Circle One)	\$		
Proposed by:		Date:	
RPR Signature ☐ Recommends Acceptance ☐ Recommends Rejection		Date:	
Owner Signature ☐ Accepts Proposal ☐ Rejects Proposal		Date:	
Work Change Directive			
You are directed to proceed to make the changes to the Work described in this Work Change Directive. Any change in Contract Price or Contract Time will be determined in accordance with the General Conditions.			
Recommended by RPR:		Date:	
Authorized by Owner:		Date:	
Accepted by Contractor:		Date:	
Field Order			
This Field Order issued in accordance with the General Conditions for minor changes in the Work without changes in the Contract Price or Contract Time. If you consider that a change in Contract Price or Contract Times is required, notify the Resident Project Representative immediately and before proceeding with the Work.			
Directed by RPR:		Date:	
Accepted by Contractor:		Date:	

REQUEST FOR INFORMATION

[illegible]

SECTION 01 29 00
PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Schedule of Values: Submit on Contractor's standard form.
2. Schedule of Estimated Progress Payments: Submit with initially acceptable Schedule of Values.
3. Application for Payment in Owner's standard format.
4. Final Application for Payment.
5. Weekly Certified Payrolls (US Dept. of Labor Form WH347 (Davis-Bacon and Related Acts Weekly Certified Payroll Form) may be used).

1.02 SCHEDULE OF VALUES

- A. Prepare a separate Schedule of Values for each schedule of the Work under the Agreement.**
- B. Upon request of Engineer, provide documentation to support the accuracy of the Schedule of Values.**
- C. Lump Sum Work:**
1. List bonds and insurance premiums, mobilization, demobilization, preliminary and detailed progress schedule preparation, equipment testing, facility startup, preparation of preliminary and final operations and maintenance manuals, preparation and submittal of record drawings, and contract closeout separately.
 2. Break down by Division 02 through Division 49.
- D. An unbalanced or front-end loaded schedule will not be acceptable.**
- E. Summation of the complete Schedule of Values representing all the Work shall equal the Contract Price.**
- F. Submit Schedule of Values electronically, in a spreadsheet format compatible with latest version of MS Excel.**

SALMON CREEK TREATMENT PLANT
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1.03 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times aggregating initial Contract Price.
- B. Base estimated progress payments on initially acceptable progress schedule. Adjust to reflect subsequent adjustments in progress schedule and Contract Price as reflected by modifications to the Contract Documents.

1.04 APPLICATION FOR PAYMENT

- A. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment for each schedule and include Request for Payment of Materials and Equipment on Hand as applicable. Execute certification by authorized officer of Contractor.
- B. Use detailed Application for Payment Form suitable to Engineer.
- C. Provide separate form for each schedule as applicable.
- D. Include accepted Schedule of Values for each schedule or portion of lump sum Work and the unit price breakdown for the Work to be paid on a unit priced basis.
- E. Include separate line item for each Change Order and Work Change Directive executed prior to date of submission. Provide further breakdown of such as requested by Engineer.
- F. Preparation:
 - 1. Round values to nearest dollar.
 - 2. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form(s) for each schedule as applicable, a listing of materials on hand for each schedule as applicable, and such supporting data as may be requested by Engineer.
- G. Certified Payrolls: Each Application for Payment shall include Certified Payrolls for the Contractor and all subcontractors who provided labor on the Site that month. Subcontractor certified payrolls must be for the same time period as the Application for Payment.

SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

1.05 PAYMENT

- A. Payment for all Lump Sum Work shown or specified in Contract Documents is included in the Contract Price. Payment will be based on a percentage complete basis for each line item of the accepted Schedule of Values.

1.06 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
 - 1. Loading, hauling, and disposing of rejected material.
 - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 - 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
 - 4. Material not unloaded from transporting vehicle.
 - 5. Defective Work not accepted by Owner.
 - 6. Material remaining on hand after completion of Work.

1.07 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial payment for materials and equipment, for which a preliminary Operation and Maintenance Manual, a final Operation and Maintenance Manual, and Manufacturers' Services are specified will be made as follows:
 - 1. No partial payment greater than 85 percent of the Schedule of Values amount will be made for material and equipment stored or installed unless the preliminary Operation and Maintenance Manual has been submitted and accepted by the Engineer.
 - 2. No partial payment greater than 90 percent of the invoiced cost will be made for material and equipment stored or installed unless the final Operation and Maintenance Manual has been submitted and accepted by the Engineer.
 - 3. No partial payment greater than 95 percent of the invoiced cost will be made for material and equipment stored or installed unless the Manufacturer's Services have been provided and accepted by the Engineer.
- B. Final Payment: Will be made only for products incorporated in Work; remaining products, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

1.08 PARTIAL PAYMENT FOR UNDELIVERED, PROJECT-SPECIFIC
MANUFACTURED OR FABRICATED EQUIPMENT

- A. Payment of 5 percent of manufacturer's quoted price for undelivered, Project-specific manufactured equipment will be made following Shop Drawing approval.

1.09 SUPPLEMENT

- A. The supplement listed below, following "End of Section," is a part of this specification:
 - 1. District Reportable Expense Template.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION



SALMON CREEK TREATMENT PLANT UV SYSTEM REPLACEMENT

Contract # 93-2023-0048
PC20-96103-043

Warrant Amount _____

Name SCTP UV System Replacement

From Date _____

☐ **No Expenses to Report**
(do not complete grid below)

To Date _____

Contractor Total	
Subcontractor Total	
Sub Subcontractor Total	-

Enter the UBI of the organization that paid the expense	Enter the name of the Organization that paid the expense.	Contractor Types: Subcontractor Sub Subcontractor	Enter the UBI of the organization that was paid. Look up a UBI here: https://secure.dor.wa.gov/gteunauth/_/#1	Enter the name of the Organization that was paid.	Org Types: For Profit Non-Profit Government Tribe	Expense Types: Construction Goods Services	Enter the amount paid for this invoice period.

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SECTION 01 31 13
PROJECT COORDINATION

PART 1 GENERAL

1.01 DEFINITIONS

- A. Flow Control: Procedure and method to reduce or eliminate flow in a downstream basin to a level adequate for proper dewatering and to allow downstream basin to be taken off line and modified.

1.02 SUBMITTALS

- A. Informational:
 - 1. Statement of Qualification (SOQ) for land surveyor or civil engineer.
 - 2. Preconstruction photographs and other preconstruction documentation.
 - 3. Videotape survey, photographs, and other data for the preconstruction conditions shall be submitted to the Engineer for record purposes prior to, but not more than 3 weeks before, commencement of any construction activities.
 - 4. A complete set of all photographs and survey data of the post construction conditions shall be completed and submitted prior to final inspection by the Owner and Engineer.
 - 5. Temporary supports and anchoring required.
 - 6. Operating procedures.
 - 7. Functional test reports.
 - 8. Performance test reports.

1.03 RELATED WORK AT SITE

- A. General:
 - 1. Other work that is either directly or indirectly related to scheduled performance of the Work under these Contract Documents, listed henceforth, is anticipated to be performed at Site by others.
 - 2. Miscellaneous repair and replacement projects are expected to be underway at the Site throughout 2025 through 2027.
 - 3. The SCTP Dewatering Equipment Replacement Project and the SCTP Biosolids Hopper Repair Project will be occurring during 2026 through 2027. Work will occur at Facility 72 Solids Processing Center located to the south of Facility 55 Effluent Pump Station and UV Disinfection.

SALMON CREEK TREATMENT PLANT
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4. The SCTP Digester Gas Hydrogen Sulfide Reduction Project will be occurring during 2026 and possibly 2027. Work will occur at Facility 73 Anaerobic Digesters, and Facility 72 Solids Processing Center, including Site roadways.
5. The SCTP Digester Tank Cleaning Project may be occurring in 2026 and possibly 2027. Work will occur at Facility 73 Anaerobic Digesters, including Site roadways.
6. The SCTP Operations Center HVAC Replacement Project will be occurring in 2026. Work will occur at Facility 85 Operations Center.
7. The SCTP Well House Building 6 Project may be occurring in 2026. Work will occur at existing well house and other sites at east end of the facility including Facility 85 Operations Center.
8. The SCTP Influent Flow Meter Replacement Project will be occurring in 2026. Work will near lower Site entrance gate, and existing roadways, at east end of the facility.
9. Coordinate the Work of these Contract Documents with work of others as specified in General Conditions.
10. Include sequencing constraints specified in Section 01 31 15, Construction Sequencing and Constraints, as a part of Progress Schedule.

B. Power:

1. Agency and Contact Person: Clark Public Utilities, Zeecha Van Hoose, telephone number (360) 992-3118.
2. Work to be Performed by Clark Public Utilities: No work requirements are anticipated from Clark Public Utilities.
3. Work to be Performed by Contractor:
 - a. Coordinate Contractor's Work with Clark Public Utilities.
 - b. As indicated.

C. Applications Software Development: Engineer will perform programming of applications software for certain portions of Process Instrumentation and Control Subsystem.

1. Owner will provide Engineer with office hardware and standard software components, as specified for PICS.
2. Sequencing: Contractor shall include sequencing constraints specified in Section 01 31 15, Construction Sequencing and Constraints, as part of Contractor's Progress Schedule.

SALMON CREEK TREATMENT PLANT
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3. Allowance for interruptions to the Work because of testing by Engineer of Engineer Developed Applications Software:
 - a. During Functional Testing and Performance Testing, Contractor shall plan for interruption of testing of the Work to allow Engineer to investigate software problems, make software configuration changes, and conduct additional testing.
 - b. When applications software testing is delayed as a result of altered equipment interfaces or receipt of incorrect Shop Drawing information, duration of delay will be excluded from interruption allowance, unless notified otherwise by Engineer.

1.04 UTILITY NOTIFICATION AND COORDINATION

- A. Coordinate the Work with various utilities within Project limits. Notify applicable utilities prior to commencing Work, if damage occurs, or if conflicts or emergencies arise during the Work.

1.05 PROJECT MILESTONES

- A. General: Include the Milestones specified herein as a part of the Progress Schedule required under Section 01 32 00, Construction Progress Documentation. For detailed description of project milestones, see Section 01 31 15, Construction Sequencing and Constraints.

1.06 FACILITY OPERATIONS

- A. Continuous operation of Owner's facilities is of critical importance. Schedule and conduct activities to enable existing facilities to operate continuously, unless otherwise specified.
- B. Perform Work continuously during critical connections and changeovers, and as required to prevent interruption of Owner's operations.
- C. When necessary, plan, design, and provide various temporary services, utilities, connections, temporary piping and heating, access, and similar items to maintain continuous operations of Owner's facility.
- D. Do not close lines, open or close valves, or take other action which would affect the operation of existing systems, except as specifically required by the Contract Documents and after authorization by Owner and Engineer. Such authorization will be considered within 48 hours after receipt of Contractor's written request.

SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

- E. Do not proceed with Work affecting a facility's operation without obtaining Owner's and Engineer's advance approval of the need for and duration of such Work.
- F. Relocation of Existing Facilities:
 - 1. During construction, it is expected that minor relocations of Work will be necessary.
 - 2. Provide complete relocation of existing structures and Underground Facilities, including piping, utilities, equipment, structures, electrical conduit wiring, electrical duct bank, and other necessary items.
 - 3. Use only new materials for relocated facility. Match materials of existing facility, unless otherwise shown or specified.
 - 4. Perform relocations to minimize downtime of existing facilities.

1.07 ADJACENT FACILITIES AND PROPERTIES

- A. Examination:
 - 1. After Effective Date of the Agreement and before Work at Site is started, Contractor, Engineer, and affected property owners and utility owners shall make a thorough examination of pre-existing conditions including existing buildings, structures, and other improvements in vicinity of Work, as applicable, which could be damaged by construction operations.
 - 2. Periodic reexamination shall be jointly performed to include, but not limited to, cracks in structures, settlement, leakage, and similar conditions.
- B. Documentation:
 - 1. Record and submit documentation of observations made on examination inspections in accordance with Article Construction Photographs.
 - 2. Upon receipt, Engineer will review, sign, and return one record copy of documentation to Contractor to be kept on file.
 - 3. Such documentation shall be used as indisputable evidence in ascertaining whether and to what extent damage occurred as a result of Contractor's operations, and is for the protection of adjacent property owners, Contractor, and Owner.

1.08 CONSTRUCTION PHOTOGRAPHS

A. General:

1. Photographically document all phases of the Project including preconstruction, construction progress, and post-construction.
2. Engineer shall have right to select subject matter and vantage point from which photographs are to be taken.
3. Digital Images: No post-session electronic editing of images is allowed. Stored image shall be actual image as captured without cropping or other edits.

B. Preconstruction and Post-Construction:

1. After Effective Date of the Agreement and before Work at Site is started, and again upon issuance of Substantial Completion, take a minimum of forty-eight photographs of Site and property adjacent to perimeter of Site.
2. Particular emphasis shall be directed to structures both inside and outside the Site.
3. Format: Digital, minimum resolution of 3200 pixels by 2400 pixels and 24-bit, millions of color.

C. Construction Progress Photos:

1. Photographically demonstrate progress of construction, showing every aspect of Site and adjacent properties as well as interior and exterior of new or impacted structures.
2. Monthly: Take a minimum of fifty photographs using digital, minimum resolution of 3200 pixels by 2400 pixels and 24-bit, millions of color.

D. Documentation:

1. Digital Images:
 - a. Electronic image shall have date taken embedded into image.
 - b. Use a commercially available photo management system that provides capability to write keywords or tags, narrative description, and location or process area to the Exchangeable Image File Format (EXIF) fields of the photos .jpg file and is compatible with the latest version of Photoshop Elements. Use building, level, room number, and discipline (such as, structural, plumbing) convention from Project Drawings. Adobe Photoshop Elements (any version) is one software package that will meet these requirements.

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- c. Label each photo disk with Project and Owner's name, and month and year images were produced.
- E. Deliverables: Submit photos electronically through FTP site to Engineer's onsite representative, with a record of submittal in the Electronic Project Documentation system.

1.09 REFERENCE POINTS AND SURVEYS

- A. Owner has established horizontal reference points or coordinate system with bench marks and reference points for Contractor's use as necessary to lay out Work.
- B. Location and elevation of benchmarks are shown on the Drawings.
- C. Contractor's Responsibilities:
 - 1. Provide additional survey and layout required to layout the Work.
 - 2. Check and establish exact location of existing facilities prior to construction of new facilities and any connections thereto.
 - 3. In event of discrepancy in data or staking provided by Owner, request clarification before proceeding with Work.
 - 4. Retain professional land surveyor or civil engineer registered in state of Washington who shall perform or supervise engineering surveying necessary for additional construction staking and layout.
 - 5. Maintain complete accurate log of survey work as it progresses as a Record Document.
 - 6. On request of Engineer, submit documentation.
 - 7. Provide competent employee(s), tools, stakes, and other equipment and materials as Engineer may require to:
 - a. Establish control points, lines, and easement boundaries.
 - b. Check layout, survey, and measurement work performed by others.
 - c. Measure quantities for payment purposes.
 - 8. Notify RPR 24 hours in advance of covering any pipe, valve, or appurtenance to allow Owner to take a geographic positioning system (GPS) location of the Work.

1.10 ELECTRONIC DOCUMENT MANAGEMENT SYSTEM

- A. The Owner and Contractor shall utilize an Electronic Construction Management (ECM) system for electronic submittal of all data and documents throughout the duration of the Contract. This ECM will be made available to Contractor. The joint use of this system is to facilitate electronic exchange of information. ECM shall be the primary means of Project information

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submission and management. When required by the Owner's Representative, paper documents shall also be provided. In the event of discrepancy between the electronic version and paper documents the paper documents will govern.

B. User Access Limitations:

1. The Owner's Representative will control the Contractor's access to ECM by allowing access and assigning user profiles to accepted Contractor personnel.
2. Joint Ownership of Data: Data entered in a collaborative mode (entered with the intent to share as determined by permissions and workflows within the ECM system) by the Owner's Representative and the Contractor will be jointly owned.

C. Automated System Notification and Audit Log Tracking: Review comments made (or lack thereof) by the Owner on Contractor submitted documentation shall not relieve the Contractor from compliance with requirements of the Contract Documents. The Contractor is responsible for managing, tracking, and documenting the Work to comply with the requirements of the Contract Documents. Owner's acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation and does not constitute validation of the Contractor's submitted information.

D. Submittals: See Section 01 33 00, Submittal Procedures.

E. Computer Requirements: The Contractor shall use computer hardware and software that meets the requirements of the ECM system. The Contractor will ensure that connectivity to the ECM system (whether at the home office or Job Site) is accomplished through DSL, cable, T-1, or wireless communications systems. ECM shall be accessed with commercially available web browser such as Mozilla's Firefox, or Apple's Safari, or Microsoft's Internet Explorer, or Google Chrome.

F. Contractor Responsibility: The Contractor shall be responsible for the validity of their information placed in ECM and for the abilities of their personnel. Accepted users shall be knowledgeable in the use of computers, including Internet browsers, e-mail programs, and Adobe Portable Document Format (PDF) document distribution program. Adobe PDF documents shall be created through electronic conversion rather than optically scanned whenever possible. The Contractor is responsible for the training of their personnel in the use of ECM (outside what is provided by the Owner) and the other programs indicated above as needed.

G. User Access Administration: Provide a list of Contractor's key ECM personnel for the Owner's Representative acceptance.

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- H. Connectivity Problems: ECM is a web-based environment and therefore subject to the inherent speed and connectivity problems of the Internet. Contractor is responsible for its own connectivity to the Internet. ECM response time is dependent on the Contractor's equipment, including processor speed and Internet access speed, and current traffic on the Internet. Owner will not be liable for any delays associated from the usage of ECM including, but not limited to, slow response time, downtime periods, connectivity problems, or loss of information. Contractor will ensure that connectivity to the ECM system (whether at the home office or Job Site) is accomplished through DSL, cable, T-1, or wireless communications systems. Under no circumstances shall the usage, of the ECM be grounds for a time extension or cost adjustment to the Contract.
- I. Training:
 - 1. Owner has arranged for the following training to be provided to the Contractor:
 - a. Up to two training sessions will be offered for Contractor and Subcontractor personnel to be coordinated at a time arranged by Contractor with Owner's Representative within 21 days of Notice to Proceed. Contractor participation in training is strongly encouraged and shall be considered incidental to the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SALVAGE OF MATERIALS

- A. Materials to be Salvaged:
 - 1. Salvage and potential reuse as shown and as specified.
 - 2. See Section 02 41 00, Demolition.

3.02 CUTTING, FITTING, AND PATCHING

- A. Cut, fit, adjust, or patch Work and work of others, including excavation and backfill as required, to make Work complete.
- B. Obtain prior written authorization of Engineer before commencing Work to cut or otherwise alter:
 - 1. Structural or reinforcing steel, structural column or beam, elevated slab, trusses, or other structural member.
 - 2. Existing pipe.

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3. Weather-resistant or moisture-resistant elements.
 4. Efficiency, maintenance, or safety of element.
 5. Work of others.
- C. Refinish surfaces to provide an even finish.
1. Refinish continuous surfaces to nearest intersection.
 2. Refinish entire assemblies.
 3. Finish restored surfaces to such planes, shapes, and textures that no transition between existing work and the Work is evident in finished surfaces.
- D. Restore existing work, Underground Facilities, and surfaces that are to remain in completed Work including concrete-embedded piping, conduit, and other utilities as specified and as shown on the Drawings.
- E. Make restorations with new materials and appropriate methods as specified for new Work of similar nature; if not specified, use recommended practice of manufacturer or appropriate trade association.
- F. Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces and fill voids.
- G. Remove specimens of installed Work for testing when requested by Engineer.

END OF SECTION

SECTION 01 31 15
CONSTRUCTION SEQUENCING AND CONSTRAINTS

PART 1 GENERAL

1.01 DEFINITIONS

- A. Flow Control: Procedure and method to reduce or eliminate flow in process piping or treatment unit process.

1.02 NOTICE TO PROCEED

- A. Duration and schedule constraints are based on date of Notice to Proceed.

1.03 PROJECT MILESTONES

- A. Generally described in the Agreement Form.

1.04 GENERAL DESCRIPTION OF MILESTONES

- A. Milestone 1 Work:
 - 1. Site development work, including stormwater management.
 - 2. Work at UV Disinfection (Facility 55) and Electrical Building (Facility 83).
 - 3. Milestone 1 Work shall be substantially complete on or before the Milestone 1 Completion Date.
 - 4. Full process use of UV Disinfection (Facility 55) (both new Channel 2 and existing Channel 1 with new equipment in service) is required prior to Milestone 1 Substantial Completion determination.
- B. Milestone 2 Work: Entire Project shall be complete on or before the Milestone 2 Completion Date.

1.05 DETAILED MILESTONE DESCRIPTIONS

- A. In the following descriptions, specific sheet references are intended only to show the location of the facility described. The designation Drawing Number 55 indicates a reference to all sheets in the group with Drawing Numbers 55-XX-XXX. The sheet references will not, in general, include all structural, mechanical, HVAC, plumbing, and electrical drawings, sheets where details and sections are shown, electrical diagrams, Process and Instrumentation Diagrams (P&IDs), and Circuit and Raceway Schedules that are relevant for the facility.

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B. Milestone Descriptions:

1. Milestone 1: Work substantially complete.
 - a. Site Development: Drawing Number 05.
 - b. UV Disinfection: Facility Designation 55. Drawing Number 55.
 - c. Electrical Building: Facility Designation 83, Drawing Number 83.
2. Milestone 2 Work: All Work complete.

1.06 GENERAL WORK SEQUENCING CONSTRAINTS

- A. For the purposes of this Article General Work Sequencing Constraints section and the following Articles Work and Schedule Constraints, and Suggested Work Sequence section, terms, such as “work must be completed” and “completed and in operation” and “in successful operation,” are defined as meeting the terms of “Substantial Completion” and “Partial Substantial Completion,” as defined in the General Conditions and Supplementary Conditions.
- B. The wastewater treatment process must be maintained in full and continuous operation throughout the construction of the Work. This requires that some construction activities be accomplished in a certain sequence. In addition, in many cases this requires that the existing facilities are kept in operation under certain construction constraints. The construction sequence and constraints that are required to maintain the wastewater treatment process are described in the following paragraphs.
- C. A detailed description of the construction work included in each Milestone is provided in Article Detailed Milestone Descriptions. Those descriptions list Project work that must be completed as part of a specific Milestone.
- D. The Suggested Work Sequences described are one way of meeting Project requirements. Other sequences proposed by the Contractor will be considered. For consideration, the alternative proposal shall be prepared in writing and submitted for the Engineer’s review. The description shall identify the sequence to be modified and shall describe the proposed alternative sequence and demonstrate that the alternative sequence will, in the Contractor’s opinion, provide the same results as the Contract-defined sequence. Such a request shall be submitted as an Informational Submittal in accordance with the provisions of Section 01 33 00, Submittal Procedures. The Engineer will be the sole judge of the acceptability of a proposal. The Contractor shall have no basis for claim for change in Contract Price or Contract Times because of rejection of a proposal.
- E. More detailed constraints are given in Article Work and Schedule Constraints below.

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- F. In all of the following paragraphs the word “construct” shall mean, unless specifically limited, that the Contractor shall perform all relevant Site preparation work, provide all required materials and equipment, construct the facility, perform all related startup, testing and applicable training and all other work required for Substantial Completion of the designated facility.

1.07 WORK AND SCHEDULE CONSTRAINTS

- A. Include the following work sequencing constraints in the Progress Schedule:
1. The following constraints on the Work are required to keep the treatment plant in service during construction. Process units include all supporting piping, equipment, electrical, and instrumentation required to operate that process unit. Wet and dry weather periods are defined as:
 - a. “Wet Weather” period is defined November 1 through April 30.
 - b. “Dry Weather” period is defined as May 1 through October 31.
 2. The SCTP Dewatering Equipment Replacement project is anticipated to be occurring simultaneously. The SCTP Biosolids Hopper Repair Project nearby is anticipated to occur simultaneously. Coordinate with SCTP Dewatering Equipment Replacement Contractor for use of and work in plant access road and around Site.
 3. Facility 05 Site Improvements:
 - a. Unless otherwise specified, maintain existing piping in service at all times. Coordinate temporary plant water shutdowns with Owner and Engineer when needed for yard piping work.
 - b. The SCTP Dewatering Equipment Replacement construction is expected to involve work nearby the UV facility at solids facilities and cake storage bunkers.
 - c. Provide continuous open access to all plant roads and cooperate and coordinate with other Contractors on deliveries to avoid conflicts.
 - d. Site civil, site electrical, plant utilities, site surface, and circulation improvements will be conducted throughout the overall construction schedule. During construction, it is Contractor’s responsibility to provide continuous access for plant staff to operate and maintain all operating facilities.
 4. Facility 55 UV Disinfection:
 - a. Removal and salvage of canopy components is required. Remove, store, modify, renovate, and reinstall canopy as indicated on the Drawings.
 - b. Relocation of Plant Effluent Sampler 55M1101 is required. Coordinate timing and location of any temporary installation with Owner.

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- c. Relocation of Plant Effluent pH/temperature probe and transmitter (55AE1250 and 55AIT1250) is required. Coordinate timing and location of any temporary installation with Owner. Perform removal from service, relocation and successful reinstallation and startup of relocated 55AE1250 and 55AIT1250 during a period not to exceed 48 consecutive hours. Owner's documentation of effluent pH and temperature is required by the NPDES permit and Owner is required by Washington Dept. of Ecology to taking manual data readings during the period of time the probe and transmitter are out of service. Provide Owner access to accomplish acquisition of these manual readings which are expected to be performed with portable instrumentation.
- d. Demolition of existing sidewalk around UV Channel 1 equipment control panels and facilities will require careful work to avoid damage to existing equipment. Protect UV Channel 1 control panels and provide temporary supports as required to maintain panels in service in existing locations.
- e. The Work will impede Owner's access to UV Channel 1 equipment, controls, and appurtenances. Provide continuous access (OSHA compliant platforms, temporary stair(s), and railing(s)) around UV Channel 1 and equipment. Provide access with a minimum of 3 feet of clearance in front of UV system control panels.
- f. Provide temporary foot traffic walkway platform along south side of UV Channel 1. This is expected to require fabrication of OSHA compliant custom walkway platform and supports, and handrail. This entire walkway platform is expected to be required to be anchored to existing south side of south concrete UV Channel 1 wall. An existing buried and concrete encased ductbank which is below all or a portion of this walkway will also require support and may impede support of temporary walkway. Coordinate support of temporary walkway and other work. Further, this temporary walkway is expected to limit or impede access to portions of the work including construction of the new UV channel. Engineer knows of no commercially available scaffolding that is suitable for this installation. Access provisions shall be verified and accepted by Resident Project Representative.
- g. The work area for excavation and construction of UV Channel 2 is constrained by existing infrastructure. Provide shoring or other means of protection of existing duct banks, vaults, and structures.
- h. Excavation work near UV Channel 1 must consider existing conduits and duct bank that serve the UV Channel 1 and nearby Effluent Pump Station. Protect conduits in place to maintain UV Channel 1 operations during other construction activities, until

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such time that UV Channel 1 can be decommissioned. If existing conduits and circuits must be disturbed for new construction activities, provide temporary conduit and wiring systems to maintain full UV Channel 1 operability.

- i. Provide new power and conduit circuits to new UV Channel 2.
- j. Existing (2) electrical transformers for UV Channel 1 located in Building 83 are physically located such that they conflict with permanent location for new transformer for UV Channel 2. Transformer for new UV Channel 2 must be temporarily located until Channel 1 improvements are complete, and then relocated to permanent location. See the Drawings. Complete UV Channel 2 transformer relocation to permanent location quickly, not to exceed 48-hour duration, to reduce risk for Owner of equipment not being available for service.
- k. The existing UV Disinfection System in UV Channel 1 shall remain in service at all times until UV Channel 2 and new equipment has satisfactorily completed performance testing and has been accepted by Owner.
- l. Provide divers, as required, for work in influent and effluent portions of UV Channel 1 to install and remove inflatable plugs or temporary bulkheads required to isolate the 48-inch piped connections to upstream end of UV Channel 2 without taking Channel 1 out of service. Bulkheads or plugs must be watertight and remain in place until completion of watertightness testing of Channel 2.
- m. Provide divers, as required, to support installation and later removal of temporary bulkhead(s) against location of Channel 2 48-inch PLE and 6-inch PD drain piping into effluent pump station wet well. One acceptable approach is to install a temporary watertight bulkhead against wall in location where core drilling or saw cutting will occur, then perform core drilling or saw cutting, then install 48-inch PLE and 6-inch PD. Provide temporary plug or other methods to prevent 6-inch PD from conveying water back into UV Channels 1 and 2. Multiple mobilization may be required.
- n. Provide protective measures for all workers, including divers, working in the vicinity of potentially harmful UV radiation from operating UV lamps.
- o. Following acceptance of UV Channel 2 and all associated new equipment, provide bulkheads and stoplogs as applicable to isolate UV Channel 1 and enable demolition of existing equipment located there.
- p. Coordinate with Owner to schedule equipment shutdown(s) needed to access the Channel 1 effluent channel and install the Channel 1 weir gate. The effluent channel will have backwater

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- from the effluent pump station wet well and is expected to require temporary bulkhead installation and dewatering.
- q. Due to Owner's process control needs, Owner may make a written request for Contractor to evacuate operable but offline UV channel to allow Owner to put a UV channel back in service. Upon such notice, Contractor shall immediately, as quickly as possible, and within 1-hour, remove all materials, equipment, debris, and staff from UV channel and barricade all open penetrations to make top deck safe for operator foot traffic. Such a request from Owner will be considered Changed Work, and performed under applicable conditions of the Contract Documents.
 - r. The existing UV equipment installation in UV Channel 1 includes substantial mass concrete fill around the submerged UV equipment "duct" through which water flows. Limit vibrations at adjacent new UV channel and equipment by use of powered, pneumatic and hydraulic hand tools for demolition. Use of equipment-mounted hydraulic hammers or chisels (such as hydraulic hammers mounted to skid steer, tracked or wheeled vehicles) is not allowed.
 - s. UV Channel 2 must remain in service throughout demolition and construction activities in UV Channel 1.
 - t. Replacement of the FV-202 actuator must occur during Dry Weather conditions when operation of the effluent pump station is not required. Coordinate with Owner to determine timing.
5. Facility 78 Biosolids Storage:
- a. Access to the four storage biosolids bays for Owner's loaders and trucks must be maintained throughout construction.
 - b. Owner removes the biosolids from the storage bays from late Spring through fall depending on the weather using truck and trailer haul units. Loading normally performed by Owner will occur on weekdays between 7:00 a.m. and 5:00 p.m. Truck traffic is expected into and around the biosolids bunkers and entire plant road network. October through April, anticipate one truckload per day for 4 days to 5 days per week. May through September, anticipate two to four truckloads per day with intermittent, short periods without truck traffic. SCTP Dewatering Equipment Replacement work by others is anticipated to impact road use. Coordinate with Owner to schedule periods without biosolids truck traffic. Night work or irregular shift work may be required to accomplish Work.

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6. Facility 83 Electrical Building:
 - a. Schedule equipment shutdowns with Owner as necessary to install new electrical distribution equipment such as transformers and panelboards.
 - b. Follow similar constraints to Facility 55 with respect to UV channel operations. One of two UV channels must be operational at all times.
7. Performance Acceptance Testing is described in Section 40 90 01, Instrumentation and Control for Process Systems. Owner's System Integrator's software programming requires up to 6 working days (unless otherwise specified) for testing. Contractor shall allocate 6 working days (unless otherwise specified) in their schedule for each UV System 1 and UV System 2 process startup (12 days total).

1.08 WORK SEQUENCE

- A. Construct Work generally in the following stages to allow for Owner's continuous occupancy and for uninterrupted operation during construction.
- B. To meet the overall objectives of the Project, certain tasks and task elements should be performed, completed, or substantially completed in the herein-suggested sequences. However, two or more of the tasks or task elements may be pursued simultaneously when consistent with the requirements specified herein and the Project Schedule.
- C. The suggested sequences and tasks are not all-inclusive. They are intended to convey overall constraints and suggested construction sequences. Contractor shall plan the Work, relocate facilities, reroute utilities, and provide for temporary connections and terminations as necessary in an appropriate sequence of operation to perform the Work, while minimizing interferences with and providing for continuous operation of the Owner's existing wastewater facilities.
- D. Task headings and descriptions set forth below are descriptive only and are not intended to define the scope of Work included therein.

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- E. Major tasks and sequences have been identified for the Owner's purposes. Although all Work is not listed herein, the tasks listed shall be understood to include all accompanying tasks such as, but not limited to, Sitework, interconnecting utilities associated infrastructure, and applicable temporary provisions necessary to sequence the Work. Temporary provisions shall include pipeline endcaps, other utility terminations, and temporary utilities as necessary to allow operation of portions of the Work prior to completion of other portions of the Work, consistent with the Contractor's sequence of operations, although such provisions are not shown.
- F. All existing Owner facilities shall remain in continuous operation except as specified herein.
- G. Required Constraints and Suggested Task Sequencing:
 - 1. The suggested sequencing listed below assumes all mobilization and submittal review activities have been completed and the materials or equipment are onsite.
 - a. Initial Sitework:
 - 1) Install erosion control measures.
 - 2) Install staging areas, temporary Contractor security fencing, and other security measures.
 - 3) Provide temporary grading for excavator access to work area.
 - b. Facility 05 Site Improvements:
 - 1) Sequence other site work as required to complete other Work.
 - 2) Relocation of existing 10 inches W4 (fire protection piping) and 8 inches W3 (from non-potable water pumps) is required to install new 6 inches D. Coordinate removal from service of these pipes at two separate times for a period not to exceed 2 hours. Perform in-service test of relocated pipeline segments, for up to 30 minutes duration, which will require coordination with Owner for use of Fire Pump system. Provide firehose and temporary piping as required to attach to Owner-identified on-site hydrant to discharge W4 to process tankage.
 - c. Facility 55 Channel 2 UV System:
 - 1) Relocate Plant Effluent pH/temperature probe and transmitter (55AE1250 and 55AIT1250) prior to construction of Channel 2.
 - 2) In coordination with excavation, provide temporary walkway supports to allow access to Channel 1 equipment as specified.

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- 3) Following successful startup and Engineer and Owner's acceptance of performance test data at Channel 2 UV system, allow 14-calendar day period to elapse before taking Channel 1 out of service. Following this 14-day period, and with Resident Project Representative's confirmation, proceed with work required for Channel 1 UV system.
 - 4) Following successful startup and Engineer's and Owner's acceptance of performance test data at Channel 1 UV system, relocate UV Channel 2 transformer to permanent location as shown on the Drawings.
 - 5) Reinstall modified canopy at UV facilities as soon as practical following installation of new facilities and equipment.
 - 6) Coordinate effluent sampler relocation such that relocation and startup of sampler in new location is accomplished.
- d. Facility 55 Channel 1 UV System:
- 1) Maintain UV system process in service continuously until the Channel 2 UV system is fully commissioned and has passed all testing requirements described in Section 01 91 14, Equipment Testing and Facility Startup, and Section 44 44 73, Ultraviolet Disinfection Equipment for Wastewater.
 - 2) Following successful startup and Engineer and Owner's acceptance of performance test data at Channel 2 UV system, allow 14-calendar day period to elapse before taking Channel 1 out of service. Following this 14-day period, and with Resident Project Representative's confirmation, proceed with work required for Channel 1 UV system.
 - 3) Following successful startup and Engineer's and Owner's acceptance of performance test data at Channel 1 UV system, relocate UV Channel 2 transformer to permanent location as shown on the Drawings.
 - 4) Reinstall modified canopy at UV facilities as soon as practical following installation of new facilities and equipment.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 GENERAL

1.01 GENERAL

- A. The Resident Project Representative (RPR) will schedule physical arrangements for meetings throughout progress of the Work, prepare meeting agenda with regular participant input and distribute with written notice of each meeting, preside at meetings, record minutes to include significant proceedings and decisions, and reproduce and distribute copies of minutes within 5 days after each meeting to participants and parties affected by meeting decisions.
- B. Meetings will be held either in person or via online video conference calls at Owner's discretion.

1.02 EARLY WORK PRECONSTRUCTION CONFERENCE

- A. This initial preconstruction conference is intended to expedite project initiation to allow early excavation and structural work to proceed promptly. Coordinate with Owner and schedule this meeting within 10 days of Notice to Proceed.
- B. Contractor shall be prepared to discuss the following subjects, as a minimum:
 - 1. Initial schedule for earthwork and structural activities, including preliminary progress schedule for first 90 days from Notice to Proceed.
 - 2. Initial submittals required to enable early project work.
 - 3. Initial temporary sediment and erosion control measures required to enable early work.
 - 4. Status of Bonds and insurance.
 - 5. Sequencing of critical path work items.
 - 6. Use of Site, access, office and storage areas, security, and temporary facilities.
 - 7. Contractor's safety plan and representative.
- C. Attendees will include:
 - 1. Owner's representatives.
 - 2. Contractor's office representative.
 - 3. Contractor's resident superintendent.
 - 4. Contractor's quality control representative.

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5. Subcontractors' representatives whom Contractor may desire or Engineer may request to attend.
6. Engineer's representatives.
7. Others as appropriate.

1.03 PRECONSTRUCTION CONFERENCE

A. Contractor shall be prepared to discuss the following subjects, as a minimum:

1. Required schedules.
2. Status of Bonds and insurance.
3. Sequencing of critical path work items.
4. Progress payment procedures.
5. Project changes and clarification procedures.
6. Use of Site, access, office and storage areas, security, and temporary facilities.
7. Major product delivery and priorities.
8. Contractor's safety plan and representative.

B. Attendees will include:

1. Owner's representatives.
2. Contractor's office representative.
3. Contractor's resident superintendent.
4. Contractor's quality control representative.
5. Subcontractors' representatives whom Contractor may desire or Engineer may request to attend.
6. Engineer's representatives.
7. Others as appropriate.

1.04 PRELIMINARY SCHEDULES REVIEW MEETING

A. As set forth in General Conditions and Section 01 32 00, Construction Progress Documentation.

1.05 PROGRESS MEETINGS

A. RPR will schedule regular progress meetings at Site, conducted weekly to review the Work progress, Progress Schedule, Schedule of Submittals, Application for Payment, contract modifications, and other matters needing discussion and resolution.

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B. Attendees will include:

1. Owner's representative(s), as appropriate.
2. Contractor, Subcontractors, and Suppliers, as appropriate.
3. Engineer's representative(s).
4. Others as appropriate.

1.06 QUALITY CONTROL MEETINGS

A. In accordance with Section 01 45 16.13, Contractor Quality Control.

B. Scheduled by RPR on regular basis and as necessary to review test and inspection reports, and other matters relating to quality control of the Work and work of other Contractors.

C. Attendees will include:

1. Contractor.
2. Contractor's designated quality control representative.
3. Subcontractors and Suppliers, as necessary.
4. Engineer's representatives.

1.07 PROCESS INSTRUMENTATION AND CONTROL SYSTEMS (PICS)
COORDINATION MEETINGS

A. Engineer will schedule meetings at Site, conducted monthly to review specific requirements of PICS work.

B. Attendees will include:

1. Contractor.
2. Owner.
3. PICS Subcontractor/Installer.
4. Engineer's representatives.

1.08 PREINSTALLATION MEETINGS

A. When required in individual specification sections, convene at Site prior to commencing the Work of that section.

B. Require attendance of entities directly affecting, or affected by, the Work of that section.

C. Notify Engineer 4 days in advance of meeting date.

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- D. Provide suggested agenda to Engineer to include reviewing conditions of installation, preparation and installation or application procedures, and coordination with related Work and work of others.

1.09 FACILITY STARTUP MEETINGS

- A. Schedule and attend a minimum of two facility startup meetings. First of such meetings shall be held prior to submitting Facility Startup Plan, as specified in Section 01 91 14, Equipment Testing and Facility Startup, and shall include preliminary discussions regarding such plan.
- B. Agenda items shall include, but not be limited to, content of Facility Startup Plan, coordination needed between various parties in attendance, and potential problems associated with startup.
- C. Attendees will include:
 - 1. Contractor.
 - 2. Contractor's designated quality control representative.
 - 3. Subcontractors and equipment manufacturer's representatives whom Contractor deems to be directly involved in facility startup.
 - 4. Engineer's representatives.
 - 5. Owner's operations personnel.
 - 6. Others as required by Contract Documents or as deemed necessary by Contractor.

1.10 OTHER MEETINGS

- A. In accordance with Contract Documents and as may be required by Owner and Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Preliminary Progress Schedule: Submit within time specified in Paragraph 2.03 of the General Conditions.
2. Detailed Progress Schedule:
 - a. Submit initial Detailed Progress Schedule within 60 days after Effective Date of the Agreement.
 - b. Submit an Updated Progress Schedule at each update, in accordance with Article Detailed Progress Schedule.
3. Submit with Each Progress Schedule Submission:
 - a. Contractor's certification that Progress Schedule submission is actual schedule being used for execution of the Work.
 - b. Electronic file compatible with latest version of Project Planner (P6) by Primavera Systems, Inc., unless otherwise approved by Engineer.
 - c. Narrative Progress Report: Same number of copies as specified for Progress Schedule.
4. Prior to final payment, submit a final Updated Progress Schedule.

1.02 PRELIMINARY PROGRESS SCHEDULE

- A.** In addition to basic requirements outlined in General Conditions, show a detailed schedule, beginning with Notice to Proceed, for minimum duration of 90 days, and a summary of balance of Project through Final Completion.
- B.** Show activities including, but not limited to, the following:
1. Notice to Proceed.
 2. Permits.
 3. Submittals, with review time. Contractor may use Schedule of Submittals specified in Section 01 33 00, Submittal Procedures.
 4. Early procurement activities for long lead equipment and materials.
 5. Initial Site work.
 6. Earthwork.
 7. Specified Work sequences and construction constraints.
 8. Contract Milestone and Completion Dates.

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9. Owner-furnished products delivery dates or ranges of dates as applicable.
 10. Major structural, mechanical, equipment, electrical, architectural, and instrumentation and control Work.
 11. System startup summary.
 12. Project close-out summary.
 13. Demobilization summary.
- C. Update Preliminary Progress Schedule monthly as part of progress payment process. Failure to do so may result in the Owner withholding all or part of the monthly progress payment until the Preliminary Progress Schedule is updated in a manner acceptable to Engineer.
- D. Format: In accordance with Article Progress Schedule—Critical Path Network.

1.03 DETAILED PROGRESS SCHEDULE

- A. In addition to requirements of General Conditions, submit Detailed Progress Schedule beginning with Notice to Proceed and continuing through Final Completion.
- B. Show the duration and sequences of activities required for complete performance of the Work reflecting means and methods chosen by Contractor.
- C. When accepted by Engineer, Detailed Progress Schedule will replace Preliminary Progress Schedule and become Baseline Schedule. Subsequent revisions will be considered as Updated Progress Schedules.
- D. Format: In accordance with Article Progress Schedule—Critical Path Network.
- E. Update monthly to reflect actual progress and occurrences to date, including weather delays.

1.04 PROGRESS SCHEDULE—CRITICAL PATH NETWORK

- A. General: Comprehensive computer-generated schedule using CPM, generally as outlined in Associated General Contractors of America (AGC) 580, “Construction Project Planning and Scheduling Guidelines.” If a conflict occurs between the AGC publication and this Specification, this Specification shall govern.

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B. Contents:

1. Schedule shall begin with the date of Notice to Proceed and conclude with the date of Final Completion.
2. Identify Work calendar basis using days as a unit of measure.
3. Show complete interdependence and sequence of construction and Project-related activities reasonably required to complete the Work.
4. Identify the Work of separate stages and other logically grouped activities, and clearly identify critical path of activities.
5. Reflect sequences of the Work, restraints, delivery windows, review times, Contract Times and Project Milestones set forth in the Agreement and Section 01 31 13, Project Coordination.
6. Include as applicable, at a minimum:
 - a. Obtaining permits, submittals for early product procurement, and long lead time items.
 - b. Mobilization and other preliminary activities.
 - c. Initial Site work.
 - d. Specified Work sequences, constraints, and Milestones, including Substantial Completion date(s) Subcontract Work.
 - e. Major equipment design, fabrication, factory testing, and delivery dates.
 - f. Delivery dates for Owner-furnished products (if any), as specified in Section 01 11 00, Summary of Work.
 - g. Sitework.
 - h. Concrete Work.
 - i. Equipment Work.
 - j. Mechanical Work.
 - k. Electrical Work.
 - l. Instrumentation and control Work.
 - m. Interfaces with Owner-furnished equipment (if any).
 - n. Other important Work for each major facility.
 - o. Short and long duration process outages (depending on Contractor's means and methods), including but not limited to potentially:
 - 1) Installation and removal of inflatable plugs or bulkheads.
 - 2) Installation of stop logs.
 - p. Equipment and system startup and test activities.
 - q. Project closeout and cleanup.
 - r. Demobilization.
7. No activity duration, exclusive of those for Submittals review and product fabrication/delivery, shall be less than 1 day nor more than 30 days, unless otherwise approved.

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8. Activity duration for Submittal review shall not be less than review time specified unless clearly identified and prior written acceptance has been obtained from Engineer.

C. Network Graphical Display:

1. Plot or print on paper not greater than 30 inches by 42 inches or smaller than 22 inches by 34 inches, unless otherwise approved.
2. Title Block: Show name of Project, Owner, date submitted, revision or update number, and the name of the scheduler. Updated schedules shall indicate data date.
3. Identify horizontally across top of schedule the time frame by year, month, and day.
4. Identify each activity with a unique number and a brief description of the Work associated with that activity.
5. Indicate the critical path.
6. Show, at a minimum, the controlling relationships between activities.
7. Plot activities on a time-scaled basis, with the length of each activity proportional to the current estimate of the duration.
8. Plot activities on an early start basis unless otherwise requested by Engineer.
9. Provide a legend to describe standard and special symbols used.

D. Schedule Report:

1. On 8-1/2-inch by 11-inch white paper, unless otherwise approved.
2. List information for each activity in tabular format, including at a minimum:
 - a. Activity Identification Number.
 - b. Activity Description.
 - c. Original Duration.
 - d. Remaining Duration.
 - e. Early Start Date (Actual start on Updated Progress Schedules).
 - f. Early Finish Date (Actual finish on Updated Progress Schedules).
 - g. Late Start Date.
 - h. Late Finish Date.
 - i. Total Float.
3. Sort reports, in ascending order, as listed below:
 - a. Activity number sequence with predecessor and successor activity.
 - b. Activity number sequence.
 - c. Early-start.
 - d. Total float.

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1.05 PROGRESS OF THE WORK

- A. Updated Progress Schedule shall reflect:
 - 1. Progress of Work to within 5 working days prior to submission.
 - 2. Approved changes in Work scope and activities modified since submission.
 - 3. Delays in Submittals or resubmittals, deliveries, or Work.
 - 4. Adjusted or modified sequences of Work.
 - 5. Other identifiable changes.
 - 6. Revised projections of progress and completion.
 - 7. Report of changed logic.
- B. Produce detailed subschedules during Project, upon request of Owner or Engineer, to further define critical portions of the Work such as facility shutdowns.
- C. If an activity is not completed by its latest scheduled completion date and this failure is anticipated to extend Contract Times (or Milestones), submit, within 7 days of such failure, a written statement as to how nonperformance will be corrected to return Project to acceptable current Progress Schedule. Actions by Contractor to complete the Work within Contract Times (or Milestones) will not be justification for adjustment to Contract Price or Contract Times.
- D. Owner may order Contractor to increase plant, equipment, labor force, or working hours if Contractor fails to:
 - 1. Complete a Milestone activity by its completion date.
 - 2. Satisfactorily execute Work as necessary to prevent delay to overall completion of Project, at no additional cost to Owner.

1.06 NARRATIVE PROGRESS REPORT

- A. Format:
 - 1. Organize same as Progress Schedule.
 - 2. Identify, on a cover letter, reporting period, date submitted, and name of author of report.
- B. Contents:
 - 1. Number of days worked over the period, work force on hand, construction equipment on hand (including utility vehicles such as pickup trucks, maintenance vehicles, stake trucks).

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2. General progress of Work, including a listing of activities started and completed over the reporting period, mobilization/demobilization of subcontractors, and major milestones achieved.
3. Contractor's plan for management of Site (for example, lay down and staging areas, construction traffic), use of construction equipment, buildup of trade labor, and identification of potential Contract changes.
4. Identification of new activities and sequences as a result of executed Contract changes.
5. Documentation of weather conditions over the reporting period, and any resulting impacts to the work.
6. Description of actual or potential delays, including related causes, and the steps taken or anticipated to mitigate their impact.
7. Changes to activity logic.
8. Changes to the critical path.
9. Identification of, and accompanying reason for, any activities added or deleted since the last report.
10. Steps taken to recover the schedule from Contractor-caused delays.

1.07 SCHEDULE ACCEPTANCE

A. Engineer's acceptance will demonstrate agreement that:

1. Proposed schedule is accepted with respect to:
 - a. Contract Times, including Final Completion and all intermediate Milestones, are within the specified times.
 - b. Specified Work sequences and constraints are shown as specified.
 - c. Specified Owner-furnished Equipment or Material arrival dates, or range of dates, are included.
 - d. Access restrictions are accurately reflected.
 - e. Startup and testing times are as specified.
 - f. Submittal review times are as specified.
 - g. Startup testing duration is as specified and timing is acceptable.
2. In all other respects, Engineer's acceptance of Contractor's schedule indicates that, in Engineer's judgment, schedule represents reasonable plan for constructing Project in accordance with the Contract Documents. Engineer's review will not make any change in Contract requirements. Lack of comment on any aspect of schedule that is not in accordance with the Contract Documents will not thereby indicate acceptance of that change, unless Contractor has explicitly called the nonconformance to Engineer's attention in submittal. Schedule remains Contractor's responsibility and Contractor retains responsibility for performing all activities, for activity durations, and for activity sequences required to construct Project in accordance with the Contract Documents.

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B. Unacceptable Preliminary Progress Schedule:

1. Make requested corrections; resubmit within 10 days.
2. Until acceptable to Engineer as Baseline Progress Schedule, continue review and revision process, including updating schedule on a monthly basis to reflect actual progress and occurrences to date.

C. Unacceptable Detailed Progress Schedule:

1. Make requested corrections; resubmit within 10 days.
2. Until acceptable to Engineer as Baseline Progress Schedule, continue review and revision process.

D. Narrative Report: All changes to activity duration and sequences, including addition or deletion of activities subsequent to Engineer's acceptance of Baseline Progress Schedule, shall be delineated in Narrative Report current with proposed Updated Progress Schedule.

1.08 ADJUSTMENT OF CONTRACT TIMES

A. Reference Section 00 72 00, General Conditions, and Section 01 26 00, Contract Modification Procedures.

B. Evaluation and reconciliation of Adjustments of Contract Times shall be based on the Updated Progress Schedule at the time of proposed adjustment or claimed delay.

C. Schedule Contingency:

1. Contingency, when used in the context of the Progress Schedule, is time between Contractor's proposed Completion Time and Contract Completion Time.
2. Contingency included in Progress Schedule is a Project resource available to both Contractor and Owner to meet Contract Milestones and Contract Times. Use of Schedule contingency shall be shared to the proportionate benefit of both parties.
3. Use of schedule contingency suppression techniques such as preferential sequencing and extended activity times is prohibited.
4. Pursuant to Contingency sharing provisions of this specification, no time extensions will be granted, nor will delay damages be paid until a delay occurs which (i) consumes all available contingency time, and (ii) extends Work beyond the Contract Completion date.

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D. Float:

1. Float time is a Project resource available to both parties to meet contract Milestones and Contract Times.
2. Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic restraints, and extended activity times are prohibited, and use of float time disclosed or implied by use of alternate float-suppression techniques shall be shared to proportionate benefit of Owner and Contractor.
3. Pursuant to above float-sharing requirement, no time extensions will be granted nor delay damages paid until a delay occurs which (i) impacts Project's critical path, (ii) consumes available float or contingency time, and (iii) extends Work beyond contract completion date.

E. Claims Based on Contract Times:

1. Where Engineer has not yet rendered formal decision on Contractor's Claim for adjustment of Contract Times, and parties are unable to agree as to amount of adjustment to be reflected in Progress Schedule, reflect an interim adjustment in the Progress Schedule as acceptable to Engineer.
2. It is understood and agreed that such interim acceptance will not be binding on either Contractor or Owner and will be made only for the purpose of continuing to schedule Work until such time as formal decision has been rendered as to an adjustment, if any, of the Contract Times.
3. Revise Progress Schedule prepared thereafter in accordance with Engineer's formal decision.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 DEFINITIONS

- A. Action Submittal: Written and graphic information submitted by Contractor that requires Engineer's approval.
- B. Deferred Submittal: Information submitted by Contractor for portions of design that are to be submitted to permitting agency for approval prior to installation of that portion of the Work, along with Engineer's review documentation that submittal has been found to be in general conformance with Project's design. See Supplementary Conditions for information about Owner's payment of County fees for Deferred Submittals.
- C. Informational Submittal: Information submitted by Contractor that requires Engineer's review and determination that submitted information is in accordance with the Conditions of the Contract.

1.02 PROCEDURES

- A. Electronic Submittals: Submittals shall, unless specifically accepted, be made in electronic format.
 - 1. Each submittal shall be an electronic file in Adobe Acrobat Portable Document Format (PDF). Use the latest version available at time of execution of the Agreement.
 - 2. Electronic files that contain more than 10 pages in PDF format shall contain internal bookmarking from an index page to major sections of the document.
 - 3. PDF files shall be set to open "Bookmarks and Page" view.
 - 4. Provide bookmarks to lowest outline hierarchy level of content.
 - 5. "Locked" format PDF files shall not be acceptable, and PDF files as submitted shall be capable of having pages extracted Adobe Acrobat or Bluebeam Revu or similar software.
 - 6. Provide searchable text function for all pages of each submittal. Apply Optical Character Recognition (OCR) formatting for content that does not have searchable text feature automatically incorporated by native file format.
 - 7. Add general information to each PDF file, including title, subject, author, and keywords.

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8. PDF files shall be set up to print legibly at 8.5-inch by 11-inch, 11-inch by 17-inch, or 22-inch by 34-inch. No other paper sizes will be accepted.
9. Submit new electronic files for each resubmittal.
10. Include a copy of the Transmittal of Contractor's Submittal form, located at end of section, with each electronic file.
11. Engineer will reject submittal that is not electronically submitted, unless specifically accepted.
12. Provide Engineer with authorization to reproduce and distribute each file as many times as necessary for Project documentation.
13. Detailed procedures for handling electronic submittals will be discussed at the preconstruction conference.

B. Transmittal of Submittal:

1. Contractor shall:
 - a. Review each submittal and check for compliance with Contract Documents.
 - b. Stamp each submittal with uniform approval stamp before submitting to Engineer.
 - 1) Stamp to include Project name, submittal number, Specification number, Contractor's reviewer name, date of Contractor's approval, and statement certifying submittal has been reviewed, checked, and approved for compliance with Contract Documents.
 - 2) Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
2. Complete, sign, and transmit with each submittal package, one Transmittal of Contractor's Submittal form attached at end of this section.
3. Identify each submittal with the following:
 - a. Numbering and Tracking System:
 - 1) Sequentially number each submittal.
 - 2) Resubmission of submittal shall have original number with sequential alphabetic suffix.
 - b. Specification section and paragraph to which submittal applies.
 - c. Project title and Engineer's project number.
 - d. Date of transmittal.
 - e. Names of Contractor, Subcontractor or Supplier, and manufacturer as appropriate.
4. Identify and describe each deviation or variation from Contract Documents.

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C. Format:

1. Do not base Shop Drawings on reproductions of Contract Documents.
2. Package submittal information by individual specification section. Do not combine different specification sections together in submittal package, unless otherwise directed in specification.
3. Present in a clear and thorough manner and in sufficient detail to show kind, size, arrangement, and function of components, materials, and devices, and compliance with Contract Documents.
4. Index with labeled tab dividers in orderly manner.

D. Timeliness: Schedule and submit in accordance Schedule of Submittals, and requirements of individual specification sections.

E. Processing Time:

1. Time for review shall commence on Engineer's receipt of submittal.
2. Engineer will act upon Contractor's submittal and transmit response to Contractor not later than 21 days after receipt, unless otherwise specified.
3. Resubmittals will be subject to same review time.
4. No adjustment of Contract Times or Price will be allowed as a result of delays in progress of Work caused by rejection and subsequent resubmittals.

F. Resubmittals: Clearly identify each correction or change made.

G. Incomplete Submittals:

1. Engineer will return entire submittal for Contractor's revision if preliminary review deems it incomplete.
2. When any of the following are missing, submittal will be deemed incomplete:
 - a. Contractor's review stamp; completed and signed.
 - b. Transmittal of Contractor's Submittal; completed and signed.
 - c. Insufficient number of copies.

H. Submittals not required by Contract Documents:

1. Will not be reviewed and will be returned stamped "Not Subject to Review."
2. Engineer will keep one copy and return submittal to Contractor.

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1.03 ACTION SUBMITTALS

- A. Prepare and submit Action Submittals required by individual specification sections.
- B. Shop Drawings:
 - 1. Identify and Indicate:
 - a. Applicable Contract Drawing and Detail number, products, units and assemblies, and system or equipment identification or tag numbers.
 - b. Equipment and Component Title: Identical to title shown on the Drawings.
 - c. Critical field dimensions and relationships to other critical features of Work. Note dimensions established by field measurement.
 - d. Project-specific information drawn accurately to scale.
 - 2. Manufacturer's standard schematic drawings and diagrams as follows:
 - a. Modify to delete information that is not applicable to the Work.
 - b. Supplement standard information to provide information specifically applicable to the Work.
- C. Product Data: Provide as specified in individual specifications.
- D. Deferred Submittal: See the Drawings for a list of specification sections requiring Deferred Submittals.
 - 1. Contractor-Design Drawings and product data related to permanent construction.
 - a. Written and graphic information.
 - b. Drawings.
 - c. Cut sheets.
 - d. Data sheets.
 - e. Action item submittals requested in individual specification section.
 - 2. Prior to installation of indicated structural or nonstructural element, equipment, distribution system, or component or its anchorage, submit required supporting data and drawings for review and acceptance by Engineer. Documentation of review and approval provided on Engineer's comment form, along with completed submittal, shall be filed with permitting agency by Contractor and approved by permitting agency prior to installation.

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- E. Foreign Manufacturers: When proposed, include names, and addresses of at least two companies that maintain technical service representatives within 500 miles of the Project.
- F. Samples:
 - 1. Copies: Two, unless otherwise specified in individual specifications.
 - 2. Preparation:
 - a. Mount, display, or package Samples in manner specified to facilitate review of quality. Attach label on unexposed side that includes the following:
 - 1) Manufacturer name.
 - 2) Model number.
 - 3) Material.
 - 4) Sample source.
 - 3. Manufacturer's Color Chart: Units or sections of units showing full range of colors, textures, and patterns available.
 - 4. Full-size Samples:
 - a. Size as indicated in individual specification section.
 - b. Prepared from same materials to be used for the Work.
 - c. Cured and finished in manner specified.
 - d. Physically identical with product proposed for use.
- G. Action Submittal Dispositions:
 - 1. Engineer will review, comment, stamp, and distribute as noted:
 - a. Approved:
 - 1) Contractor may incorporate product(s) or implement Work covered by submittal.
 - 2) Distribution: Electronic.
 - b. Approved as Noted:
 - 1) Contractor may incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
 - 2) Distribution: Electronic.
 - c. Partial Approval, Resubmit as Noted:
 - 1) Make corrections or obtain missing portions, and resubmit.
 - 2) Except for portions indicated, Contractor may begin to incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
 - 3) Distribution: Electronic.

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- d. Revise and Resubmit:
 - 1) Contractor may not incorporate product(s) or implement Work covered by submittal.
 - 2) Distribution: Electronic.

1.04 INFORMATIONAL SUBMITTALS

A. General:

- 1. Refer to individual specification sections for specific submittal requirements.
- 2. Engineer will review each submittal. If submittal meets conditions of the Contract, Engineer will forward copy to appropriate parties. If Engineer determines submittal does not meet conditions of the Contract and is therefore considered unacceptable, Engineer will return to Contractor and require that submittal be corrected and resubmitted.

B. Certificates:

- 1. General:
 - a. Provide notarized statement that includes signature of entity responsible for preparing certification.
 - b. Signed by officer or other individual authorized to sign documents on behalf of that entity.
- 2. Welding: In accordance with individual specification sections.
- 3. Installer: Prepare written statements on manufacturer's letterhead certifying installer complies with requirements as specified in individual specification section.
- 4. Material Test: Prepared by qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- 5. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in individual specification sections.
- 6. Manufacturer's Certificate of Compliance: In accordance with Section 01 61 00, Common Product Requirements.
- 7. Manufacturer's Certificate of Proper Installation: In accordance with Section 01 43 33, Manufacturers' Field Services.

C. Construction Photographs: In accordance with Section 01 31 13, Project Coordination, and as may otherwise be required in Contract Documents.

D. Closeout Submittals: In accordance with Section 01 77 00, Closeout Procedures.

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- E. Contractor-design Data (related to temporary construction):
 - 1. Written and graphic information.
 - 2. List of assumptions.
 - 3. List of performance and design criteria.
 - 4. Summary of loads or load diagram, if applicable.
 - 5. Calculations.
 - 6. List of applicable codes and regulations.
 - 7. Name and version of software.
 - 8. Information requested in individual specification section.
- F. Deferred Submittals: See the Drawings for a list specification sections requiring Deferred Submittals.
 - 1. Contractor-design Data Related to Permanent Construction:
 - a. List of assumptions.
 - b. List of performance and design criteria.
 - c. Summary of loads or load diagram, if applicable.
 - d. Calculations.
 - e. List of applicable codes and regulations.
 - f. Name and version of design software.
 - g. Factory test results.
 - h. Informational submittals requested in individual specification section.
 - 2. Prior to installation of indicated structural or nonstructural element, equipment, distribution system, or component or its anchorage, submit calculations and test results of Contractor-designed components for review by Engineer. Documentation of review and indication of compliance with general design intent and project criteria provided on Engineer's comment form as meets conditions of the Contract, along with completed submittal, shall be filed with permitting agency by Contractor and approved by permitting agency prior to installation.
- G. Manufacturer's Instructions: Written or published information that documents manufacturer's recommendations, guidelines, and procedures in accordance with individual specification section.
- H. Operation and Maintenance Data: As required in Section 01 78 23, Operation and Maintenance Data.
- I. Payment:
 - 1. Application for Payment: In accordance with Section 01 29 00, Payment Procedures.

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2. Schedule of Values: In accordance with Section 01 29 00, Payment Procedures.
 3. Schedule of Estimated Progress Payments: In accordance with Section 01 29 00, Payment Procedures.
- J. Quality Control Documentation: As required in Section 01 45 16.13, Contractor Quality Control.
- K. Schedules:
1. Schedule of Submittals: Shall be submitted as a standalone document.
 - a. Show for each, at a minimum, the following:
 - 1) Specification section number.
 - 2) Identification by numbering and tracking system as specified under Paragraph Transmittal of Submittal.
 - 3) Estimated date of submission to Engineer, including reviewing and processing time.
 - b. On a monthly basis, submit updated Schedule of Submittals to Engineer if changes have occurred or resubmittals are required.
 2. Progress Schedules: In accordance with Section 01 32 00, Construction Progress Documentation.
- L. Special Guarantee: Supplier's written guarantee as required in individual specification sections.
- M. Statement of Qualification: Evidence of qualification, certification, or registration as required in Contract Documents to verify qualifications of professional land surveyor, engineer, materials testing laboratory, specialty Subcontractor, trade, Specialist, consultant, installer, and other professionals.
- N. Submittals Required by Laws, Regulations, and Governing Agencies:
1. Promptly submit notifications, reports, certifications, payrolls, and otherwise as may be required, directly to the applicable federal, state, or local governing agency or their representative.
 2. Transmit to Engineer for Owner's records one copy of correspondence and transmittals (to include enclosures and attachments) between Contractor and governing agency.
- O. Test, Evaluation, and Inspection Reports:
1. General: Shall contain signature of person responsible for test or report.
 2. Factory:
 - a. Identification of product and specification section, type of inspection or test with referenced standard or code.

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- b. Date of test, Project title and number, and name and signature of authorized person.
 - c. Test results.
 - d. If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
 - e. Provide interpretation of test results, when requested by Engineer.
 - f. Other items as identified in individual specification sections.
3. Field:
- a. As a minimum, include the following:
 - 1) Project title and number.
 - 2) Date and time.
 - 3) Record of temperature and weather conditions.
 - 4) Identification of product and specification section.
 - 5) Type and location of test, Sample, or inspection, including referenced standard or code.
 - 6) Date issued, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
 - 7) If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
 - 8) Provide interpretation of test results, when requested by Engineer.
 - 9) Other items as identified in individual specification sections.

P. Testing and Startup Data: In accordance with Section 01 91 14, Equipment Testing and Facility Startup.

Q. Training Data: In accordance with Section 01 43 33, Manufacturers' Field Services.

1.05 SUPPLEMENT

A. The supplement listed below, following "End of Section," is a part of this specification:

- 1. Transmittal of Contractor's Submittal.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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TRANSMITTAL OF CONTRACTOR'S SUBMITTAL (ATTACH TO EACH SUBMITTAL)			
DATE: _____			
TO: _____ _____ _____ _____ _____ FROM: _____ Contractor _____ _____ _____	Submittal No.: _____ ☐ New Submittal ☐ Resubmittal Project: _____ Project No.: _____ Specification Section No.: _____ (Cover only one section with each transmittal) Schedule Date of Submittal: _____ _____		
SUBMITTAL TYPE:	☐ Shop Drawing	☐ Sample	☐ Informational
	☐ Deferred		

The following items are hereby submitted:

Number of Copies	Description of Item Submitted (Type, Size, Model Number, Etc.)	Spec. and Para. No.	Drawing or Brochure Number	Contains Variation to Contract	
				No	Yes

Contractor hereby certifies that (i) Contractor has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and requirements of laws and regulations and governing agencies.

By: _____
Contractor (Authorized Signature)

SECTION 01 42 13
ABBREVIATIONS AND ACRONYMS

PART 1 GENERAL

1.01 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES

- A. Reference to standards and specifications of technical societies and reporting and resolving discrepancies associated therewith shall be as provided in Article 3 of the General Conditions, and as may otherwise be required herein and in the individual Specification sections.
- B. Work specified by reference to published standard or specification of government agency, technical association, trade association, professional society or institute, testing agency, or other organization shall meet requirements or surpass minimum standards of quality for materials and workmanship established by designated standard or specification.
- C. Where so specified, products or workmanship shall also meet or exceed additional prescriptive, or performance requirements included within Contract Documents to establish a higher or more stringent standard of quality than required by referenced standard.
- D. Where two or more standards are specified to establish quality, product and workmanship shall meet or exceed requirements of most stringent.
- E. Where both a standard and a brand name are specified for a product in Contract Documents, proprietary product named shall meet or exceed requirements of specified reference standard.
- F. Copies of standards and specifications of technical societies:
 - 1. Copies of applicable referenced standards have not been bound in these Contract Documents.
 - 2. Where copies of standards are needed by Contractor, obtain a copy or copies directly from publication source and maintain in an orderly manner at the Site as Work Site records, available to Contractor's personnel, Subcontractors, Owner, and Engineer.

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1.02 ABBREVIATIONS

A. Abbreviations for trade organizations and government agencies: Following is a list of construction industry organizations and government agencies to which references may be made in the Contract Documents, with abbreviations used.

1.	AA	Aluminum Association
2.	AABC	Associated Air Balance Council
3.	AAMA	American Architectural Manufacturers Association
4.	AASHTO	American Association of State Highway and Transportation Officials
5.	ABMA	American Bearing Manufacturers' Association
6.	ACI	American Concrete Institute
7.	AEIC	Association of Edison Illuminating Companies
8.	AGA	American Gas Association
9.	AGMA	American Gear Manufacturers' Association
10.	AI	Asphalt Institute
11.	AISC	American Institute of Steel Construction
12.	AISI	American Iron and Steel Institute
13.	AITC	American Institute of Timber Construction
14.	ALS	American Lumber Standards
15.	AMCA	Air Movement and Control Association
16.	ANSI	American National Standards Institute
17.	APA	APA – The Engineered Wood Association
18.	API	American Petroleum Institute
19.	APWA	American Public Works Association
20.	AHRI	Air-Conditioning, Heating, and Refrigeration Institute
21.	ASA	Acoustical Society of America
22.	ASABE	American Society of Agricultural and Biological Engineers
23.	ASCE	American Society of Civil Engineers
24.	ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
25.	ASME	American Society of Mechanical Engineers
26.	ASNT	American Society for Nondestructive Testing
27.	ASSE	American Society of Sanitary Engineering
28.	ASTM	ASTM International
29.	AWI	Architectural Woodwork Institute
30.	AWPA	American Wood Preservers' Association
31.	AWPI	American Wood Preservers' Institute
32.	AWS	American Welding Society
33.	AWWA	American Water Works Association

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34.	BHMA	Builders Hardware Manufacturers' Association
35.	CBM	Certified Ballast Manufacturer
36.	CC	Change Control
37.	CDA	Copper Development Association
38.	CGA	Compressed Gas Association
39.	CISPI	Cast Iron Soil Pipe Institute
40.	CMAA	Crane Manufacturers' Association of America
41.	COV	City of Vancouver
42.	CRSI	Concrete Reinforcing Steel Institute
43.	CRWWD	Clark Regional Wastewater District
44.	CS	Commercial Standard
45.	CSA	Canadian Standards Association
46.	CSI	Construction Specifications Institute
47.	DCWA	Discovery Clean Water Alliance
48.	DIN	Deutsches Institut für Normung e.V.
49.	DIPRA	Ductile Iron Pipe Research Association
50.	Ecology	Washington Department of Ecology
51.	EIA	Electronic Industries Alliance
52.	EJCDC	Engineers Joint Contract Documents' Committee
53.	ETL	Electrical Test Laboratories
54.	FAA	Federal Aviation Administration
55.	FCC	Federal Communications Commission
56.	FDA	Food and Drug Administration
57.	FEMA	Federal Emergency Management Agency
58.	FIPS	Federal Information Processing Standards
59.	FM	FM Global
60.	Fed. Spec.	Federal Specifications (FAA Specifications)
61.	FS	Federal Specifications and Standards (Technical Specifications)
62.	GA	Gypsum Association
63.	GANA	Glass Association of North America
64.	HI	Hydraulic Institute
65.	HMI	Hoist Manufacturers' Institute
66.	IBC	International Building Code
67.	ICBO	International Conference of Building Officials
68.	ICC	International Code Council
69.	ICEA	Insulated Cable Engineers' Association
70.	IFC	International Fire Code
71.	IEEE	Institute of Electrical and Electronics Engineers, Inc.
72.	IESNA	Illuminating Engineering Society of North America
73.	IFI	Industrial Fasteners Institute

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74.	IGMA	Insulating Glass Manufacturer's Alliance
75.	IMC	International Mechanical Code
76.	INDA	Association of the Nonwoven Fabrics Industry
77.	IPC	International Plumbing Code
78.	ISA	International Society of Automation
79.	ISO	International Organization for Standardization
80.	ITL	Independent Testing Laboratory
81.	JIC	Joint Industry Conferences of Hydraulic Manufacturers
82.	MIA	Marble Institute of America
83.	MIL	Military Specifications
84.	MMA	Monorail Manufacturers' Association
85.	MSS	Manufacturer's Standardization Society
86.	NAAMM	National Association of Architectural Metal Manufacturers
87.	NACE	NACE International
88.	NBGQA	National Building Granite Quarries Association
89.	NEBB	National Environmental Balancing Bureau
90.	NEC	National Electrical Code
91.	NECA	National Electrical Contractors Association
92.	NEMA	National Electrical Manufacturers' Association
93.	NESC	National Electrical Safety Code
94.	NETA	InterNational Electrical Testing Association
95.	NFPA	National Fire Protection Association
96.	NHLA	National Hardwood Lumber Association
97.	NICET	National Institute for Certification in Engineering Technologies
98.	NIST	National Institute of Standards and Technology
99.	NRCA	National Roofing Contractors Association
100.	NRTL	Nationally Recognized Testing Laboratories
101.	NSF	NSF International
102.	NSPE	National Society of Professional Engineers
103.	NTMA	National Terrazzo and Mosaic Association
104.	NWWDA	National Wood Window and Door Association
105.	OSHA	Occupational Safety and Health Act (both Federal and State)
106.	PCI	Precast/Prestressed Concrete Institute
107.	PEI	Porcelain Enamel Institute
108.	PPI	Plastic Pipe Institute
109.	PS	Product Standards Section-U.S. Department of Commerce
110.	RFS	Removal from Service
111.	RMA	Rubber Manufacturers' Association
112.	RPR	Resident Project Representative

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113. RTP	Ridgefield Treatment Plant
114. RUS	Rural Utilities Service
115. SAE	SAE International
116. SCTP	Salmon Creek Treatment Plant
117. SDI	Steel Deck Institute
118. SDI	Steel Door Institute
119. SJI	Steel Joist Institute
120. SMACNA	Sheet Metal and Air Conditioning Contractors National Association
121. SPI	Society of the Plastics Industry
122. SSPC	The Society for Protective Coatings
123. STI/SPFA	Steel Tank Institute/Steel Plate Fabricators Association
124. SWCAA	Southwest Clean Air Agency
125. SWI	Steel Window Institute
126. TEMA	Tubular Exchanger Manufacturers' Association
127. TCA	Tile Council of North America
128. TIA	Telecommunications Industry Association
129. UBC	Uniform Building Code
130. UFC	Uniform Fire Code
131. UL	Underwriters Laboratories, Inc.
132. UMC	Uniform Mechanical Code
133. USBR	U.S. Bureau of Reclamation
134. WCLIB	West Coast Lumber Inspection Bureau
135. WI	Wood Institute
136. WWPA	Western Wood Products Association

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 43 33
MANUFACTURERS' FIELD SERVICES

PART 1 GENERAL

1.01 DEFINITIONS

- A. Person-Day: One person for 8 hours within regular Contractor working hours.

1.02 SUBMITTALS

- A. Informational Submittals:

1. Training Schedule: Submit, in accordance with requirements of this specification, not less than 21 days prior to start of equipment installation and revise as necessary for acceptance.
2. Lesson Plan: Submit, in accordance with requirements of this Specification, proposed lesson plan not less than 21 days prior to scheduled training and revise as necessary for acceptance.

1.03 QUALIFICATION OF MANUFACTURER'S REPRESENTATIVE

- A. Authorized representative of the manufacturer, factory trained, and experienced in the technical applications, installation, operation, and maintenance of respective equipment, subsystem, or system, with full authority by the equipment manufacturer to issue the certifications required of the manufacturer. Additional qualifications may be specified in the individual specification section.
- B. Representative subject to acceptance by Owner and Engineer. No substitute representatives will be allowed unless prior written approval by such has been given.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 FULFILLMENT OF SPECIFIED MINIMUM SERVICES

- A. Furnish manufacturers' services, when required by an individual specification section, to meet the requirements of this section.
- B. Where time is necessary in excess of that stated in the Specifications for manufacturers' services, or when a minimum time is not specified, time required to perform specified services shall be considered incidental.

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- C. Schedule manufacturer' services to avoid conflict with other onsite testing or other manufacturers' onsite services.
- D. Determine, before scheduling services, that conditions necessary to allow successful testing have been met.
- E. Only those days of service approved by Engineer will be credited to fulfill specified minimum services.
- F. When specified in individual specification sections, manufacturer's onsite services shall include:
 - 1. Assistance during product (system, subsystem, or component) installation to include observation, guidance, instruction of Contractor's assembly, erection, installation, or application procedures.
 - 2. Inspection, checking, and adjustment as required for product (system, subsystem, or component) to function as warranted by manufacturer and necessary to furnish Manufacturer's Certificate of Proper Installation.
 - 3. Providing, on a daily basis, copies of manufacturers' representatives field notes and data to Engineer.
 - 4. Revisiting the Site as required to correct problems and until installation and operation are acceptable to Engineer.
 - 5. Resolution of assembly or installation problems attributable to or associated with respective manufacturer's products and systems.
 - 6. Assistance during functional and performance testing, and facility startup and evaluation.
 - 7. Training of Owner's personnel in the operation and maintenance of respective product as required.

3.02 MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION

- A. When so specified, a Manufacturer's Certificate of Proper Installation form, a copy of which is attached to this section, shall be completed, and signed by equipment manufacturer's representative. Complete for each individual installation, particularly when multiple pieces of equipment are started up successively.
- B. Such form shall certify signing party is a duly authorized representative of manufacturer, is empowered by manufacturer to inspect, approve, and operate their equipment and is authorized to make recommendations required to ensure equipment is complete and operational.

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3.03 TRAINING

A. General:

1. Furnish manufacturers' representatives for detailed classroom and hands-on training to Owner's personnel on operation and maintenance of specified product (system, subsystem, component) and as may be required in applicable Specifications.
2. Furnish trained, articulate personnel to coordinate and expedite training, to be present during training coordination meetings with Owner, and familiar with operation and maintenance manual information specified in Section 01 78 23, Operation and Maintenance Data.
3. Manufacturer's representative shall be familiar with facility operation and maintenance requirements as well as with specified equipment.
4. Furnish complete training materials, to include operation and maintenance data, to be retained by each trainee.

B. Training Schedule:

1. List specified equipment and systems that require training services and show:
 - a. Respective manufacturer.
 - b. Estimated dates for installation completion.
 - c. Estimated training dates.
2. Allow for multiple sessions when several shifts are involved.
3. Adjust schedule to ensure training of appropriate personnel as deemed necessary by Owner, and to allow full participation by manufacturers' representatives. Adjust schedule for interruptions in operability of equipment.
4. Coordinate with Section 01 32 00, Construction Progress Documentation, and Section 01 91 14, Equipment Testing and Facility Startup.

C. Lesson Plan:

1. When manufacturer or vendor training of Owner personnel is specified, prepare a lesson plan for each required course containing the following minimum information:
 - a. Title and objectives.
 - b. Recommended attendees (such as, managers, engineers, operators, maintenance).
 - c. Course description, outline of course content, and estimated class duration.
 - d. Format (such as, lecture, self-study, demonstration, hands-on).

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- e. Instruction materials and equipment requirements.
- f. Resumes of instructors providing training.

D. Prestartup Training:

- 1. Coordinate training sessions with Owner's operating personnel and manufacturers' representatives, and with submission of operation and maintenance manuals in accordance with Section 01 78 23, Operation and Maintenance Data.
- 2. Complete at least 14 days prior to beginning of facility startup.

E. Post-startup Training: If required in Specifications, furnish and coordinate training of Owner's operating personnel by respective manufacturer's representatives.

F. Recording of Training Sessions: Provided by Owner. Coordinate with Owner's designated video production representative, to facilitate appropriate audio and video recording of prestartup and post-startup instruction sessions, including manufacturers' representatives' hands-on equipment instruction and classroom sessions.

3.04 SUPPLEMENT

A. The supplement listed below, following "End of Section," is a part of this specification:

- 1. Manufacturer's Certificate of Proper Installation.

END OF SECTION

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MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION

OWNER: _____ EQPT SERIAL NO: _____

EQPT TAG NO: _____ EQPT/SYSTEM: _____

PROJECT NO: _____ SPEC. SECTION: _____

I hereby certify that the above-referenced equipment/system has been:

(Check Applicable)

- ☐ Installed in accordance with Manufacturer's recommendations.
- ☐ Inspected, checked, and adjusted.
- ☐ Serviced with proper initial lubricants.
- ☐ Electrical and mechanical connections meet quality and safety standards.
- ☐ All applicable safety equipment has been properly installed.
- ☐ Functional tests.
- ☐ System has been performance tested, and meets or exceeds specified performance requirements. (When complete system of one manufacturer)

Note: Attach any performance test documentation from manufacturer.

Comments: _____

I, the undersigned Manufacturer's Representative, hereby certify that I am (i) a duly authorized representative of the manufacturer, (ii) empowered by the manufacturer to inspect, approve, and operate their equipment and (iii) authorized to make recommendations required to ensure equipment furnished by the manufacturer is complete and operational, except as may be otherwise indicated herein. I further certify that all information contained herein is true and accurate.

Date: _____, 20____

Manufacturer: _____

By Manufacturer's Authorized Representative: _____

(Authorized Signature)

SECTION 01 45 16.13
CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
 - a. D3740, Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - b. E329, Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.

1.02 DEFINITIONS

A. Contractor Quality Control (CQC): The means by which Contractor ensures that the construction, to include that performed by subcontractors and suppliers, complies with the requirements of the Contract.

1.03 SUBMITTALS

A. Informational Submittals:

1. CQC Plan: Submit, not later than 30 days after receipt of Notice to Proceed.
2. CQC Report: Submit, weekly, an original and one copy in report form.

1.04 OWNER'S QUALITY ASSURANCE

A. All Work is subject to Owner's quality assurance inspection and testing at all locations and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract Documents.

B. Owner's quality assurance inspections and tests are for the sole benefit of Owner and do not:

1. Relieve Contractor of responsibility for providing adequate quality control measures;
2. Relieve Contractor of responsibility for damage to or loss of the material before acceptance;

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- 3. Constitute or imply acceptance; or
 - 4. Affect the continuing rights of Owner after acceptance of the completed Work.
- C. The presence or absence of a quality assurance inspector does not relieve Contractor from any Contract requirement.
- D. Promptly furnish all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by Engineer.
- E. Owner may charge Contractor for any additional cost of inspection or test when Work is not ready at the time specified by Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary. Quality assurance inspections and tests will be performed in a manner that will not unnecessarily delay the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Maintain an adequate inspection system and perform such inspections as will ensure that the Work conforms to the Contract Documents.
- B. Maintain complete inspection records and make them available at all times to Owner and Engineer.
- C. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the Contract Documents. The system shall cover all construction and demolition operations, both onsite and offsite, including Work by subcontractors, fabricators, suppliers and purchasing agents, and shall be keyed to the proposed construction sequence.

3.02 COORDINATION MEETING

- A. After the Preconstruction Conference, but before start of construction, and prior to acceptance of the CQC Plan, schedule a meeting with Engineer and Owner to discuss the quality control system.

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- B. Develop a mutual understanding of the system details, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite Work, and the interrelationship of Contractor's management and control with the Owner's Quality Assurance.
- C. There may be occasions when subsequent conferences may be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures that may require corrective action by Contractor.

3.03 QUALITY CONTROL ORGANIZATION

A. CQC System Manager:

- 1. Designate an individual within Contractor's organization who will be responsible for overall management of CQC and have the authority to act in CQC matters for the Contractor.
- 2. CQC System Manager shall not be the Contractor's project manager.
- 3. CQC System Manager shall be an experienced construction person, with a minimum of 3 years construction experience on similar type Work.
- 4. CQC System Manager shall report to the Contractor's project manager or someone higher in the organization. Project manager in this context shall mean the individual with responsibility for the overall quality and production management of the Project.
- 5. CQC System Manager shall be onsite during construction; periods of absence may not exceed 2 weeks at any one time.
- 6. Identify an alternate for CQC System Manager to serve with full authority during the System Manager's absence. The requirements for the alternate will be the same as for designated CQC System Manager.

B. CQC Staff:

- 1. Designate a CQC staff, available at the Site at all times during progress, with complete authority to take any action necessary to ensure compliance with the Contract. CQC staff members shall be subject to acceptance by Engineer.
- 2. CQC staff shall take direction from CQC System Manager in matters pertaining to QC.
- 3. CQC staff must be of sufficient size to ensure adequate QC coverage of Work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities.

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4. The actual strength of the CQC staff may vary during any specific Work period to cover the needs of the Project. Add additional staff when necessary for a proper CQC organization.
- C. Organizational Changes: Obtain Engineer's acceptance before replacing any member of the CQC staff. Requests for changes shall include name, qualifications, duties, and responsibilities of the proposed replacement.

3.04 QUALITY CONTROL PHASING

- A. CQC shall include at least three phases of control to be conducted by CQC System Manager for all definable features of Work, as follows:
 1. Preparatory Phase:
 - a. Notify Owner at least 48 hours in advance of beginning any of the required action of the preparatory phase.
 - b. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The CQC System Manager shall instruct applicable CQC staff as to the acceptable level of workmanship required in order to meet Contract requirements.
 - c. Document the results of the preparatory phase meeting by separate minutes prepared by the CQC System Manager and attached to the QC report.
 - d. Perform prior to beginning Work on each definable feature of Work:
 - 1) Review applicable Contract Specifications.
 - 2) Review applicable Contract Drawings.
 - 3) Verify that all materials and/or equipment have been tested, submitted, and approved.
 - 4) Verify that provisions have been made to provide required control inspection and testing.
 - 5) Examine the Work area to verify that all required preliminary Work has been completed and is in compliance with the Contract.
 - 6) Perform a physical examination of required materials, equipment, and sample Work to verify that they are on hand, conform to approved Shop Drawing or submitted data, and are properly stored.
 - 7) Review the appropriate activity hazard analysis to verify safety requirements are met.
 - 8) Review procedures for constructing the Work, including repetitive deficiencies.

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- 9) Document construction tolerances and workmanship standards for that phase of the Work.
 - 10) Check to verify that the plan for the Work to be performed, if so required, has been accepted by Engineer.
2. Initial Phase:
- a. Accomplish at the beginning of a definable feature of Work:
 - 1) Notify Owner at least 48 hours in advance of beginning the initial phase.
 - 2) Perform prior to beginning Work on each definable feature of Work:
 - a) Review minutes of the preparatory meeting.
 - b) Check preliminary Work to verify compliance with Contract requirements.
 - c) Verify required control inspection and testing.
 - d) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Comparison with sample panels is appropriate.
 - e) Resolve all differences.
 - f) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
 - 3) Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
 - 4) The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.
3. Follow-up Phase:
- a. Perform daily checks to verify continuing compliance with Contract requirements, including control testing, until completion of the particular feature of Work.
 - b. Daily checks shall be made a matter of record in the CQC documentation and shall document specific results of inspections for all features of Work for the day or shift.
 - c. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of Work that will be affected by the deficient Work. Constructing upon or concealing nonconforming Work will not be allowed.

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4. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be conducted on the same definable features of Work as determined by Owner if the quality of ongoing Work is unacceptable; or if there are changes in the applicable QC staff or in the onsite production supervision or work crew; or if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.05 CONTRACTOR QUALITY CONTROL PLAN

A. General:

1. Plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used.
2. An interim plan for the first 30 days of operation will be considered.
3. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of Work to be started.
4. Work outside of the features of Work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of Work to be started.

B. Content:

1. Plan shall cover the intended CQC organization for the entire Contract and shall include the following, as a minimum:
 - a. Organization: Description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will implement the three-phase control system (see Paragraph Quality Control Phasing) for all aspects of the Work specified.
 - b. CQC Staff: The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a QC function.
 - c. Letters of Authority: A copy of a letter to the CQC System Manager signed by an authorized official of the firm, describing the responsibilities, and delegating sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop Work which is not in compliance with the Contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters will also be furnished to Owner.

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- d. Submittals: Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers and purchasing agents.
 - e. Testing: Control, verification and acceptance testing procedures for each specific test to include the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required.
 - f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests, including documentation.
 - g. Procedures for tracking deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.
 - h. Reporting procedures, including proposed reporting formats; include a copy of the CQC report form.
- C. Acceptance of Plans: Acceptance of the Contractor's basic and addendum CQC plans is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. Owner reserves the right to require Contractor to make changes in the CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.
- D. Notification of Changes: After acceptance of the CQC plan, Contractor shall notify Engineer, in writing, a minimum of 7 calendar days prior to any proposed change. Proposed changes are subject to acceptance by Engineer.

3.06 CONTRACTOR QUALITY CONTROL REPORT

- A. As a minimum, prepare a CQC report for every 7 calendar days. Account for all days throughout the life of the Contract. Reports shall be signed and dated by CQC System Manager. Include copies of test reports and copies of reports prepared by QC staff.
- B. Maintain current records of quality control operations, activities, and tests performed, including the Work of subcontractors and suppliers.
- C. Records shall be on an acceptable form and shall be a complete description of inspections, the results of inspections, daily activities, tests, and other items including, but not limited to, the following:
 - 1. Contractor and subcontractor and their areas of responsibility.
 - 2. Operating plant equipment with hours worked, idle, or down for repair.

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3. Work performed today, giving location, description, and by whom. When a network schedule is used, identify each phase of Work performed each day by activity number.
4. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
5. Material received with statement as to its acceptability and storage.
6. Identify submittals reviewed, with Contract reference, by whom, and action taken.
7. Offsite surveillance activities, including actions taken.
8. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
9. List instructions given/received and conflicts in the Drawings and/or Specifications.
10. Contractor's verification statement.
11. Indicate a description of trades working on the Project; the number of personnel working; weather conditions encountered; and any delays encountered.
12. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in file work and workmanship comply with the Contract.

3.07 SUBMITTAL QUALITY CONTROL

- A. Submittals shall be as specified in Section 01 33 00, Submittal Procedures. The CQC organization shall be responsible for certifying that all submittals are in compliance with the Contract requirements. Owner will furnish copies of test report forms upon request by Contractor. Contractor may use other forms as approved.

3.08 TESTING QUALITY CONTROL

- A. Testing Procedure:
 1. Perform tests specified or required to verify that control measures are adequate to provide a product which conforms to Contract requirements. Procure services of a licensed testing laboratory. Perform the following activities and record the following data:
 - a. Verify testing procedures comply with contract requirements.
 - b. Verify facilities and testing equipment are available and comply with testing standards.
 - c. Check test instrument calibration data against certified standards.

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- d. Verify recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
 - e. Documentation:
 - 1) Record results of all tests taken, both passing and failing, on the CQC report for the date taken.
 - 2) Include specification paragraph reference, location where tests were taken, and the sequential control number identifying the test.
 - 3) Actual test reports may be submitted later, if approved by Engineer, with a reference to the test number and date taken.
 - 4) Provide directly to Engineer an information copy of tests performed by an offsite or commercial test facility. Test results shall be signed by an engineer registered in the state where the tests are performed.
 - 5) Failure to submit timely test reports, as stated, may result in nonpayment for related Work performed and disapproval of the test facility for this Contract.
- B. Testing Laboratories: Laboratory facilities, including personnel and equipment, utilized for testing soils, concrete, asphalt and steel shall meet criteria detailed in ASTM D3740 and ASTM E329, and be accredited by the American Association of Laboratory Accreditation (AALA), National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation Officials (AASHTO), or other approved national accreditation authority. Personnel performing concrete testing shall be certified by the American Concrete Institute (ACI).

3.09 COMPLETION INSPECTION

- A. CQC System Manager shall conduct an inspection of the Work at the completion of all Work or any milestone established by a completion time stated in the Contract.
- B. Punchlist:
 - 1. CQC System Manager shall develop a punchlist of items which do not conform to the Contract requirements.
 - 2. Include punchlist in the CQC report, indicating the estimated date by which the deficiencies will be corrected.
 - 3. CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Owner.

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4. These inspections and any deficiency corrections required will be accomplished within the time stated for completion of the entire Work or any particular increment thereof if the Project is divided into increments by separate completion dates.

END OF SECTION

SECTION 01 45 33
SPECIAL INSPECTION, OBSERVATION, AND TESTING

PART 1 GENERAL

1.01 SUMMARY

- A. This section covers requirements for Special Inspection, Observation, and Testing required in accordance with Chapter 17 of the 2021 IBC and is in addition to and supplements requirements included in Statement of Special Inspections shown on the Drawings.

1.02 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. American Society of Civil Engineers (ASCE): 7, Minimum Design Loads for Buildings and Other Structures.
 2. International Code Council (ICC):
 - a. International Building Code (IBC).
 - b. Evaluation Service (ICC-ES) Reports and Legacy Reports.

1.03 DEFINITIONS

- A. Agencies and Personnel:
1. Agency Having Jurisdiction (AHJ): Permitting building agency; may be a federal, state, local, or other regional department, or individual including building official, fire chief, fire marshal, chief of a fire prevention bureau, labor department, or health department, electrical inspector; or others having statutory authority. AHJ may be Owner when authorized to be self-permitting by governmental permitting agency or when no governmental agency has authority.
 2. Approved Agency: An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved.
 3. Registered Design Professional in Responsible Charge: An individual who is registered or licensed to practice their respective design profession as defined by statutory requirements of professional registration laws of state or jurisdiction in which Project is to be constructed.
 4. Special Inspector: Qualified person employed by Owner who will demonstrate competence to the satisfaction of AHJ for inspection of a particular type of construction or operation requiring Special Inspection.

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B. Nonstructural Components:

1. Architectural Component Supports: Structural members or assemblies of members which transmit loads and forces from architectural systems or components to structure, including braces, frames, struts, and attachments.
2. Electrical Component Supports: Structural members or assemblies which transmit loads and forces from electrical equipment to structure, including braces, frames, legs, pedestals, and tethers, as well as elements forged or cast as part of component for anchorage.
3. Mechanical and Plumbing Component Supports: Structural members or assemblies which transmit loads and forces from mechanical or plumbing equipment to structure, including braces, frames, skirts, legs, saddles, pedestals, snubbers, and tethers, as well as elements forged or cast as part of component for anchorage.

C. Professional Observation:

1. Does not include or waive responsibility for required Special Inspection or inspections by building official.
2. Requirements are indicated on Statement of Special Inspections provided on the Drawings.
3. Geotechnical Observation: Visual observation of selected subgrade bearing surfaces and installation of deep foundation elements by a registered design professional for general conformance to Contract Documents.
4. Structural Observation: Visual observation of structural system(s) by a registered design professional for general conformance to Contract Documents.

D. Special Inspection:

1. Special Inspection: Inspection required of materials, installation, fabrication, erection, or placement of components and connections requiring special expertise to ensure compliance with approved Contract Documents and referenced standards.
2. Special Inspection, Continuous: Full-time observation of work requiring Special Inspection by an approved Special Inspector who is present in area where the Work is being performed.
3. Special Inspection, Periodic: Part-time or intermittent observation of the Work requiring Special Inspection by an approved Special Inspector who is present in area where the Work has been or is being performed, and at completion of the Work.

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- E. Statement of Special Inspections: Detailed written procedure contained on the Drawings establishing systems and components subject to Special Inspection, Observation, and Testing during construction, type and frequency of testing, extent and duration of Special Inspection, and reports to be completed and distributed by Special Inspector.
- F. Structural Systems and Components:
 - 1. Diaphragm: Component of structural lateral load resisting system consisting of roof, floor, or other membrane or bracing system acting to transfer lateral forces to vertical resisting elements of structure.
 - 2. Drag Strut or Collector: Component of structural lateral load resisting system consisting of diaphragm or shear wall element that collects and transfers diaphragm shear forces to vertical force-resisting elements or distributes forces within diaphragm or shear wall.
 - 3. Seismic-Force-Resisting System: That part of structural lateral load resisting system that has been considered in the design to provide required resistance to seismic forces identified on the Drawings.
 - 4. Shear Wall: Component of structural lateral load resisting system consisting of a wall designed to resist lateral forces parallel to plane of the wall. Unless noted otherwise on the Drawings, load-bearing walls with direct in-plane connections to roof and floors shall be considered to be shear walls.
 - 5. Wind Force Resisting System: That part of the structural system that has been considered in the design to provide required resistance to wind forces identified on the Drawings.

1.04 SUBMITTALS

A. Informational Submittals:

- 1. Contractor's Statement of Responsibility: Form shall be completed by entity responsible for construction of main-force-resisting system listed in Statement of Special Inspections. Refer to Article Supplements located at end of section.

1.05 STATEMENT OF SPECIAL INSPECTIONS REQUIREMENTS

A. Designated Systems for Inspection:

- 1. Seismic-force-resisting systems designated under IBC Section 1705 and subject to Special Inspection under Section 1705: None required.
- 2. Wind-force-resisting systems designated under IBC Section 1705: None required.

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3. Architectural, Plumbing, Mechanical, and Electrical Components subject to Special Inspection under IBC Section 1705.12.5 and Section 1705.12.6 for Seismic Resistance.
- B. Statement of Special Inspections:
1. As included in the Drawings and in support of building permit application, Project-specific requirements were prepared by Registered Design Professional in Responsible Charge. The following identifies elements of inspection, observation, and testing program to be followed in construction of the Work:
 - a. Special Inspection and testing required by IBC Section 1705 and other applicable sections and referenced standards therein.
 - b. Type and frequency of Special Inspection required.
 - c. Type and frequency of testing required.
 - d. Required frequency and distribution of testing and Special Inspection reports to be distributed by Special Inspector to Engineer, Contractor, building official, and Owner.
 - e. Geotechnical Observation to be Performed: Required frequency and distribution of Geotechnical Observation reports by registered design professional to Contractor, building official, and Owner.
 - f. Structural Observations to be Performed: Required frequency and distribution of Structural Observation reports by registered design professional to Contractor, building official, and Owner.
- C. Special Inspection and associated testing of shop fabrication and field construction will be performed by an approved accredited independent agency or by Authority Having Jurisdiction's (AHJ) approved, qualified inspection staff. Owner will secure and pay for services of agency to perform Special Inspection and associated testing.
- D. Code required Special Inspection with associated testing and Professional Observation, as provided in Statement of Special Inspections on the Drawings and further provided in this section, is for benefit of Owner and does not:
1. Relieve Contractor of responsibility for providing adequate quality control measures.
 2. Relieve Contractor of responsibility for damage to or loss of material before acceptance.
 3. Constitute or imply acceptance.
 4. Affect continuing rights of Owner after acceptance of completed Work.
- E. The presence or absence of code required Special Inspector and Professional Observer does not relieve Contractor from Contract requirements.

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- F. Contractor is responsible for additional costs associated with Special Inspection and Testing and Observation when Work is not ready at time identified by Contractor and Special Inspectors and Professional Observer are onsite, but not able to provide contracted services.
- G. Contractor is responsible for associated costs for additional Special Inspection and Testing and Professional Observation by Special Inspectors and Professional Observers required because of rejection of materials of in place Work that cannot be made compliant to Contract Document without additional inspections and observation and testing.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Requirements of the Statement of Special Inspections are provided by the Owner. All other testing and inspections, unless noted otherwise, are provided by Contractor.
- B. Provide access to shop or Site for Special Inspection and Testing and Professional Observation requirements.
- C. Notify Engineer in advance of required Special Inspection and Professional Observation no later than 48 hours prior to date of Special Inspection and Professional Observation.
- D. Provide access for Special Inspector to construction documents.
- E. Retain special inspection records onsite to be readily available for review.
- F. Cooperate with Special Inspector and provide safe access to the Work to be inspected.
- G. Submit Fabricator's Certificates of Compliance for approved fabricators.
- H. Provide reasonable auxiliary services as requested by the Special Inspector. Auxiliary services required include, but not limited to:
 - 1. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests to assist the Special Inspector in performing test/inspections.

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2. Providing storage space for the Special Inspector's exclusive use, such as for storing and curing concrete test samples and delivery of samples to testing laboratories.
 3. Providing the Special Inspector with access to all approved submittals.
 4. Providing security and protection of samples and test equipment at the Project Site.
 5. Provide samples of materials to be tested in required quantities.
- I. Materials and systems shall be inspected during placement where Continuous Special Inspection is required.
- J. Where Periodic Special Inspection is indicated in the Statement of Special Inspections:
1. Schedule inspections for either during or at completion of their placement or a combination or both.
 2. Schedule periodically inspected Work (either inspected during or after its placement) so that corrections can be completed and re-inspected before Work is inaccessible.
 3. Sampling a portion of the Work is not allowed. Schedules shall provide for inspection of all Work requiring periodic inspection.

3.02 SUPPLEMENT

- A. The supplement listed below, following "End of Section," is a part of this specification:
1. Contractor's Statement of Responsibility.

END OF SECTION

SALMON CREEK TREATMENT PLANT
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CONTRACTOR'S STATEMENT OF RESPONSIBILITY

(Project)

(Name of Contracting Company)

(Business Address)

(_____) _____
(Telephone)

(_____) _____
(Fax)

I, (We) hereby certify that I am (we are) aware of the Special Inspection and Testing and Professional Observation requirements contained in Contract Documents for this Project for wind, seismic force-resisting systems, and for components including architectural, mechanical, and electrical components, as listed in Statement of Special Inspections on the Drawings and that:

1. I, (We) aware of the systems and the requirements of the special inspection and acknowledge our responsibility in the implementation of the Statement of Special Inspections for the construction of the following systems:

Facility	Specification	Lateral Force-Resisting System
55 – UV Channel 2		Flat-bottom, ground-supported, reinforced concrete tank with nonsliding base
55 – UV Canopy		Steel ordinary moment frame

3. Control of this Work will be exercised to obtain conformance with Contract Documents approved by building official.
4. Procedures within the Contractor's organization to be used for exercising control of the Work, method and frequency of reporting, and distribution of reports required under Statement of Special Inspections for Project are attached to this statement.
5. I, (We) will provide 48-hour notification to Engineer and approved inspection agency as required for structural tests and Special Inspection for Project.

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6. The following person is hereby identified as exercising control over requirements of this section for the Work designated above:

Name: _____

Qualifications: _____

(Print name and official title of person signing this form)

Signed by: _____

Date: _____

Project Name: _____

**SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. American Association of Nurserymen (AAN): American Standards for Nursery Stock.
 2. Federal Emergency Management Agency (FEMA).
 3. National Fire Prevention Association (NFPA): 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.
 4. Telecommunications Industry Association (TIA); Electronic Industries Alliance (EIA): 568B, Commercial Building Telecommunications Cabling Standard.
 5. U.S. Department of Agriculture (USDA): Urban Hydrology for Small Watersheds.
 6. U.S. Weather Bureau: Rainfall-Frequency Atlas of the U.S. for Durations from 30 Minutes to 24 Hours and Return Periods from 1 year to 100 Years.

1.02 SUBMITTALS

- A. Informational Submittals:
1. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.
 2. Temporary Utility Submittals:
 - a. Electric power supply and distribution plans.
 - b. Water supply and distribution plans.
 3. Temporary Construction Submittals:
 - a. Access Roads: Routes, cross-sections, and drainage facilities.
 - b. Parking area plans.
 - c. Contractor's field office, storage yard, and storage building plans, including gravel surfaced area.
 - d. Fencing and protective barrier locations and details.
 - e. Staging area location plan.
 - f. Traffic (and Pedestrian) Control Plans:
 - 1) Traffic Routing Plan: As specified herein, and proposed revisions thereto.
 - g. Plan for maintenance of existing operations.
 - h. Temporary shoring as required at excavations.

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4. Temporary Control Submittals:
 - a. Noise control plan.
 - b. Dust control plan.
 - c. Plan for disposal of waste materials and intended haul routes.

1.03 MOBILIZATION

- A. Mobilization includes, but is not limited to, these principal items:
 1. Obtaining required permits.
 2. Moving Contractor's field office and equipment required for first month operations onto Site.
 3. Installing temporary construction power, wiring, and lighting facilities.
 4. Providing onsite communication facilities, including telephones.
 5. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
 6. Arranging for and erection of Contractor's work and storage yard.
 7. Posting OSHA required notices and establishing safety programs and procedures.
 8. Having Contractor's superintendent at Site full time.

1.04 PROTECTION OF WORK AND PROPERTY

- A. Comply with Owner's safety rules while on Owner's property.
- B. Keep Owner informed of serious onsite accidents and related claims.
- C. Use of Explosives: No blasting or use of explosives will be allowed onsite.

1.05 VEHICULAR TRAFFIC

- A. Traffic Control Plan: Adhere to submitted traffic control plan. Changes to this plan shall be made only by written approval of appropriate public authority. Secure approvals for necessary changes so as not to delay progress of the Work.
- B. Traffic Routing Plan: Show sequences of construction affecting use of roadways, time required for each phase of the Work, provisions for decking over excavations and phasing of operations to provide necessary access, and plans for signing, barricading, and striping to provide passages for pedestrians and vehicles.

PART 2 PRODUCTS

2.01 PROJECT SIGN

- A. Provide and maintain one, 4-foot-wide by 3-foot-high sign constructed of 3/4-inch exterior high density overlaid plywood. Sign shall bear the name of the Contractor and Project Name. Sign shall be placed near the entrance to the plant and shall provide clear directions to Contractor's field office for deliveries, etc. including contact information. Lettering shall be blue applied on white background by an experienced sign painter. Paint shall be exterior type enamel. Information to be included will be confirmed by Owner after Notice of Award.

PART 3 EXECUTION

3.01 TEMPORARY UTILITIES

- A. Power:
 - 1. Electric power will be available at the Site. Determine type and amount available and make arrangements for obtaining and paying for temporary electric power service.
 - 2. Cost of electric power will be borne by Owner.
- B. Lighting: Provide temporary lighting to meet applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.
- C. Heating, Cooling, and Ventilating:
 - 1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage due to temperature or humidity. Costs for temporary heat shall be borne by Contractor.
 - 2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
 - 3. Pay all costs of installation, maintenance, operation, removal, and fuel consumed. Provide portable unit heaters, complete with controls, oil- or gas-fired, and suitably vented to outside as required for protection of health and property.
 - 4. If permanent natural gas piping is used for temporary heating units, do not modify, or reroute gas piping without approval of utility company.
 - 5. Provide separate gas metering as required by utility.

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D. Water:

1. Owner will provide a place of temporary connection for construction water at Site. Provide temporary facilities and piping required to bring water to point of use and remove when no longer needed. Construction water provided to the Contractor will be treated secondary effluent.
2. Treated secondary effluent shall not be used for backfill or subgrade preparation or water curing of concrete. Contractor must provide their own potable water for these uses.
3. Make arrangements for and bear costs of providing potable water for drinking water by construction personnel during construction.

E. Sanitary and Personnel Facilities: Provide and maintain facilities for Contractor's employees, Subcontractors, and other onsite employers' employees. Service, clean, and maintain facilities and enclosures.

F. Telephone Service:

1. Contractor: Arrange and provide onsite telephone/cellular service for use during construction. Pay costs of installation and monthly bills.
2. No incoming calls allowed to Owner's plant telephone system.

G. Internet Service:

1. Contractor: Arrange and provide onsite internet service for use during construction. Pay costs of installation and monthly bills.
2. Contractor will be responsible for all costs associated with providing any service boosting equipment required to maintain adequate onsite service.

H. Fire Protection: Furnish and maintain on Site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of NFPA 241.

3.02 PROTECTION OF WORK AND PROPERTY

A. General:

1. Perform Work within right-of-way and easements in a systematic manner that minimizes inconvenience to property owners and the public.
2. No residence or business shall be cut off from vehicular traffic for a period exceeding 4 hours unless special arrangements have been made.

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3. Maintain in continuous service existing oil and gas pipelines, underground power, telephone or communication cable, water mains, irrigation lines, sewers, poles and overhead power, and other utilities encountered along line of the Work, unless other arrangements satisfactory to owners of said utilities have been made.
 4. Where completion of the Work requires temporary or permanent removal or relocation of existing utility, coordinate activities with owner of said utility and perform work to their satisfaction.
 5. Protect, shore, brace, support, and maintain underground pipes, conduits, drains, and other underground utility construction uncovered or otherwise affected by construction operations.
 6. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
 7. In areas where Contractor's operations are adjacent to or near a utility, such as gas, telephone, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by Contractor.
 8. Notify property owners and utility offices that may be affected by construction operation at least 2 days in advance before exposing a utility, obtain utility owner's permission. Should service of utility be interrupted due to Contractor's operation, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
 9. Do not impair operation of existing sewer system. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, or other sewer structures.
 10. Maintain original Site drainage wherever possible.
- B. Site Security: Provide and maintain additional temporary security fences as necessary to protect the Work and Contractor-furnished products not yet installed.
- C. Barricades and Lights:
1. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alleyways, inside and outside of fenced area, and as required to ensure public safety and the safety of Contractor's employees, other employer's employees, and others who may be affected by the Work.
 2. Provide to protect existing facilities and adjacent properties from potential damage.
 3. Locate to enable access by facility operators and property owners.

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4. Protect streets, roads, highways, and other public thoroughfares that are closed to traffic by effective barricades with acceptable warning signs.
 5. Locate barricades at the nearest intersecting public thoroughfare on each side of blocked section.
- D. Signs and Equipment: Provide signs and equipment consistent with the Contractor's traffic plan.
- E. Trees and Plantings:
1. Protect from damage and preserve trees, shrubs, and other plants outside limits of the Work and within limits of the Work, which are designated on the Drawings to remain undisturbed.
 - a. Where practical, tunnel beneath trees when on or near line of trench.
 - b. Employ hand excavation as necessary to prevent tree injury.
 - c. Do not stockpile materials or permit traffic within drip lines of trees.
 - d. Provide and maintain temporary barricades around trees.
 - e. Water vegetation as necessary to maintain health.
 - f. Cover temporarily exposed roots with wet burlap, and keep burlap moist until soil is replaced around roots.
 - g. No trees, except those specifically shown on the Drawings to be removed, shall be removed without written approval of Engineer.
 - h. Dispose of removed trees in a legal manner off the Site.
 2. Balling and burlapping of trees indicated for replacement shall conform to recommended specifications set forth in the American Standards for Nursery Stock, published by American Association of Nurserymen. Balls shall be firm and intact and made-balls will not be accepted. Handle ball and burlap trees by ball and not by top.
 3. In event of damage to bark, trunks, limbs, or roots of plants that are not designated for removal, treat damage by corrective pruning, bark tracing, application of a heavy coating of tree paint, and other accepted horticultural and tree surgery practices.
 4. Replace each plant that dies as a result of construction activities.
- F. Existing Structures:
1. Where Contractor contemplates removal of small structures such as mailboxes, signposts, and culverts that interfere with Contractor's operations, obtain approval of property owner and Engineer.
 2. Move mailboxes to temporary locations accessible to postal service.
 3. Replace items removed in their original location and a condition equal to or better than original.

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- G. Finished Construction: Protect finished floors and concrete floors exposed as well as those covered with composition tile or other applied surfacing.
- H. Waterways: Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.
- I. Dewatering: See Section 31 23 19.01, Dewatering, for dewatering requirements.
- J. Archaeological and Historical Finds:
 - 1. An Inadvertent Discovery Plan (IDP) has been prepared for the Project and shall be complied with for all Work. See supplement to this section.
 - 2. Brief or train construction crews on the contents and importance of the IDP for human remains, items of cultural patrimony, and intact archaeological deposits.
 - 3. Archaeological monitoring is expected to be required by State of Washington and Owner will furnish archaeological monitor during excavation of ground at UV facility. Coordinate with Resident Project Representative who will schedule archaeological monitor. Provide 7 days advance notice of anticipated initiation of excavation.
 - 4. Archaeological or historical objects, such as ruins, sites, buildings, artifacts, fossils, or other objects of antiquity that may have significance from a historical or scientific standpoint, which may be encountered by the Contractor, shall not be further disturbed. The Contractor shall immediately notify the Engineer of any such finds.
 - a. The Engineer will determine if the material is to be salvaged. The Contractor may be required to stop Work in the vicinity of the discovery until such determination is made. The Engineer may require the Contractor to suspend Work in the vicinity of the discovery until salvage is accomplished.
 - b. If the Engineer finds that the suspension of Work in the vicinity of the discovery increases or decreases the cost or time required for performance of any part of the Work under this Contract, the Engineer will make an adjustment in payment or the time required for the performance of the Work in accordance with Section 01 26 00, Contract Modification Procedures, and the General Conditions.

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5. Inadvertent Discovery of Human Skeletal Remains: If human skeletal remains are encountered by the Contractor, they shall not be further disturbed. The Contractor shall immediately notify the Engineer of any such finds, and shall cease all work adjacent to the discovery, in an area adequate to provide for the total security and protection of the integrity of the skeletal remains. The Engineer may require the Contractor to suspend Work in the vicinity of the discovery until final determinations are made and removal of the skeletal remains is completed.
 - a. If the Engineer finds that the suspension of Work in the vicinity of the discovery increases or decreases the cost or time required for performance of any part of the Work under this Contract, the Engineer will make an adjustment in payment or the time required for the performance of the Work in accordance with Section 01 26 00, Contract Modification Procedures, and the General Conditions.
6. Payment: All costs to comply with this Article and for the protection and repair specified in this Article, unless otherwise stated, are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the Lump Sum Bid prices of the Contract.

K. Endangered and Threatened Species:

1. Take precautions necessary and prudent to protect native endangered and threatened flora and fauna.
2. Notify Engineer of construction activities that might threaten endangered and threatened species or their habitats.
3. Engineer will mark areas known as habitats of endangered and threatened species prior to commencement of onsite activities.
4. Additional areas will be marked by Engineer as other habitats of endangered and threatened species become known during construction.

3.03 TEMPORARY CONTROLS

A. Air Pollution Control:

1. Minimize air pollution from construction operations.
2. Burning of waste materials, rubbish, or other debris will not be permitted on or adjacent to Site.
3. Conduct operations of dumping rock and of carrying rock away in trucks to cause a minimum of dust. Give unpaved streets, roads, detours, or haul roads used in construction area a dust-preventive treatment or periodically water to prevent dust. Strictly adhere to applicable environmental regulations for dust prevention.

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4. Provide and maintain temporary dust-tight partitions, bulkheads, or other protective devices during construction to permit normal operation of existing facilities. Construct partitions of plywood, insulating board, plastic sheets, or similar material. Construct partitions in such a manner that dust and dirt from demolition and cutting will not enter other parts of existing building or facilities. Remove temporary partitions as soon as need no longer exists.

B. Water Pollution Control:

1. Do not cause or permit action to occur which would cause an overflow to existing waterway.
2. Disposal of construction-generated water shall meet the requirements of Section 31 23 19.01, Dewatering. Obtain all necessary permits and approvals for disposal location and quantities from Clark County. Any fees associated with disposal will be borne by Contractor.
3. Prior to commencing excavation and construction, obtain Engineer's agreement with detailed plans showing procedures intended to handle and dispose of sewage, groundwater, and dewatering pump discharges.
4. Comply with all local ordinances for stormwater flow and surface runoff.
5. Do not dispose of volatile wastes, such as mineral spirits, oil, chemicals, or paint thinner, in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.

C. Erosion, Sediment, and Flood Control:

1. Provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect the Work and existing facilities from flooding during construction period.
2. In coordination with RPR, provide and maintain temporary wheel wash or other measures near the work area to prevent vehicles from tracking dirt onto asphalt surfaces.
3. Coordinate requirements with Section 01 57 13, Temporary Erosion and Sediment Control, of these Specifications.

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3.04 STORAGE YARDS AND BUILDINGS

- A. Coordinate requirements with Section 01 61 00, Common Product Requirements.
- B. Temporary Storage Yards:
 - 1. Construct temporary storage yards for storage of products that are not subject to damage by weather conditions.
 - 2. Temporary gravel surfacing shall not exceed 6-inch depth.
 - 3. Do not store bulk fuel within the Project limits.
- C. Temporary Storage Buildings:
 - 1. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored.
 - 2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
 - 3. Store combustible materials (paints, solvents, fuels) in a well-ventilated and remote building meeting safety standards.

3.05 ACCESS ROADS

- A. Construct access roads as shown and within easements, rights-of-way, or Project limits. Use existing roads where shown.
- B. Maintain drainage ways. Install and maintain culverts to allow water to flow beneath access roads. Provide corrosion-resistant culvert pipe of adequate strength to resist construction loads.
- C. Provide geotextile, gravel, crushed rock, or other stabilization material to permit access by all motor vehicles at all times.
- D. Maintain road grade and crown to eliminate potholes, rutting, and other irregularities that restrict access.
- E. Coordinate with Engineer detours and other operations affecting traffic and access. Provide at least 72 hours' notice to Engineer of operations that will alter access to Site.
- F. Where access road crosses existing fences, install and maintain gates.
- G. Upon completion of construction, restore ground surface disturbed by access road construction to original grade.

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3.06 PARKING AREAS

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, property owner operations, or construction operations.
- B. Provide parking facilities for personnel working on Project. No employee or equipment parking will be permitted on existing paved areas except as shown on the Drawings.
- C. Use staging areas shown on the Drawings for parking of Contractor's and Contractor's employees' vehicles. Off-site staging area may be required to be provided by Contractor to provide adequate parking.
- D. The Contractor is encouraged to develop a temporary Park and Ride lot. If implemented, the Contractor should encourage construction workers to carpool to the Park and Ride lot where the Contractor would provide a bus to transport workers to the construction Site.

3.07 VEHICULAR TRAFFIC

- A. Notify fire department and police department before closing access road for all excavation that limits access through the plant roadways. Conduct operations with the least interference to fire equipment access, and at no time prevent such access unless otherwise authorized.

3.08 CLEANING DURING CONSTRUCTION

- A. In accordance with General Conditions, as may be specified in other Specification sections, and as required herein.
- B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep floors (basins, tunnels, platforms, walkways, roof surfaces), and pick up and dispose of debris.
- C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish. At least weekly, dispose of such waste materials, debris, and rubbish offsite.
- D. At least weekly, brush sweep entry drive, roadways, and other streets and walkways affected by the Work and where adjacent to the Work.

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3.09 SUPPLEMENTS

- A. The supplements listed below, following “End of Section,” are a part of this specification:
1. Archaeological Monitoring Plan and Inadvertent Discovery Plan for UV System Replacement Project, Clark County, Washington.
 2. Archaeological Monitoring Permit.

END OF SECTION

**ARCHAEOLOGICAL MONITORING PLAN AND
INADVERTENT DISCOVERY PLAN
FOR THE
SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT PROJECT,
CLARK COUNTY, WASHINGTON**

DAHP Project No. 2017-12-08780

A I
N W

Prepared for
Discovery Clean Water Alliance
Vancouver, Washington

October 21, 2025; *Revised December 15, 2025*

REPORT NO. 5445

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**ARCHAEOLOGICAL MONITORING PLAN AND
INADVERTENT DISCOVERY PLAN
FOR THE
SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT PROJECT**

INTRODUCTION

The Discovery Clean Water Alliance (the Alliance) is upgrading the Salmon Creek Treatment Plant (SCTP) ultraviolet (UV) disinfection facility in unincorporated Clark County, Washington (Figure 1). The project includes the replacement of the UV disinfection equipment in UV Channel 1 and the construction of a new UV Channel 2 (Figures 2 and 3). The replacement UV facility will integrate with the existing yard piping and controls with the existing SCADA software operating system for the plant. All construction, equipment replacement, modifications, and upgrades will take place entirely within the existing treatment facility's fenced area. The construction for the UV facility is in an area where deeply buried archaeological material might be present. Native soils are anticipated to be encountered approximately 10 feet (ft) (3 meters [m]) below the surface.

The project has funding through the Environmental Protection Agency (EPA) Community Grant program and is subject to Section 106 of the National Historic Preservation Act, with the EPA as the lead federal agency. Jacobs Engineering Group Inc. (Jacobs), on behalf of the Alliance, retained Archaeological Investigations Northwest, Inc. (AINW), to provide archaeological management services as needed for the project.

The EPA, to address input they received through their Section 106 consultation, requires the project have an archaeological inadvertent discovery plan and provide for archaeological monitoring during construction, including the preparation of a monitoring report. This archaeological monitoring and inadvertent discovery plan is partial fulfillment of these EPA requirements. The archaeological monitoring plan is pages 2 and 3 and the archaeological inadvertent discovery plan is page 4 of this document. The list of agencies that may need to be contacted and their contact information are presented on pages 5 and 6. Figures describing the project area are at the end of this document.

MONITORING PLAN

Notification

AINW will make notifications and communicate via email, unless the Washington State Department of Archaeology and Historic Preservation (DAHP) or a Tribe requests AINW to communicate via telephone. The following procedures will be facilitated by the Alliance and Jacobs.

- AINW will provide notification to Tribes prior to the start of monitoring. If there is a break in the work, that will also be communicated, as will the restart of work.
- AINW will prepare weekly summaries of field results for weeks in which monitoring occurs and email the summaries to Jacobs, the Alliance, the EPA, the DAHP and Tribes.
- If requested by DAHP or Tribes, a conference call to discuss the fieldwork will be arranged by AINW. AINW will make the arrangements for the conference call and notify Jacobs, the Alliance, the EPA, and DAHP if they did not request the meeting
- Tribes or DAHP must contact the Alliance Resident Project Representative (RPR) (see Contact List) to arrange to visit the site. Field visits during construction will need to be prearranged with the Alliance. The Alliance will coordinate with AINW to host the visit.

Pre-construction Field Meeting Presentation

Prior to construction activities, Jacobs will arrange a pre-construction field meeting attended by the AINW archaeologist, construction supervisors and excavator operators, and other project personnel. An AINW archaeologist familiar with the project will facilitate the agenda to review when the archaeological monitor is required on-site and the protocols to be followed if an inadvertent discovery occurs, and to finalize project coordination for providing a monitor on-site.

Communication is critical to the success of the monitoring plan to ensure a monitor is present when needed. The roles and responsibilities of the monitor and other project personnel must be defined at the pre-construction field meeting.

Objectives of the pre-construction field meeting are the following.

- Update the list of contacts.
- Identify the responsibility of each party—contractor, archaeologist, Tribe(s), and others.
- Determine the scheduling procedures for archaeologists. The individual who will make the initial request and the period of advance notice to be given will be agreed upon by the archaeologist and the contractor.
- Communicate safety procedures that need to be followed while on site, including necessary personal protective equipment.

On-Site Monitoring

When is a monitor required?

An archaeological monitor is required when native soil is visible beneath the fill *or* excavations have reached 10 ft (3 m) below the surface, whichever occurs first.

Methods

If a monitor is required (see above), ground-disturbing work affecting native soil cannot begin until the archaeological monitor is present to observe the work.

Each day the monitor(s) is at the work site, the monitor will record descriptions of activities monitored, excavation equipment, sediments, and archaeological material, if any is found, in field notes and with photographs.

The archaeological monitor has the authorization of the Alliance to direct or halt excavation to investigate a potential archaeological find.

If excavation occurs in native soil, approximately 5 gallons of sediment per each 50-centimeter (20-inch) depth of excavation will be screened by AINW for artifacts using nested 6.4- and 3.2-millimeter (¼- and ⅛-in) mesh hardware cloth. A second AINW archaeologist may be on-site to assist with the screening.

If AINW's archaeological monitor observes occasional finds of artifacts or artifacts in disturbed sediments, the find will not be considered potentially significant. Ground-disturbing work will be allowed to continue after the AINW's archaeological monitor has documented the find. To prevent distribution of archaeological material, a non-significant artifact may be temporally held on-site and reburied in the project area. A significant artifact would be a biface, stone mortar, or similar tool, and these may be collected.

If a feature, intact archaeological deposit, or potentially intact archaeological deposit is encountered, the Inadvertent Discovery Plan must be initiated.

A weekly status report (email) will be prepared by an AINW professional archaeologist and submitted to Jacobs, the Alliance, the EPA, the DAHP, and consulted Tribes. The email will include a description of the ground-disturbing work, sediments encountered, archaeological material (if any) and state the amount of sediment screened.

Monitoring Report

Upon completion of ground-disturbing work and if an archaeological monitor was required on-site, AINW will prepare an archaeological monitoring report to meet Section 106 compliance and DAHP's reporting standards. The report will include maps showing where monitoring occurred and who monitored and the date they monitored and describe the activity monitored, the sediments, and the archaeological material encountered, if any was present.

INADVERTENT DISCOVERY PLAN

Inadvertent discoveries may include human remains or funerary objects; stone tools or debitage (i.e., an arrowhead, stone chips, cobbles with flakes removed) in a cluster; bones or small pieces of bone; an area of charcoal or very dark stained soil with artifacts; an accumulation of shell, burned rocks, or other food-related materials; clusters of tin cans; ceramic artifacts, or bottles that appear to be older than 50 years; buried railroad tracks; or other industrial materials. Inadvertent discoveries may occur while an archaeologist is present, or while an archaeologist is not on-site. The list of contacts is attached.

If the discovery is archaeological or potentially archaeological material and not human or potential human remains, ground-disturbing activities must be halted within 10 meters (m) (30 feet [ft]) of the discovery. Notify the Alliance RPR or on-site supervisor if the AINW archaeologist is not present. The RPR or on-site archaeologist will contact AINW to confirm the find is archaeological.

Secure the location and then ground-disturbing work can continue outside the 30-m (100-ft) protective zone. Work that does not cause ground disturbance and will not affect the discovery can occur within the protective zone. No ground disturbing work or work that will affect the discovery can occur without the Alliance's authorization.

The discovery will not be photographed, touched, moved, or further disturbed unless directed to do so by the AINW archaeologist, the Alliance or person with legal authority (for example, Sheriff, Medical Examiner, DAHP/State Physical Anthropologist). Shield the find from the view. Do not discuss the find with the public or media.

If an inadvertent discovery includes human skeletal remains, or bones or materials possibly representing human remains or a burial, the following protocol must be followed.

All ground-disturbing work must stop. Ground-disturbing work for the project cannot resume without authorization from the Alliance. A 10-m (30-ft) or larger protective zone must be established around the find. Entrance to the protective zone must only be for actions strictly necessary for the operation of the SCTP.

The find must not be photographed, touched, moved, or further disturbed unless directed by the AINW archaeologist, the Alliance or person with legal authority (for example, Sheriff, Medical Examiner, DAHP/State Physical Anthropologist). Shield the find from the view. Do not discuss the find with the public or media.

If an AINW archaeologist is not on site, the Alliance or the on-site supervisor may contact AINW so that the identification as a human skeletal remain can be confirmed. As soon as a find is determined to be human or likely to be human, the Alliance, with AINW facilitating, will contact the Clark County Medical Examiner and the Clark County Sheriff's Office as quickly as possible (do *not* call 911) and notify the EPA and DAHP.

The Clark County Medical Examiner will take jurisdiction of any human skeletal remains and determine if they are forensic or non-forensic. If the Medical Examiner determines the remains are non-forensic, they will contact DAHP. DAHP will take jurisdiction over all non-forensic human skeletal remains.

CONTACTS

EPA

Megan Browning, Community Grants Program Coordinator
Browning.megan@epa.gov
Phone 503-326-2715

ALLIANCE

Bob Sanguinetti, Resident Project Representative (RPR), Construction Manager
Phone: (360) 993-8834

AINW

Teresa Trost, M.A., R.P.A., Project Manager
Archaeological Investigations Northwest, Inc.
Phone: 971-645-2103
E-mail: teresa@ainw.com
Office : 503-761-6605

Eva Hulse, Ph.D., R.P.A. (Alternate)
(same)
Phone : 971-645-1939
E-mail : eva@ainw.com

CLARK COUNTY MEDICAL EXAMINER

Phone: 564-397-8405
E-mail: medical.examiner@clark.wa.gov

CLARK COUNTY SHERIFF'S OFFICE

John Horch
Phone: 564-397-2211
E-mail: sheriff@clark.wa.gov
*Do not call 911

STATE PHYSICAL ANTHROPOLOGIST

Guy Tasa
Phone: 360-790-1633
E-mail: guy.tasa@dahp.wa.gov

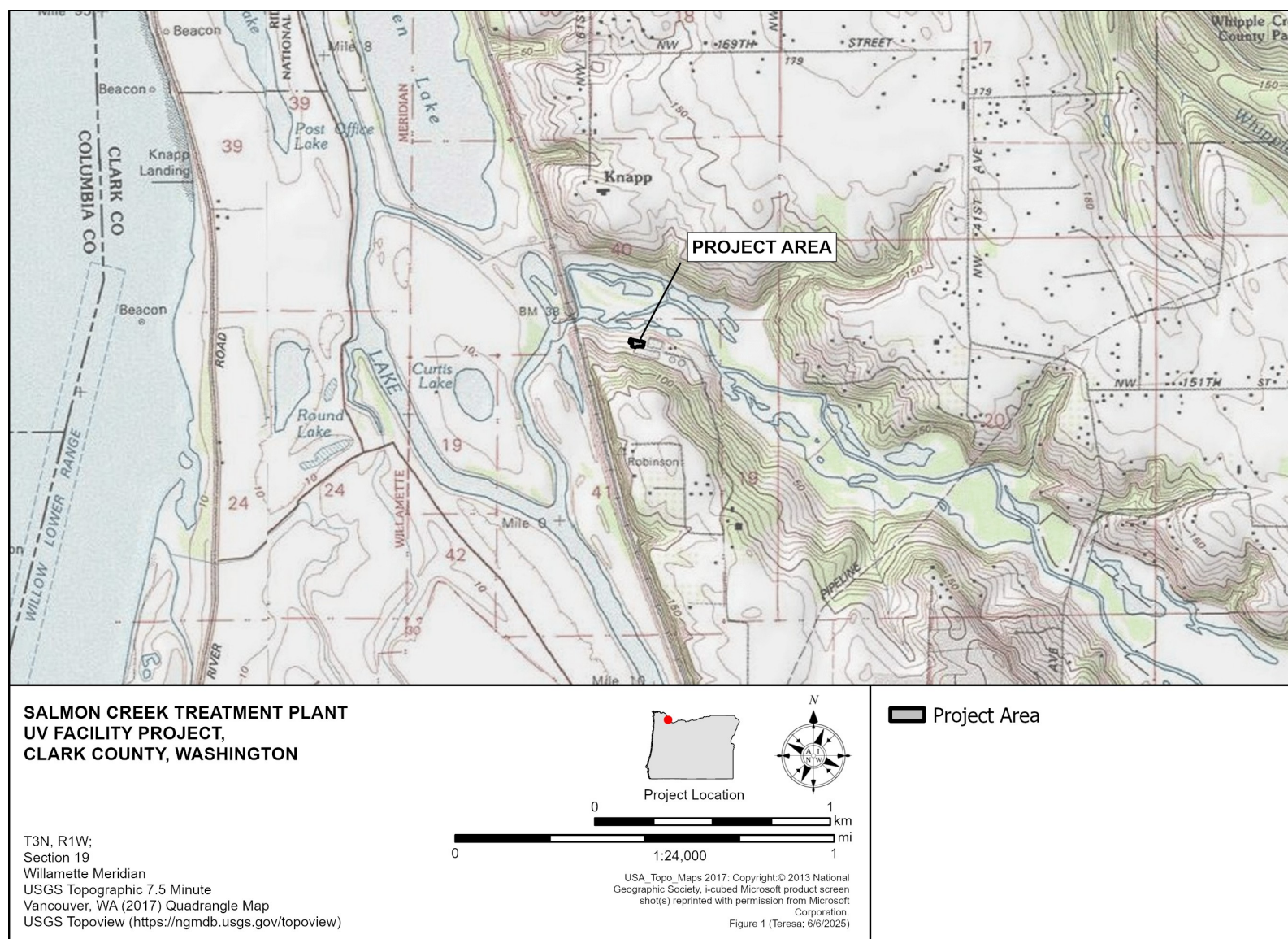
DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION

Rob Whitlam
State Archaeologist
Phone: 360-890-2615
E-mail: rob.whitlam@DAHP.wa.gov

Allyson Brooks
State Historic Preservation Officer
Phone: 360-480-6922
E-mail: allyson.Brooks@DAHP.wa.gov

Tribal Contacts:

James Gordon, THPO Cowlitz Indian Tribe jgordon@cowlitz.org, 360-957-3004	Dave Harrelson, THPO Confederated Tribes of the Grand Ronde thpo@grandronde.org Chris Bailey, Cultural Protection Specialist 503-879-1675
Lawrence Squiemphen, III, THPO Confederated Tribes of Warm Springs 106review@ctwsbnr.org David Witt, Review and Compliance Specialist (503) 894-6618	The Honorable Tony Johnson, Chair Chinook Indian Tribe office@chinooknation.org, 360.875.6670
Rose Ferri, Interim THPO Confederated Tribes and Bands of the Yakama Nation Rose_Ferri@yakama.com, 509-307-2009 Casey Barney, Program Manager Cultural Resources Casey_Barney@yakama.com, 509-865-5121	Brinn Marri, THPO Chehalis Tribe bmarri@chehalis tribe.org, 360.709.1768 Dan Penn, Historic Preservation Office dpenn@chehalis tribe.org, 360-709-1747



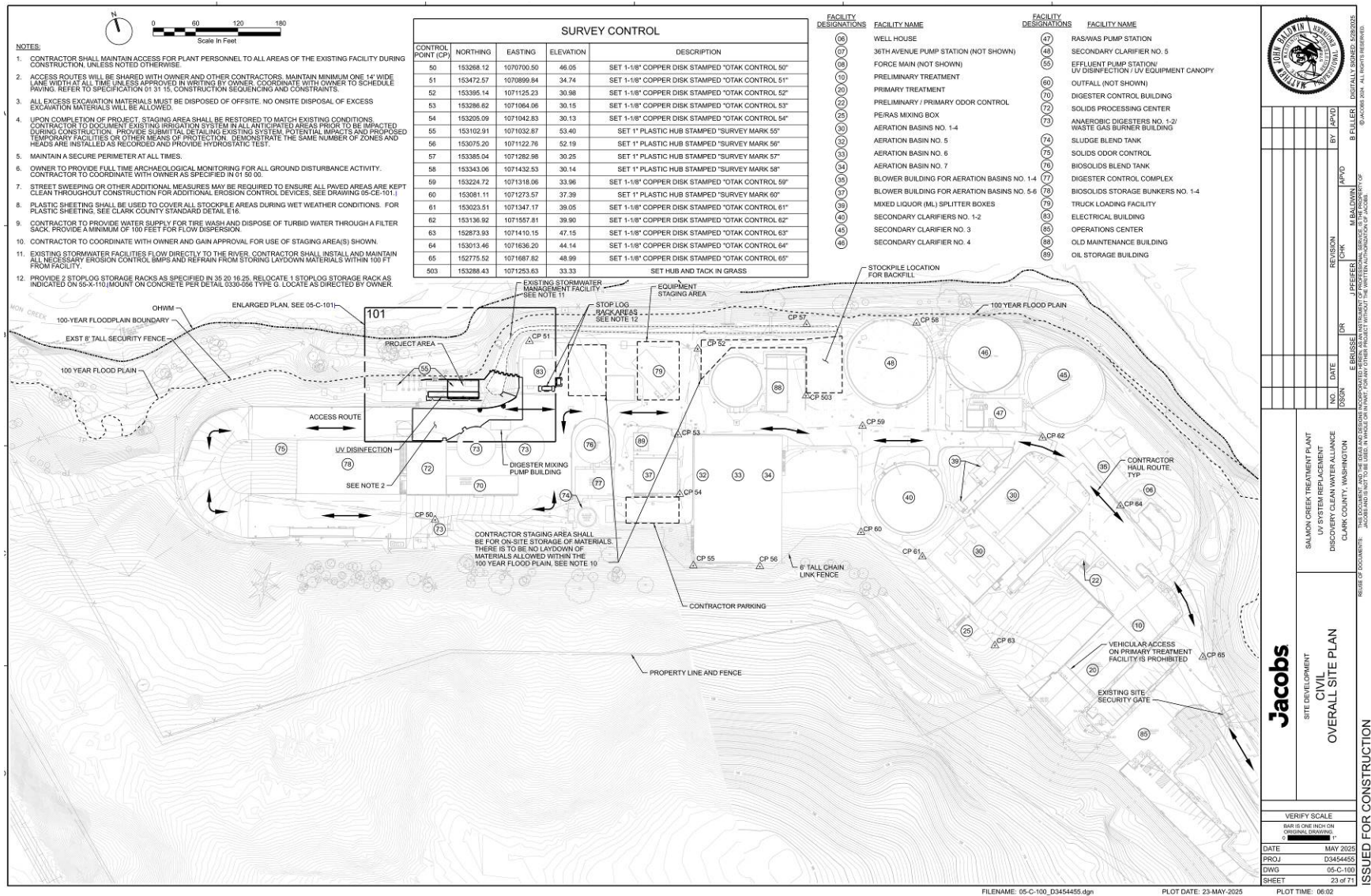


Figure 2. Overall site plan for the UV facility. Provided by Jacobs.

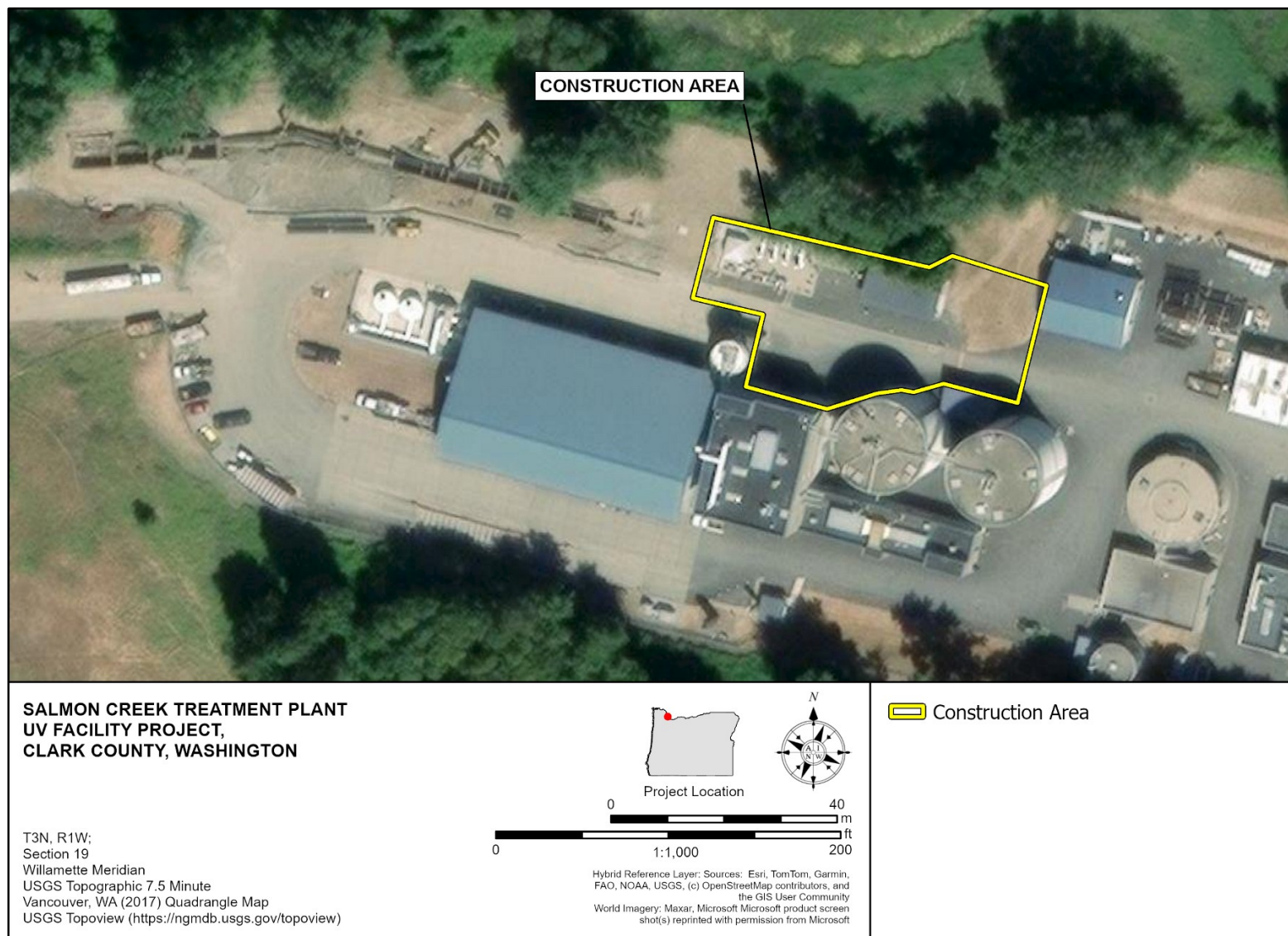


Figure 3. Construction Area shown on aerial image



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

**ARCHAEOLOGICAL MONITORING
PERMIT NO: 2022-09**

Archaeological sites:	45CL99 and -1410
Individual Responsible for carrying out the terms and conditions of the permit:	John M. Peterson Discovery Clean Water Alliance
Individual responsible for field investigations:	Teresa Trost AINW
Nature of work:	Monitoring
Repository in which collected records and	Burke Museum
Date fieldwork to begin:	Upon receipt
Date fieldwork shall end:	December 31 st 2025
Period of analysis:	Concurrent through December 31 st 2025
Date final report due:	December 31 st 2025

Special Conditions:

1. Follow protocols stated in permit application of February 2022
2. Provide 72 hours advanced notice to Tribes and DAHP of start date and time
3. Allow for on-site visits from DAHP and Tribal representatives
4. Provide pdf copy of draft and final reports & updated site form to consulted parties, Tribes, & DAHP
5. Report must meet DAHP's Survey & Inventory Standards; include catalog and DAHP permit number
6. If human remains are encountered, stop work, secure the area, notify the county medical examiner, police, DAHP, & affected Tribes per RCW 27.44.055

Issued this 29th day of March 2022.

Lance Wollwage

Lance Wollwage
Assistant State Archaeologist



SECTION 01 57 13
TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.01 SUMMARY

- A. This section covers Work to implement structural and nonstructural Best Management Practices (BMPs) to control soil erosion by wind or water and keep eroded sediments and other construction-generated pollutants from moving off Project Sites. Requirements described in this specification and shown on the Drawings are part of the Project Temporary Erosion and Sediment Control Plan (TESC Plan) and are the minimum for all Project construction sites and conditions. This specification covers all Project activities, including material sources, disposal sites, and offsite mitigation areas, unless specific project activities are excluded elsewhere in this specification or in other Contract Documents controlling the Work.
- B. National Pollutant Discharge Elimination System: Comply with Federal, state, and local laws, rules and regulations, and the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit or Permits applicable to the project. A copy of the Project's General Construction Permit, if applicable to the Project, is available from Owner. NPDES General Construction permits are required on projects that involve disturbance of 1 acre or more with potential to discharge stormwater to surface waters.
- C. Other Regulations: A local government erosion and sediment control permit may apply and some local agency requirements may be more stringent than this specification. Adequate erosion and sediment control is essential for complying with the federal Endangered Species Act where construction runoff enters waters inhabited by protected species.

1.02 REFERENCES

- A. Activities shall conform to the Clark County Code, the 2021 Clark County Stormwater Manual, and the Drawings. In the event of a conflict, the more stringent requirement shall apply.
- B. The following is a list of standards that may be referenced in this section:
 - 1. American Association of State Highway and Transportation Officials (AASHTO): M252, Standard Specification for Corrugated Polyethylene Drainage Pipe.

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2. ASTM International (ASTM):
 - a. D638, Standard Test Method for Tensile Properties of Plastics.
 - b. D2974, Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils.
 - c. D3776/D3776M, Standard Test Methods for Mass Per Unit Area (Weight) of Fabric.
 - d. D4355, Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus.
 - e. D4397, Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
 - f. D4491, Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
 - g. D4533, Standard Test Method for Trapezoid Tearing Strength of Geotextiles.
 - h. D4632/D4632M, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
 - i. D4751, Standard Test Method for Determining Apparent Opening Size of a Geotextile.
 - j. D6241, Standard Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe.
 - k. D6459, Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Performance in Protecting Hillslopes from Rainfall-Induced Erosion.
 - l. D6460, Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Performance in Protecting Earthen Channels from Stormwater-Induced Erosion.
 - m. D6475, Standard Test Method for Measuring Mass Per Unit Area of Erosion Control Blankets.
 - n. D7322, Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Ability to Encourage Seed Germination and Plant Growth Under Bench-Scale Conditions.
 - o. D7367, Standard Test Method for Determining Water Holding Capacity of Fiber Mulches for Hydraulic Planting.
3. Department of Ecology, State of Washington.
4. National Weather Service:
 - a. Precipitation-Frequency of the United States by State/Territory, 2012.
 - b. Precipitation Frequency Data Server, 2012.
5. North American Weed Management Association (NAWMA).
6. U.S. Department of Agriculture, Natural Resources Conservation Service: *Urban Hydrology for Small Watersheds*; 1986. Technical Release 55.

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7. U.S. Environmental Protection Agency:
 - a. Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites, 2007. EPA-833-R-06-004.
 - b. National Menu of BMPs, 2012.
8. Washington Department of Transportation (WSDOT) Standard Specifications 2025.

1.03 SYSTEM DESCRIPTION

A. Erosion and Sediment Control:

1. Provide, maintain, and operate temporary facilities to control erosion and sediment releases during construction period.
2. Design erosion and sediment controls to handle peak runoff resulting from 25-year, 24-hour storm event based on National Weather Service: Precipitation Frequency Data Server.
3. Size temporary stormwater conveyances based on procedures presented in U.S. Department of Agriculture, Natural Resources Conservation Service: Urban Hydrology for Small Watersheds, 1986. Technical Release 55.

B. Erosion and Sediment Control (ESC) Lead:

1. Identify the ESC Lead at the preconstruction discussions and in the TESC Plan. The ESC Lead shall have certification in construction site erosion and sediment control from a course approved by Owner.
2. The ESC Lead shall implement the TESC Plan including, but not limited to:
 - a. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the TESC Plan to assure continued performance of their intended function. Damaged or inadequate TESC BMPs shall be corrected immediately.
 - b. Updating TESC Plan to reflect current field conditions.
 - c. Terminating TESC Plan.
3. When a TESC Plan is included in the Contract Plans, ESC Lead shall also inspect all areas disturbed by construction activities, all onsite erosion and sediment control BMPs, all stormwater discharge points, and all temporarily stabilized inactive sites per schedule in the Construction Stormwater Discharge Permit(s) or as directed by Engineer. Complete erosion and sediment control inspection form provided by water resource agency or Owner for each inspection and submit a copy to Engineer no later than end of the next working day following inspection.

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C. Personnel Training:

1. Prior to commencement of construction, applicable personnel must have an understanding of the Construction Stormwater Discharge Permit's requirements and their specific responsibilities under the permit. At a minimum, personnel must be trained to understand the following as it relates to the scope of their job duties:
 - a. The location of all stormwater controls and how to maintain them.
 - b. Procedures for complying with the pollution prevention requirements.
 - c. Procedures for conducting inspections, recording findings, and taking corrective action.

D. Temporary Erosion and Sediment Control Plan (Stormwater Pollution Prevention Plan, SWPPP):

1. A TESC Plan is to be furnished by the Contractor, which helps fulfill part of the plan requirement of the NPDES Permit. The Contract Documents include erosion and sediment control drawings as a basis for the TESC plan. Additional or revised erosion and sediment control features, not shown on the TESC Drawings, may be required depending on Contractor's methods of operation and schedule.
2. For each phase of the scheduled work, indicate in the TESC Plan all the BMPs proposed and installed for erosion and sediment control to minimize clearing, stabilize exposed soil, divert, or temporarily store flows, limit runoff from exposed areas, and filter transported sediment. Include all temporary slopes, constructed for staging or other reasons, which may not have been identified in the original Contract plans. Refer to the current local jurisdiction's erosion and sediment control manual.
3. Some TESC Plan required elements typically required by NPDES permits:
 - a. Narrative Site Description:
 - 1) Nature of construction activity planned for the Site.
 - 2) Estimates of total site area and the areas of the Site expected to be disturbed.
 - 3) Soil types found onsite and their erosion potential.
 - 4) The types of fill materials to be used.
 - 5) Timetable for sequence of major construction events.
 - b. Site Map:
 - 1) All areas of development.
 - 2) Drainage patterns.
 - 3) Areas of soil disturbance, including pre-development and post-development elevation contours.
 - 4) Areas used for storage of soils or wastes.

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- 5) Areas where vegetative practices are to be implemented.
 - 6) Location of all erosion and sediment control BMP or structures.
 - 7) Location of all impervious structures and surfaces after project is completed.
 - 8) Springs, wetlands, and other surface waters located onsite.
 - 9) Boundaries of the 100-year floodplain, if determined.
 - 10) Ordinary high-water line, if determined.
 - 11) Location of storm drainage outfalls to receiving waters, if applicable.
 - 12) Details of sediment and erosion controls.
 - 13) Details of detention ponds, storm drain piping, inflow, and outflow details.
- c. Required BMPs and Procedures for Erosion Prevention, Runoff Control, and Sediment Control:
- 1) Construction entrances and parking areas.
 - 2) Unpaved site roads such as haul roads.
 - 3) Hauling saturated soils from the Site.
 - 4) Water washed from concrete trucks.
 - 5) Correct installation of erosion and sediment control BMPs.
 - 6) Prompt maintenance and repair of BMPs.
 - 7) Clearing and grading practices to minimize area of exposed soil throughout life of the Project.
 - 8) Schedule of phased clearing operations to limit soils to what can be stabilized.
 - 9) Vegetative practices, including preservation of existing vegetation, seeding, mulching, and buffer strips.
 - 10) Preventing erosion of exposed areas.
 - 11) Diverting flows from exposed slopes.
 - 12) Limiting runoff from exposed areas.
 - 13) Limiting sediment transport within work sites and keeping it from moving off of project areas.
 - 14) Perimeter controls for all clearing and grubbing, both planned and installed.
 - 15) Additional controls for wet season work and temporary work suspensions.
 - 16) Sensitive areas such as wetlands.
 - 17) Offsite material source and waste areas.
 - 18) Dust.
 - 19) Emergency materials stockpiled onsite.
 - 20) Storing flows and filtering sediment.
 - 21) Soil stockpiles.

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4. Contractor's construction TESC Plan and implementation schedules must be prepared by a competent individual. Furnish a signed copy of the TESC Plan with individual's name, title, state certifications, and employing firm if different than Contractor's firm.
 5. Do not begin any Site activities that have potential to cause erosion or sediment movement until the TESC Plan and implementation schedules are approved by Engineer.
 6. Keep a copy of the approved TESC Plan with updated changes onsite during all construction activities. During inactive periods longer than 7 calendar days, keep the TESC Plan onsite or provide a copy to Engineer to retain.
 7. Continually update the TESC Plan and schedules as needed for unexpected storm or other events to ensure that sediment-laden water does not leave the construction site. Add approved changes to the TESC Plan no later than 24 hours after implementation.
 8. Clark County Building Official requires that the SWPPP, prepared by Contractor as specified within this section, shall be submitted to the Responsible Official at Clark County at least 10 working days prior to the Preconstruction Conference. Delay of submittal to County may result in delay of County review and delay of scheduling Preconstruction Conference.
- E. Install clearing limit fence as shown on the Drawings or as instructed by Engineer. Space posts and attach fence fabric to posts as shown on the Drawings. Do not fasten fence to trees. Throughout the life of the Project, preserve and protect delineated area, acting immediately to repair or restore any fencing damaged or removed.
- F. Preventing erosion, and controlling runoff, sedimentation, and non-stormwater pollution, requires Contractor to perform temporary Work items including, but not limited to:
1. Providing ditches, berms, culverts, and other measures to control surface water.
 2. Building dams, settling basins, energy dissipaters, and other measures, to control downstream flows.
 3. Controlling underground water found during construction.
 4. Covering or otherwise protecting slopes until permanent erosion control measures are working.

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- G. To the degree possible, coordinate this temporary Work with permanent drainage and erosion control work the Contract requires.
- H. Engineer may require additional temporary control measures if it appears pollution or erosion may result from weather, nature of materials, or progress on the Work.
- I. When natural elements rut or erode the slope, restore, and repair damage with eroded material where possible, and remove and dispose of any remaining material found in ditches and culverts. When Engineer orders replacement with additional or other materials, unit Contract prices will cover quantities needed.
- J. Install all sediment control devices including, but not limited to, sediment ponds, perimeter silt fencing, or other sediment trapping BMPs prior to any ground disturbing activity. Do not expose more erodible earth than necessary during clearing, grubbing, excavation, borrow, or fill activities without written approval by Engineer. Engineer may increase or decrease the limits based on project conditions. Erodible earth is defined as any surface where soils, grindings, or other materials may be capable of being displaced and transported by rain, wind, or surface water runoff. Cover inactive areas of erodible earth, whether at final grade or not, within specified time period see National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction Activity using an approved soil covering practice. Phase clearing and grading to maximum extent practical to prevent exposed inactive areas from becoming a source of erosion.
- K. Water pollution control shall comply with procedures outlined in U.S. Environmental Protection Agency manuals titled, "Guidelines for Erosion and Sedimentation Control Planning" and "Implementation, Processes, Procedures, and Methods to Control Pollution Resulting from all Construction Activity."
- L. Detention/Retention Pond Construction: Whether permanent or temporary, construct before beginning other grading and excavation Work in the area that drains into that pond. Install temporary conveyances concurrently with grading in accordance with the TESC Plan so that newly graded areas drain to the pond as they are exposed.

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M. Pollution Control:

1. Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, leftover paints, solvents, and glues from construction operations. Implement the following BMPs when applicable:
 - a. Written spill prevention and response procedures.
 - b. Employee training on spill prevention and proper disposal procedures.
 - c. Spill kits in all vehicles.
 - d. Regular maintenance schedule for vehicles and machinery.
 - e. Material delivery and storage controls.
 - f. Training and signage.
 - g. Covered storage areas for waste and supplies.

N. If Engineer orders the Work suspended, continue to control erosion, pollution, and runoff during the shutdown.

O. Nothing in this section shall relieve Contractor from complying with other Contract requirements.

1.04 SUBMITTALS

A. Action Submittals:

1. Geotextile:
 - a. Manufacturer material specifications and product literature.
 - b. Installation drawings showing geotextile sheet layout, location of seams, direction of overlap, and sewn seams.
 - c. Description of proposed method of geotextile deployment, sewing equipment, sewing methods, and provisions for holding geotextile temporarily in place until permanently secured.
2. Riprap: Description and location of proposed sources of riprap bedding and riprap.

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B. Informational Submittals:

1. Contractor to provide TESC Plan. Provide a schedule for TESC Plan implementation and incorporate it into Contractor's progress schedule. Obtain Engineer's approval of the TESC Plan and schedule before any Work begins.
2. Modified TESC Plans shall meet all requirements of the applicable jurisdictions.
3. The TESC Plan shall cover all areas that may be affected inside and outside the limits of the Project (including all Owner-provided sources, disposal sites, and haul roads, and all nearby land, streams, and other bodies of water).
4. Allow at least 5 working days for Engineer to review any original or revised TESC Plan. Failure to approve all or part of any such Plan shall not make Owner liable to Contractor for any Work delays.
5. Geotextile:
 - a. Certifications from each geotextile manufacturer that furnished products have specified property values. Certified property values shall be either minimum or maximum average roll values, as appropriate, for geotextiles furnished.
 - b. Field seam efficiency test results.
6. Riprap:
 - a. Certified Test Results:
 - 1) Gradation.
 - 2) Abrasion resistance.
 - 3) Bulk density.

PART 2 PRODUCTS

2.01 BIOFILTER BAG INLET BARRIER

- A. Plastic mesh bag filled with wood chips.
- B. As shown on Clark County Standard Detail E3c.

2.02 STRAW WATTLE

- A. As shown on Clark County Standard Detail E6.

2.03 GEOTEXTILE

- A. Geotextiles shall consist only of long chain polymeric fibers or yarns formed into a stable network such that the fibers or yarns retain their position relative to each other during handling, placement, and design service life. At least 95 percent by weight of the material shall be polyolefins or polyesters. The

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material shall be free from defects or tears. Geotextile shall also be free of any treatment or coating which might adversely alter its hydraulic or physical properties after installation. Geotextile properties shall be as specified in Table 1.

Table 1 Geotextile for Permanent Erosion Control							
Geotextile Property	ASTM Test Method	Geotextile Property Requirements					
		Permanent Erosion Control				Ditch Lining	
		Moderate Survivability		High Survivability			
		Woven	Nonwoven	Woven	Nonwoven	Woven	Nonwoven
AOS	D4751	See Table 2		See Table 2		U.S. No. 30 max.	
Water Permittivity	D4491	See Table 2		See Table 2		0.02 sec ⁻¹ min.	
Grab Tensile Strength, in machine and x-machine direction	D4632/ D4632M	250 lb min.	160 lb min.	315 lb min.	200 lb min.	250 lb min.	160 lb min.
Grab Failure Strain, in machine and x-machine direction	D4632/ D4632M	15% -50%	≥50%	15% -50%	≥50%	<50%	≥50%
Seam Breaking Strength	D4632/ D4632M	220 lb min.	140 lb min.	270 lb min.	180 lb min.	220 lb min.	140 lb min.
Puncture Resistance	D6241	495 lb min.	310 lb min.	620 lb min.	430 lb min.	495 lb min.	310 lb min.
Tear Strength, in machine and x-machine direction	D4533	80 lb min.	50 lb min.	112 lb min.	79 lb min.	80 lb min.	50 lb min.
Ultraviolet (UV) Radiation Stability	D4355	70% strength retained min., after 500 hours in xenon arc device.					

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Table 2 Filtration Properties for Geotextile for Permanent Erosion Control				
Geotextile Property	ASTM Test Method	Geotextile Property Requirements		
		Class A	Class B	Class C
AOS	D4751	U.S. No. 40 max.	U.S. No. 60 max.	U.S. No. 70 max.
Water Permittivity	D4491	0.7 sec ⁻¹ min.	0.4 sec ⁻¹ min.	0.2 sec ⁻¹ min.

2.04 PLASTIC COVERING

- A. Clear plastic meeting requirements of ASTM D4397 for polyethylene sheeting having a minimum thickness of 6 mils.
- B. As shown on Clark County Standard Detail E16.

2.05 SEEDING

- A. Grass seed mixes for wet soil conditions shall be as specified in Table 4.7 of the Clark County Stormwater Manual.

2.06 SILT FENCE

- A. As shown on Clark County Standard Detail E4.

2.07 RIPRAP

- A. Riprap shall be Class A Riprap as specified in Section 9-13 of WSDOT Standard Specifications.

2.08 STREET CLEANING

- A. Use self-propelled pickup street sweeper(s). Mechanical broom sweepers are not allowed where environmental concerns exist about storm water pollution or air quality.

PART 3 EXECUTION

3.01 PREPARATION

- A. Engineer's acceptance of the TESC Plan is required prior to starting earth disturbing activities.
- B. Include proposed stockpile areas and installation of temporary erosion control devices, ditches, or other facilities in Work phasing plans.

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- C. Areas designated for Contractor's use during Project may be temporarily developed as specified to provide working, staging, and administrative areas. Include control of sediment from these areas in the TESC Plan.
- D. Biofilter Bag Inlet Barrier: Install as recommended by manufacturer.
- E. Plastic Covering: Use clear plastic covering to promote seed germination when seeding is performed outside of specified dates. Use black plastic covering for stockpiles or other areas where vegetative growth is unwanted. Place plastic with at least a 12-inch overlap of all seams. Install and maintain plastic cover to prevent water from cutting under the plastic and to prevent cover from blowing open in the wind.
- F. Geotextile:
 - 1. Lay and maintain geotextile smooth and free of tension, folds, wrinkles, or creases.
 - 2. Orient geotextile with long dimension of each sheet parallel to direction of slope.
 - 3. Overlap Unseamed Joints: Minimum 18 inches.
 - 4. Secure geotextile during installation as necessary with sandbags or other means approved by Engineer.
 - 5. Before placing material over geotextile, notify Engineer. Do not cover installed geotextile until after Engineer provides authorization to proceed.
 - 6. If tears, punctures, or other geotextile damage occurs during placement of overlying products, remove overlying products as necessary to expose damaged geotextile.
 - 7. Riprap Applications:
 - a. Overlap geotextile at each joint with upstream sheet of geotextile overlapping downstream sheet.
 - b. Sew joints where wave run-up may occur.
 - c. Limit height of riprap fall onto geotextile to prevent damage.
 - 1) Drop Height: 0 foot for greater than 200-pound rock. 3 feet for less than 200-pound rock.
- G. Riprap:
 - 1. Place riprap over geotextile to thickness shown on the Drawings.
 - 2. No mechanical compaction of riprap is required; however, work riprap bedding as necessary to distribute it and to eliminate detrimental voids. Avoid overworking or long pushes that result in segregation of particle sizes.

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3. Grade surface of riprap bedding free from irregularities and to tolerances of 0.2 foot from established grade.
4. Place and grade riprap in a manner that avoids subgrade disturbance and displacement or damage to geotextile. If wrinkles form in geotextile as riprap bedding is placed, correct them as specified in Article Geotextile.
5. Place riprap on geotextile without puncturing or damaging geotextile. If accidentally damaged, repair geotextile prior to proceeding.

H. Seeding: See Section 32 92 00, Turf and Grasses.

I. Silt Fence:

1. Silt fence shall be installed in accordance with the Drawings. When backup support is used, use steel wire with a maximum mesh spacing of 2 inches by 4 inches, or plastic mesh as resistant to ultraviolet radiation as the geotextile it supports. Provide wire or plastic mesh with strength equivalent to or greater than as required for unsupported geotextile (for example, 180 pounds grab tensile strength in the machine direction).
2. Attach geotextile to posts and support system using staples, wire, or in accordance with manufacturer's recommendations. Geotextile shall be sewn together at the point of manufacture, or at a location approved by Engineer, to form geotextile lengths as required.
3. Provide wood or steel support posts at sewn seams and overlaps and as shown on the Drawings and necessary to support fence.
4. Wood Posts: Minimum dimensions and lengths as shown on Detail.
5. Steel Posts: Minimum weight of 0.90 pound per foot.
6. When sediment deposits reach approximately one-third the height of the silt fence, remove and stabilize deposits.

J. Street Cleaning: Use self-propelled pickup street sweepers whenever required by Engineer to prevent transport of sediment and other debris off Project Site. Provide street sweepers designed and operated to meet air quality standards. Street washing with water will require approval by Engineer. Intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.

3.02 ADDITIONAL REQUIREMENTS

A. Natural Buffer or Equivalent:

1. Unless natural buffer between the Project Site and receiving waters has previously been eliminated by pre-existing development disturbances,

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comply with one of the following alternatives if stormwater from construction will discharge to surface water:

- a. Provide a 50-foot, undisturbed natural buffer between construction disturbances and surface water.
- b. Provide an undisturbed natural buffer that is less than 50 feet supplemented by additional erosion and sediment controls, which in combination, achieve a sediment load reduction that is equivalent to a 50-foot buffer.
- c. If it is infeasible to provide an undisturbed natural buffer of any size, implement erosion and sediment controls that achieve a sediment load reduction that is equivalent to a 50-foot buffer.

3.03 MAINTENANCE

- A. The ESCP measures described in this specification are minimum requirements for anticipated Site conditions. During the construction period, upgrade these measures as needed to comply with all applicable local, state, and federal erosion and sediment control regulations.
- B. Maintain erosion and sediment control BMPs so they properly perform their function until Engineer determines they are no longer needed.
- C. Construction activities must avoid or minimize excavation and creation of bare ground during wet weather.
- D. The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.
- E. Inspect BMPs in accordance with the schedule in the Construction Stormwater Discharge Permit(s) or as directed by Engineer.
- F. Complete an inspection report within 24 hours of an inspection. Each inspection report shall be signed and identify corrective actions. Document that corrective actions are performed within 7 days of identification. Keep a copy of all inspection reports at the Site or at an easily accessible location.
- G. Unless otherwise specified, remove deposits before the depth of accumulated sediment and debris reaches approximately height of BMP. Dispose of debris or contaminated sediment at approved locations. Clean sediments may be stabilized onsite using BMPs as approved by Engineer.
- H. Silt Fence: Promptly repair or replace silt fence that becomes damaged. Remove trapped sediment before it reaches one-third of the above ground fence height and before fence removal.

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- I. Biofilter Bag Inlet Barrier: Remove sediment before it reaches 2 inches depth above ground height and before BMP removal.
- J. Geotextile: Repair or replace torn, punctured, flawed, deteriorated, or otherwise damaged geotextile.
 - 1. Repair Procedure:
 - a. Place patch of undamaged geotextile over damaged area and at least 18 inches in all directions beyond damaged area.
 - b. Remove interfering material as necessary to expose damaged geotextile for repair.
 - c. Sew patches or secure them with heat fusion tacking or with pins and washers, as specified above in Article Securing Geotextile, or by other means approved by Engineer.
 - 2. Protect geotextile from contamination that would interfere, in Engineer's opinion, with its intended function. Remove and replace contaminated geotextile with clean geotextile.
- K. Catch Basins: Clean before retention capacity has been reduced by 50 percent.
- L. Sediment Basins and Sediment Traps: Remove trapped sediments before design capacity has been reduced by 50 percent and at completion of Project.
- M. Initiate repair or replacement of damaged erosion and sediment control BMPs immediately, and work completed by end of next workday. Significant replacement or repair must be completed within 7 days, unless infeasible.
- N. Within 24 hours, remediate any significant sediment that has left construction site. Investigate cause of the sediment release and implement steps to prevent a recurrence of discharge within same 24 hours. Perform in-stream cleanup of sediment according to applicable regulations.
- O. At end of each workday, stabilize or cover soil stockpiles or implement other BMPs to prevent discharges to surface waters or conveyance systems leading to surface waters.
- P. Temporarily stabilize soils at end of shift before holidays and weekends, if needed. Ensure soils are stable during rain events at all times of year.
- Q. Initiate stabilization by no later than end of next workday after construction work in an area has stopped permanently or temporarily.
- R. Within 14 days of initiating stabilization or as specified in permit, either seed or plant stabilized area; or apply non-vegetative measures and cover all areas of exposed soil. Seed dry areas as soon as Site conditions allow. Ensure that

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vegetation covers at least 70 percent of stabilized area. In areas where Contractor's activities have compromised erosion control functions of existing grasses, overseed existing grass. Non-vegetative measures may include blown straw and a tackifier, loose straw, or an adequate covering of compost mulch. Complete initial stabilization within 7 days if storm water discharges to surface waters impaired for sediment or nutrients, or high-quality waters.

- S. Provide permanent erosion control measures on all exposed areas. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. However, do remove all temporary erosion control measures as exposed areas become stabilized, unless doing so conflicts with local requirements. Properly dispose of construction materials and waste, including sediment retained by temporary BMPs.

3.04 REMOVAL

- A. When Engineer determines that an erosion control BMP is no longer required, remove BMP and all associated hardware from the Project limits. When materials are biodegradable, Engineer may approve leaving temporary BMP in place.
- B. Permanently stabilize all bare and disturbed soil after removal of erosion and sediment control BMPs. Dress sediment deposits remaining after BMPs have been removed to conform to existing grade. Prepare and seed graded area. If installation and use of erosion control BMPs have compacted or otherwise rendered soil inhospitable to plant growth, such as construction entrances, take measures to rehabilitate soil to facilitate plant growth. This may include, but is not limited to, ripping the soil, incorporating soil amendments, or seeding with specified seed.

END SECTION

SECTION 01 61 00
COMMON PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 DEFINITIONS

A. Products:

1. New items for incorporation in the Work, whether purchased by Contractor or Owner for the Project, or taken from previously purchased stock, and may also include existing materials or components required for reuse.
2. Includes the terms material, equipment, machinery, components, subsystem, system, hardware, software, and terms of similar intent and is not intended to change meaning of such other terms used in Contract Documents, as those terms are self-explanatory and have well recognized meanings in construction industry.
3. Items identified by manufacturer's product name, including make or model designation, indicated in manufacturer's published product literature, that is current as of the date of the Contract Documents.

1.02 SUBMITTALS

A. Informational Submittals:

1. Build America Buy America (BABA) Certifications and related documentation.
2. American Iron and Steel (AIS) Certifications.

1.03 DESIGN REQUIREMENTS

- A.** Where Contractor design is specified, design of installation, systems, equipment, and components, including supports and anchorage, shall be in accordance with provisions of latest edition of International Building Code (IBC) by International Code Council as modified by the State of Washington.

1. See the Drawings for Structural Design Criteria.

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1.04 ENVIRONMENTAL REQUIREMENTS

- A. Altitude: Provide materials and equipment suitable for installation and operation under rated conditions at 200 feet above sea level.
- B. Provide equipment and devices installed outdoors or in unheated enclosures capable of continuous operation within an ambient temperature range of 10 degrees F to 105 degrees F. Where specified, provide higher temperature rating.
- C. Individual specification sections may indicate special temperature ratings for mechanical and electrical systems.

1.05 PREPARATION FOR SHIPMENT

- A. When practical, factory assemble products. Mark or tag separate parts and assemblies to facilitate field assembly. Cover machined and unpainted parts that may be damaged by the elements with strippable protective coating.
- B. Package products to facilitate handling and protect from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, contents by name, name of Project and Contractor, equipment number, and approximate weight. Include complete packing list and bill of materials with each shipment.
- C. Extra Materials, Special Tools, Test Equipment, and Expendables:
 - 1. Furnish as required by individual specifications.
 - 2. Schedule:
 - a. Ensure that shipment and delivery occur concurrent with shipment of associated equipment.
 - b. Transfer to Owner shall occur immediately subsequent to Contractor's acceptance of equipment from Supplier.
 - 3. Packaging and Shipment:
 - a. Package and ship extra materials and special tools to avoid damage during long term storage in original cartons insofar as possible, or in appropriately sized, hinged-cover, wood, plastic, or metal box.
 - b. Prominently displayed on each package, the following:
 - 1) Manufacturer's part nomenclature and number, consistent with Operation and Maintenance Manual identification system.
 - 2) Applicable equipment description.

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- 3) Quantity of parts in package.
 - 4) Equipment manufacturer.
 - 4. Deliver materials to Site.
 - 5. Notify Engineer upon arrival for transfer of materials.
 - 6. Replace extra materials and special tools found to be damaged or otherwise inoperable at time of transfer to Owner.
- D. Factory Test Results: Reviewed and accepted by Engineer before product shipment as required in individual specification sections.

1.06 DELIVERY AND INSPECTION

- A. Deliver products in accordance with accepted current Progress Schedule and coordinate to avoid conflict with the Work and conditions at Site. Deliver anchor bolts and templates sufficiently early to permit setting prior to placement of structural concrete.
- B. Deliver products in undamaged condition, in manufacturer's original container or packaging, with identifying labels intact and legible. Include on label, date of manufacture and shelf life, where applicable.
- C. Unload products in accordance with manufacturer's instructions for unloading or as specified. Record receipt of products at Site. Promptly inspect for completeness and evidence of damage during shipment.
- D. Remove damaged products from Site and expedite delivery of identical new undamaged products, and remedy incomplete or lost products to provide that specified, so as not to delay progress of the Work.

1.07 HANDLING, STORAGE, AND PROTECTION

- A. Handle and store products in accordance with manufacturer's written instructions and in a manner to prevent damage. Store in approved storage yards or sheds provided in accordance with Section 01 50 00, Temporary Facilities and Controls. Provide manufacturer's recommended maintenance during storage, installation, and until products are accepted for use by Owner.
- B. Manufacturer's instructions for material requiring special handling, storage, or protection shall be provided prior to delivery of material.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to ensure that products are maintained under specified conditions, and free from damage or deterioration. Keep running account of products in storage to facilitate inspection and to estimate progress payments for products delivered, but not installed in the Work.

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- D. Store electrical, instrumentation, and control products, and equipment with bearings in weather-tight structures maintained above 60 degrees F. Protect electrical, instrumentation, and control products, and insulate against moisture, water, and dust damage. Connect and operate continuously space heaters furnished in electrical equipment.
- E. Store fabricated products above ground on blocking or skids and prevent soiling or staining. Store loose granular materials in well-drained area on solid surface to prevent mixing with foreign matter. Cover products that are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.
- F. Store finished products that are ready for installation in dry and well-ventilated areas. Do not subject to extreme changes in temperature or humidity.
- G. After installation, provide coverings to protect products from damage because of traffic and construction operations. Remove coverings when no longer needed.
- H. Hazardous Materials: Prevent contamination of personnel, storage area, and Site. Meet requirements of product specification, codes, and manufacturer's instructions.

PART 2 PRODUCTS

2.01 GENERAL

- A. Provide manufacturer's standard materials suitable for service conditions, unless otherwise specified in the individual specifications.
- B. Where product specifications include a named manufacturer, with or without model number, and include performance requirements, named manufacturer's products must meet the performance specifications.
- C. Like items of products furnished and installed in the Work shall be end products of one manufacturer and of the same series or family of models to achieve standardization for appearance, operation and maintenance, spare parts and replacement, manufacturer's services, and implement same or similar process instrumentation and control functions in same or similar manner.
- D. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.

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- E. Provide interchangeable components of the same manufacturer, for similar components, unless otherwise specified.
- F. Equipment, Components, Systems, and Subsystems: Design and manufacture with due regard for health and safety of operation, maintenance, and accessibility, durability of parts, and shall comply with applicable OSHA, state, and local health and safety regulations.
- G. Regulatory Requirement: Coating materials shall meet federal, state, and local requirements limiting the emission of volatile organic compounds and for worker exposure.
- H. Safety Guards: Provide for all belt or chain drives, fan blades, couplings, or other moving or rotary parts. Cover rotating part on all sides. Design for easy installation and removal. Use 16-gauge or heavier; galvanized steel, aluminum coated steel, or galvanized or aluminum coated 1/2-inch mesh expanded steel. Provide galvanized steel accessories and supports, including bolts. For outdoors application, prevent entrance of rain and dripping water.
- I. Authority Having Jurisdiction (AHJ):
 - 1. Provide the Work in accordance with NFPA 70, National Electrical Code (NEC). Where required by the AHJ, material and equipment shall be labeled or listed by a nationally recognized testing laboratory or other organization acceptable to the AHJ in order to provide a basis for approval under NEC.
 - 2. Materials and equipment manufactured within the scope of standards published by UL shall conform to those standards and shall have an applied UL listing mark.
- J. Equipment Finish:
 - 1. Provide manufacturer's standard finish and color, except where specific paint systems and/or colors are indicated. Note requirements of Section 09 90 00, Painting and Coating, which indicates specific coating requirements for certain equipment.
 - 2. If manufacturer has no standard color, provide equipment with gray finish as approved by Owner.
- K. Special Tools and Accessories: Furnish to Owner, upon acceptance of equipment, all accessories required to place each item of equipment in full operation. These accessory items include, but are not limited to, adequate oil and grease (as required for first lubrication of equipment after field testing), light bulbs, fuses, hydrant wrenches, valve keys, handwheels, chain operators, special tools, and other spare parts as required for maintenance.

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- L. Lubricant: Provide initial lubricant recommended by equipment manufacturer in sufficient quantity to fill lubricant reservoirs and to replace consumption during testing, startup, and operation until final acceptance by Owner.

2.02 FABRICATION AND MANUFACTURE

A. General:

1. Manufacture parts to U.S.A. standard sizes and gauges.
2. Two or more items of the same type shall be identical, by the same manufacturer, and interchangeable.
3. Design structural members for anticipated shock and vibratory loads.
4. Use 1/4-inch minimum thickness for steel that will be submerged, wholly or partially, during normal operation.
5. Modify standard products as necessary to meet performance specifications.

B. Lubrication System:

1. Require no more than weekly attention during continuous operation.
2. Convenient and accessible; oil drains with bronze or stainless steel valves and fill-plugs easily accessible from the normal operating area or platform. Locate drains to allow convenient collection of oil during oil changes without removing equipment from its installed position.
3. Provide constant-level oilers or oil level indicators for oil lubrication systems.
4. For grease type bearings, which are not easily accessible, provide and install stainless steel tubing; protect and extend tubing to convenient location with suitable grease fitting.

2.03 SOURCE QUALITY CONTROL

- A. Where Specifications call for factory testing to be witnessed by Engineer, notify Engineer not less than 14 days prior to scheduled test date, unless otherwise specified.
- B. Calibration Instruments: Bear the seal of a reputable laboratory certifying instrument has been calibrated within the previous 12 months to a standard endorsed by the National Institute of Standards and Technology (NIST).
- C. Factory Tests: Perform in accordance with accepted test procedures and document successful completion.

PART 3 EXECUTION

3.01 INSPECTION

- A. Inspect materials and equipment for signs of pitting, rust decay, or other deleterious effects of storage. Do not install material or equipment showing such effects. Remove damaged material or equipment from the Site and expedite delivery of identical new material or equipment. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delays within Contractor's control.

3.02 MANUFACTURER'S CERTIFICATE OF COMPLIANCE

- A. When so specified, a Manufacturer's Certificate of Compliance, a copy of which is attached to this section, shall be completed in full, signed by entity supplying the product, material, or service, and submitted prior to shipment of product or material or execution of the services.
- B. Engineer may permit use of certain materials or assemblies prior to sampling and testing if accompanied by accepted certification of compliance.
- C. Such form shall certify proposed product, material, or service complies with that specified. Attach supporting reference data, affidavits, and certifications as appropriate.
- D. May reflect recent or previous test results on material or product, if acceptable to Engineer.

3.03 INSTALLATION

- A. Equipment Drawings show general locations of equipment, devices, and raceway, unless specifically dimensioned.
- B. No shimming between machined surfaces is allowed.
- C. Install the Work in accordance with NECA Standard of Installation, unless otherwise specified.
- D. Repaint painted surfaces that are damaged prior to equipment acceptance.
- E. Do not cut or notch any structural member or building surface without specific approval of Engineer.
- F. Handle, install, connect, clean, condition, and adjust products in accordance with manufacturer's instructions, and as may be specified. Retain a copy of manufacturers' instruction at Site, available for review at all times.

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G. For material and equipment specifically indicated or specified to be reused in the Work:

1. Use special care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
2. Arrange for transportation, storage, and handling of products that require offsite storage, restoration, or renovation. Include costs for such Work in the Contract Price.

3.04 FIELD FINISHING

A. Where manufacturer's finishing systems are used, field finish in accordance with manufacturer's instructions.

3.05 ADJUSTMENT AND CLEANING

A. Perform required adjustments, tests, operation checks, and other startup activities.

3.06 LUBRICANTS

A. Fill lubricant reservoirs and replace consumption during testing, startup, and operation prior to acceptance of equipment by Owner.

3.07 SUPPLEMENT

A. The supplement listed below, following "End of Section," is a part of this specification:

1. Manufacturer's Certificate of Compliance.

END OF SECTION

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MANUFACTURER'S CERTIFICATE OF COMPLIANCE

OWNER: _____ PRODUCT, MATERIAL, OR SERVICE
PROJECT NAME: _____ SUBMITTED: _____
PROJECT NO: _____

Comments: _____

I hereby certify that the above-referenced product, material, or service called for by the Contract for the named Project will be furnished in accordance with all applicable requirements. I further certify that the product, material, or service are of the quality specified and conform in all respects with the Contract requirements, and are in the quantity shown.

Date of Execution: _____, 20__

Manufacturer: _____

Manufacturer's Authorized Representative (*print*): _____

(Authorized Signature)

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Submit prior to application for final payment.
 - a. Record Documents: As required in General Conditions.
 - b. Approved Shop Drawings and Samples: As required in the General Conditions.
 - c. Special Bonds, Special Guarantees, and Service Agreements.
 - d. Consent of Surety to Final Payment: As required in General Conditions.
 - e. Releases or Waivers of Liens and Claims: As required in General Conditions.
 - f. Releases from Agreements.
 - g. Final Application for Payment: Submit in accordance with procedures and requirements stated in Section 01 29 00, Payment Procedures.
 - h. Extra Materials: As required by individual specification sections.
 - i. Build America Buy America Final Certification Statement.
 - j. Final Davis-Bacon and Related Acts (DBRA) Certified Payroll Form.

1.02 RECORD DOCUMENTS

A. Quality Assurance:

1. Furnish qualified and experienced person, whose duty and responsibility shall be to maintain record documents.
2. Accuracy of Records:
 - a. Coordinate changes within record documents, making legible and accurate entries on each sheet of the Drawings and other documents where such entry is required to show change.
 - b. Purpose of Project record documents is to document factual information regarding aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive Site measurement, investigation, and examination.
3. Make entries within 24 hours after receipt of information that a change in the Work has occurred.

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4. Prior to submitting each request for progress payment, request Engineer's review and approval of current status of record documents. Failure to properly maintain, update, and submit record documents may result in a deferral by Engineer to recommend whole or any part of Contractor's Application for Payment, either partial or final.

1.03 RELEASES FROM AGREEMENTS

- A. Furnish Owner written releases from property owners or public agencies where side agreements or special easements have been made, or where Contractor's operations have not been kept within Owner's construction right-of-way.
- B. In the event Contractor is unable to secure written releases:
 1. Inform Owner of the reasons.
 2. Owner or its representatives will examine the Site, and Owner will direct Contractor to complete the Work that may be necessary to satisfy terms of the side agreement or special easement.
 3. Should Contractor refuse to perform this Work, Owner reserves right to have it done by separate contract and deduct cost of same from Contract Price or require Contractor to furnish a satisfactory bond in a sum to cover legal Claims for damages.
 4. When Owner is satisfied that the Work has been completed in agreement with Contract Documents and terms of side agreement or special easement, right is reserved to waive requirement for written release if: (i) Contractor's failure to obtain such statement is due to grantor's refusal to sign, and this refusal is not based upon any legitimate Claims that Contractor has failed to fulfill terms of side agreement or special easement, or (ii) Contractor is unable to contact or has had undue hardship in contacting grantor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 MAINTENANCE OF RECORD DOCUMENTS

- A. General:
 1. Promptly following commencement of Contract Times, secure from Engineer at no cost to Contractor, one complete set of Contract Documents. The Drawings will be full size.
 2. Label or stamp each record document with title, "RECORD DOCUMENTS," in neat large printed letters.

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3. Record information concurrently with construction progress and within 24 hours after receipt of information that change has occurred. Do not cover or conceal Work until required information is recorded.

B. Preservation:

1. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
2. Make documents and Samples available at all times for observation by Engineer.

C. Making Entries on the Drawings:

1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note as required.
 - a. Color Coding:
 - 1) Green when showing information deleted from the Drawings.
 - 2) Red when showing information added to the Drawings.
 - 3) Blue and circled in blue to show notes.
2. Date entries.
3. Call attention to entry by “cloud” drawn around area or areas affected.
4. Legibly mark to record actual changes made during construction including, but not limited to:
 - a. Depths of various elements of foundation in relation to finished first floor data if not shown or where depth differs from that shown.
 - b. Horizontal and vertical locations of existing and new Underground Facilities and appurtenances, and other underground structures, equipment, or Work. Reference to at least two measurements to permanent surface improvements.
 - c. Location of internal utilities and appurtenances concealed in the construction referenced to visible and accessible features of the structure.
 - d. Locate existing facilities, piping, equipment, and items critical to the interface between existing physical conditions or construction and new construction.
 - e. Demolition: Items and features removed, limits of removal, and notes to describe partial removals.
 - f. Changes made by Addenda and Field Orders, Work Change Directive, Change Order, and Engineer’s written interpretation and clarification using consistent symbols for each and showing appropriate document tracking number.

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5. Dimensions on Schematic Layouts: Show on the Record Drawings, by dimension, the centerline of each run of items such as are described in previous subparagraph above.
 - a. Clearly identify the item by accurate note, such as “cast iron drain,” “galv. water,” and the like.
 - b. Show, by symbol or note, vertical location of item (“under slab,” “in ceiling plenum,” “exposed,” and the like).
 - c. Make identification so descriptive that it may be related reliably to Specifications.

3.02 FINAL CLEANING

- A. At completion of the Work or of a part thereof and immediately prior to Contractor’s request for certificate of Substantial Completion; or if no certificate is issued, immediately prior to Contractor’s notice of completion, clean entire Site, or parts thereof, as applicable.
 1. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to Owner and Engineer.
 2. Remove grease, dirt, dust, paint or plaster splatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.
 3. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
 4. Broom clean exterior paved driveways and parking areas.
 5. Rake clean all other surfaces.
 6. Replace air-handling filters and clean ducts, blowers, and coils of ventilation units operated during construction.
 7. Leave water courses, gutters, and ditches open and clean.
- B. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.

3.03 SUPPLEMENT

- A. The supplement listed below, following “End of Section,” is a part of this specification:
 1. Build America Buy America (BABA) Final Certification Statement.

END OF SECTION

BUILD AMERICA, BUY AMERICA (BABA) ACT FINAL CERTIFICATION STATEMENT

Upon execution of this certification, the selected Contractor, Subcontractor, Materials Supplier, or Service Provider hereby certifies that all of the iron, steel, manufactured products, and construction materials used in the project were produced in the United States or appropriate waiver(s) have been approved by the U.S. Environmental Protection Agency and that no changes or substitutions to the individual certifications provided by the contractor were made.

This statement relates to a proposed contract between _____
(contractor)

and _____ or between
(owner)

_____ and _____
(subcontractor) (contractor)

in conjunction with _____
(project name)

to be funded with monies from a federal assistance agreement.

Signature Date

Name and Title of Signer (Please type)

SECTION 01 78 23
OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Detailed information for the preparation, submission, and Engineer's review of Operations and Maintenance (O&M) Data, as required by individual specification sections.

1.02 DEFINITIONS

- A. Final Data: Engineer-accepted data, submitted as specified herein.
- B. Maintenance Operation: As used on Maintenance Summary Form is defined to mean any routine operation required to ensure satisfactory performance and longevity of equipment. Examples of typical maintenance operations are lubrication, belt tensioning, adjustment of pump packing glands, and routine adjustments.
- C. Preliminary Data: Initial and subsequent submissions for Engineer's review.

1.03 SEQUENCING AND SCHEDULING

- A. Equipment and System Data:
 - 1. Preliminary Data:
 - a. Do not submit until Shop Drawing for equipment or system has been reviewed and approved by Engineer.
 - b. Submit prior to shipment date.
 - 2. Final Data: Submit within 10 days after final inspection.
- B. Materials and Finishes Data:
 - 1. Preliminary Data: Submit: At least 15 days prior to request for final inspection.
 - 2. Final Data: Submit within 10 days after final inspection.

1.04 DATA FORMAT

- A. Prepare preliminary data in PDF format. Prepare final data in the form of an instructional manual and in PDF format.

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B. Instructional Manual Format:

1. Binder: Commercial quality, permanent, three-ring or three-post binders with durable plastic cover.
2. Size: 8-1/2 inches by 11 inches, minimum.
3. Cover:
 - a. Identify manual with typed or printed title "OPERATION AND MAINTENANCE DATA" and list:
 - 1) Project title.
 - 2) Designate applicable system, equipment, material, or finish.
 - 3) Identity of separate structure as applicable.
 - 4) Identify volume number if more than one volume.
 - 5) Identity of general subject matter covered in manual.
 - 6) Identity of equipment number and Specification section.
4. Spine:
 - a. Project title.
 - b. Identify volume number if more than one volume.
5. Title Page:
 - a. Contractor name, address, and telephone number.
 - b. Subcontractor, Supplier, installer, or maintenance contractor's name, address, and telephone number, as appropriate.
 - 1) Identify area of responsibility of each.
 - 2) Provide name and telephone number of local source of supply for parts and replacement.
6. Table of Contents:
 - a. Neatly typewritten and arranged in systematic order with consecutive page numbers.
 - b. Identify each product by product name and other identifying numbers or symbols as set forth in Contract Documents.
7. Paper: 20-pound minimum, white for typed pages.
8. Text: Manufacturer's printed data, or neatly typewritten.
9. Three-hole punch data for binding and composition; arrange printing so that punched holes do not obliterate data.
10. Material shall be suitable for reproduction, with quality equal to original. Photocopying of material will be acceptable, except for material containing photographs.

C. Electronic Media Format:

1. Portable Document Format (PDF):
 - a. After all preliminary data has been found to be acceptable to Engineer, submit Operation and Maintenance data in PDF format.
 - b. Files to be exact duplicates of Engineer-accepted preliminary data. Arrange by specification number and name.

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- c. Files to be fully functional and viewable in most recent version of Adobe Acrobat.
- d. Note requirements described in Section 01 33 00, Submittal Procedures, for PDF bookmarking requirements.

1.05 SUBMITTALS

A. Informational:

- 1. Data Outline: Submit electronic copies of a detailed outline of proposed organization and contents of Final Data prior to preparation of Preliminary Data.
- 2. Preliminary Data:
 - a. Submit electronic copies for Engineer and Owner's review.
 - b. If data meets conditions of the Contract, Owner will notify Contractor of acceptance or not required revisions.
 - c. If data does not meet conditions of the Contract, resubmit revised in accordance with Engineer's comments.
- 3. Final Data: Submit three copies of instructional manual and electronic copy in format specified herein.

1.06 DATA FOR EQUIPMENT AND SYSTEMS

A. Content for Each Unit (or Common Units) and System:

- 1. Product Data:
 - a. Include only those sheets that are pertinent to specific product.
 - b. Clearly annotate each sheet to:
 - 1) Identify specific product or part installed.
 - 2) Identify data applicable to installation.
 - 3) Delete references to inapplicable information.
 - c. Function, normal operating characteristics, and limiting conditions.
 - d. Performance curves, engineering data, nameplate data, and tests.
 - e. Complete nomenclature and commercial number of replaceable parts.
 - f. Original manufacturer's parts list, illustrations, detailed assembly drawings showing each part with part numbers and sequentially numbered parts list, and diagrams required for maintenance.
 - g. Spare parts ordering instructions.
 - h. Where applicable, identify installed spares and other provisions for future work (such as, reserved panel space, unused components, wiring, terminals).
- 2. As-installed, color-coded piping diagrams.

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3. Charts of valve tag numbers, with the location and function of each valve.
4. Drawings:
 - a. Supplement product data with the Drawings as necessary to clearly illustrate:
 - 1) Format:
 - a) Provide reinforced, punched, binder tab; bind in with text.
 - b) Reduced to 8-1/2 inches by 11 inches, or 11 inches by 17 inches folded to 8-1/2 inches by 11 inches.
 - c) Where reduction is impractical, fold and place in 8-1/2-inch by 11-inch envelopes bound in text.
 - d) Identify Specification section and product on the Drawings and envelopes.
 - 2) Relations of component parts of equipment and systems.
 - 3) Control and flow diagrams.
 - 4) Coordinate Drawings with Project record documents to assure correct illustration of completed installation.
5. Instructions and Procedures: Within text, as required to supplement product data.
 - a. Format:
 - 1) Organize in consistent format under separate heading for each different procedure.
 - 2) Provide logical sequence of instructions for each procedure.
 - 3) Provide information sheet for Owner's personnel, including:
 - a) Proper procedures in event of failure.
 - b) Instances that might affect validity of guarantee or Bond.
 - b. Installation Instructions: Including alignment, adjusting, calibrating, and checking.
 - c. Operating Procedures:
 - 1) Startup, break-in, routine, and normal operating instructions.
 - 2) Test procedures and results of factory tests where required.
 - 3) Regulation, control, stopping, and emergency instructions.
 - 4) Description of operation sequence by control manufacturer.
 - 5) Shutdown instructions for both short and extended duration.
 - 6) Summer and winter operating instructions, as applicable.
 - 7) Safety precautions.
 - 8) Special operating instructions.
 - d. Maintenance and Overhaul Procedures:
 - 1) Routine maintenance.
 - 2) Guide to troubleshooting.
 - 3) Disassembly, removal, repair, reinstallation, and re-assembly.

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6. Guarantee, Bond, and Service Agreement: In accordance with Section 01 77 00, Closeout Procedures.
- B. Content for Each Electric or Electronic Item or System:
1. This section is in addition to the requirements defined in Paragraph Content for Each Unit (or Common Units) and System.
 2. Description of Unit and Component Parts:
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, nameplate data, and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - d. Interconnection wiring diagrams, including control and lighting systems.
 3. Circuit Directories of Panelboards.
 4. Electrical service.
 5. Control requirements and interfaces.
 6. Communication requirements and interfaces.
 7. List of electrical relay settings, and control and alarm contact settings.
 8. Electrical interconnection wiring diagram, including as applicable, single-line, three-line, schematic and internal wiring, and external interconnection wiring.
 9. As-installed control diagrams by control manufacturer.
 10. Operating Procedures:
 - a. Routine and normal operating instructions.
 - b. Startup and shutdown sequences, normal and emergency.
 - c. Safety precautions.
 - d. Special operating instructions.
 11. Maintenance Procedures:
 - a. Routine maintenance.
 - b. Guide to troubleshooting.
 - c. Adjustment and checking.
 - d. List of relay settings, control, and alarm contact settings.
 12. Manufacturer's printed operating and maintenance instructions.
 13. List of original manufacturer's spare parts (including original manufacturer part numbers), manufacturer's current prices, and recommended quantities to be maintained in storage.
- C. Maintenance Summary:
1. Compile individual Maintenance Summary for each applicable equipment item, respective unit, or system, and for components or subunits.

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2. Format:
 - a. Use Maintenance Summary Form bound with this section or electronic facsimile of such.
 - b. Each Maintenance Summary may take as many pages as required.
 - c. Use only 8-1/2-inch by 11-inch size paper.
 - d. Complete using typewriter or electronic printing.
3. Include detailed lubrication instructions and diagrams showing points to be greased or oiled; recommend type, grade, and temperature range of lubricants and frequency of lubrication.
4. Recommended Spare Parts:
 - a. Data to be consistent with manufacturer's Bill of Materials/Parts List furnished in O&M manuals.
 - b. "Unit" is the unit of measure for ordering the part.
 - c. "Quantity" is the number of units recommended.
 - d. "Unit Cost" is the current purchase price.

D. Equipment Inventory Data:

1. Compile individual Equipment Inventory Data for each applicable equipment item, respective unit, or system, and for components or subunits.
2. Format:
 - a. See attached supplement for data fields required. Owner will provide Excel file.
 - b. Complete digitally using MS Excel 2010 or newer.
3. Coordinate with Owner to review required data format prior to initial submittal.

1.07 DATA FOR MATERIALS AND FINISHES

A. Content for Architectural Products, Applied Materials, and Finishes:

1. Manufacturer's Data, Giving Full Information on Products:
 - a. Catalog number, size, and composition.
 - b. Color and texture designations.
 - c. Information required for reordering special-manufactured products.
2. Instructions for Care and Maintenance:
 - a. Manufacturer's recommendation for types of cleaning agents and methods.
 - b. Cautions against cleaning agents and methods that are detrimental to product.
 - c. Recommended schedule for cleaning and maintenance.

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B. Content for Moisture Protection and Weather Exposed Products:

1. Manufacturer's Data, Giving Full Information on Products:
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Details of installation.
2. Instructions for inspection, maintenance, and repair.

1.08 SUPPLEMENTS

A. The supplements listed below, following "End of Section," are part of this specification:

1. Maintenance Summary Form.
2. Equipment Inventory Template.
3. Template: Operation and Maintenance Manual Cover.
4. Template: Operation and Maintenance Manual Spine.
5. Template: Operation and Maintenance Data Table of Contents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

MAINTENANCE SUMMARY FORM

PROJECT: _____ CONTRACT NO.: _____

1. EQUIPMENT ITEM _____

2. MANUFACTURER _____

3. EQUIPMENT/TAG NUMBER(S) _____

4. WEIGHT OF INDIVIDUAL COMPONENTS (OVER 100 POUNDS) _____

5. NAMEPLATE DATA (hp, voltage, speed, etc.) _____

6. MANUFACTURER'S LOCAL REPRESENTATIVE _____

a. Name _____ Telephone No. _____

b. Address _____

7. MAINTENANCE REQUIREMENTS

Maintenance Operation Comments	Frequency	Lubricant (If Applicable)
List briefly each maintenance operation required and refer to specific information in manufacturer's standard maintenance manual, if applicable. (Reference to manufacturer's catalog or sales literature is not acceptable.)	List required frequency of each maintenance operation.	Refer by symbol to lubricant required.

SALMON CREEK TREATMENT PLANT UV SYSTEM REPLACEMENT

8. LUBRICANT LIST

[illegible]

9. RECOMMENDED SPARE PARTS FOR OWNER'S INVENTORY.

Part No.	Description	Unit	Quantity	Unit Cost

Note: Identify parts provided by this Contract with two asterisks.

**SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT**

Equipment Inventory Template

	Data Field	Required	Instructions	Examples
Asset ID	Area Code	Yes	Pick from drop down list. First three digits of 12 digit equipment ID.	P09
	System Code	Yes	Pick from drop down list. Second three digits of 12 digit equipment ID.	DGA
	Equip Code	Yes	Pick from drop down list. Third three digits of 12 digit equipment ID.	WGB
	Equip Number	Yes	Enter last three numbers of 12 digit equipment ID.	123
	Equipment Name	Yes	Enter equipment name as shown on P&ID or Equipment List.	Waste Gas Burner 1
	Location	Yes	Enter description of where unit is located.	West of Digester 3
	Service Status	No	Always included as 'ACTV'.	ACTV
	Project Name	No	Always included as '2015 Plant Expansion'.	2015 Plant Expansion
	Construction Package	Yes	Enter which construction package equipment.	3
	Size	Yes	Fundamental unit size in HP, SCFM, GPM, INCHES, etc.	30
	Unit of measure	Yes	Units for Size field: HP, SCFM, GPM, INCHES, etc.	HP
	Manufacturer	Yes		Wemco Pumps
	Model Number	Yes		Wem-omatic 30
	Serial Number	Yes		234569
	P&ID#	Yes		PI028.06
	Elect Drawing#	As applicable		09E1210
	Instr. Drawing#	As applicable		09I1001
	Other Drawing #'s	As applicable		09P1201
	Purchase Cost	Yes	Enter bare equipment purchase cost.	\$15,634
	Warranty Expires	Yes	TBD or date if known.	TBD
	Manufactured Date	As applicable		9/30/2013
	Purchase Date	As applicable		2/20/2013
	Installed Date	Yes		10/3/2013
	PLC Cabinet	As applicable		CCR233
	Motor Control Center	As applicable		MCC235
	MCC Bucket	As applicable		4C
	Power/ Lighting Panel	As applicable		P09EDSELP091
	Panel Circuit Breaker	As applicable		17
	Motor/Oper:Make/Model	As applicable		Baldor / Ecotech 432
	Specification Number	Yes		23 40 13
	Submittal Number	Yes		43A

OPERATION AND MAINTENANCE MANUAL

Salmon Creek Treatment Plant UV System Replacement

(TITLE of EQUIPMENT SYSTEM)

TAG: # ()

SPECIFICATION SECTION: ()

MANUFACTURER: ()

MANUFACTURER'S
REPRESENTATIVE: ()

()

()

Telephone: (- -)

CONTRACTOR: ()

()

()

Telephone: (- -)

SALMON CREEK TREATMENT PLANT
UV SYSTEM REPLACEMENT

Salmon Creek Treatment Plant UV System Replacement
OPERATION AND MAINTENANCE MANUAL
SPEC SECTION XX XX XX – TITLE of EQUIPMENT SYSTEM

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SECTION 01 88 15
ANCHORAGE AND BRACING

PART 1 GENERAL

1.01 SUMMARY

- A. This section covers requirements for anchorage and bracing of equipment, distribution systems, and other nonstructural components required in accordance with the ICC 2021 International Building Code (IBC), for seismic, wind, gravity, soil, and operational loads.

1.02 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Concrete Institute (ACI) 318, Building Code Requirements for Structural Concrete.
 - 2. American Institute of Steel Construction (AISC): 360, Specification for Structural Steel Buildings.
 - 3. American Society of Civil Engineers (ASCE): ASCE 7, Minimum Design Loads for Buildings and Other Structures.
 - 4. International Code Council (ICC): International Building Code (IBC).

1.03 DEFINITIONS

- A. Authority Having Jurisdiction (AHJ): Permitting building agency; may be a federal, state, local, or other regional department, or individual including building official, fire chief, fire marshal, chief of a fire prevention bureau, labor department, or health department, electrical inspector; or others having statutory authority. AHJ may be Owner when authorized to be self-permitting by governmental permitting agency or when no governmental agency has authority.
- B. Designated Seismic System: Architectural, electrical, and mechanical system or their components for which component importance factor is greater than 1.

SALMON CREEK TREATMENT PLANT UV SYSTEM REPLACEMENT

1.04 DESIGN AND PERFORMANCE REQUIREMENTS

A. General:

1. Anchorage and bracing systems shall be designed by a qualified professional engineer registered in the State of Washington.
2. Design anchorage into concrete including embedment in accordance with ACI 318-14; Chapter 17 (or other industry standard approved by Engineer), and Project Specifications. Unless otherwise noted, design for cracked concrete condition.
3. Design anchorage and bracing of architectural, mechanical, and electrical components and systems in accordance with this section, unless a design is specifically provided within Contract Documents or where exempted hereinafter.
4. Design attachments, braces, and anchors for equipment, components, and distribution systems to structure for gravity, seismic, wind, and operational loading.
5. Anchor and brace piping and ductwork, whether exempt or not exempt for this section, so that lateral or vertical displacement does not result in damage or failure to essential architectural, mechanical, or electrical equipment.
6. Architectural Components: Includes, but are not limited to, nonstructural walls and elements, partitions, cladding and veneer, access flooring, signs, cabinets, suspended ceilings, and glass in glazed curtain walls and partitions.
7. Provide supplementary framing where required to transfer anchorage and bracing loads to structure.
8. Adjust equipment pad sizes or provide additional anchorage confinement reinforcing to provide required anchorage capacities.
9. Design anchorage and bracing for:
 - a. Equipment and components that weigh more than 400 pounds and have center of mass located 4 feet or less above adjacent finished floor.
 - b. Equipment weighing more than 20 pounds that has center of mass located more than 4 feet above adjacent finished floor.
 - c. Mechanical and electrical components that are not provided with flexible connections between components and associated ductwork, piping, or conduit.
 - d. Distribution systems that weigh more than 5 pounds per foot that have center of mass located more than 4 feet above adjacent finished floor.
10. For components exempted from design requirements of this section, provide bolted, welded, or otherwise positively fastened attachments to supporting structure.

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B. Design Loads:

1. Gravity: Design anchorage and bracing for self-weight and superimposed loads on components and equipment.
2. Wind: Design anchorage and bracing for wind criteria provided on General Structural Notes on the Drawings for exposed architectural components and exterior and wind-exposed mechanical and electrical equipment. Alternately, manufacturer certification may be provided for components, such as roofing and flashing, to verify attachments meet Project-specific design criteria.
3. Operational:
 - a. For loading supplied by equipment manufacturer for IBC required load cases.
 - b. Loads may include equipment vibration, torque, thermal effects, effects of internal contents (weight and sloshing), water hammer, and other load-inducing conditions.
 - c. Locate braces to minimize vibration to or movement of structure.
 - d. For vibrating loads, use anchors meeting requirements of Section 05 50 00, Metal Fabrications, or Section 05 05 19, Post-Installed Anchors, for anchors with designated capacities for vibratory loading per manufacturer's ICC-ES report.
4. Hydraulic: Design of anchorage for submerged gates and other mechanical equipment shall include hydrostatic and hydrodynamic loads determined in accordance with Section 15.7 of ASCE 7-16.
5. Seismic:
 - a. In accordance with IBC, Section 1613, and Chapter 13 of ASCE 7.
 - b. Design anchorage and bracing for design criteria listed on General Structural Notes on the Drawings.
 - c. Design forces for anchors in concrete or masonry shall be in accordance with ASCE 7, Section 13.4.2 as applicable for Project Seismic Design Category.

C. Seismic Design Requirements:

1. Nonstructural Components: Design as nonbuilding structures for components with weights greater than or equal to 25 percent of effective seismic weight of overall structure.
2. Analyze local region of body of nonstructural component for load transfer of anchorage attachment if component I_p equals 1.5.

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3. The following are exempt from requirements for provision of seismic anchorages and bracing, in addition to those items specifically exempted in ASCE 7, Part 13.5 for architectural components and Part 13.6 for electrical and mechanical equipment:
 - a. Furniture, except storage cabinets and bookshelves over 6 feet tall.
 - b. Temporary or movable equipment.
4. Fire protection sprinkler systems designed and constructed in accordance with NFPA 13 shall be considered to meet requirements of Chapter 13 of ASCE 7.
5. Provide support drawings and calculations for electrical distribution components if any of the following conditions apply:
 - a. Conduit diameter is greater than 2.5-inch trade size.
 - b. Total weight of bus duct, cable tray, or conduit supported by trapeze assemblies exceeds 10 pounds per foot.
6. Existing components, systems, and equipment in their final condition that are modified by Project requirements and are not exempted by above paragraph require the same anchorage and bracing Drawing and calculation submittals as new equipment. Field verify existing conditions.
7. Other seismic design and detailing information identified in ASCE 7, Chapter 13, is required to be provided for new and modified or noted architectural, mechanical, and electrical components, systems, or equipment.

1.05 SUBMITTALS

A. Action Submittals:

1. Shop Drawings:
 - a. List of architectural, mechanical, and electrical equipment requiring Contractor-designed anchorage and bracing, unless specifically exempted.
 - b. Manufacturers' engineered seismic and non-seismic hardware product data.
 - c. Attachment assemblies' drawings including seismic attachments; include connection hardware, braces, and anchors or anchor bolts for nonexempt components, equipment, and systems.
 - d. Drawings for seismic attachment assemblies include connection hardware, braces, and anchors (or anchor bolts) for modified, nonexempt existing components, equipment, and systems where a combination of new and existing systems or components' final condition would require anchorage or bracing under this specification for new equipment.

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- e. Submittal will be rejected if proposed anchorage method would create excessive stress to supporting member. Revise anchorages and strengthen structural support to eliminate overstressed condition.

B. Informational Submittals:

- 1. Anchorage and Bracing Calculations: For attachments, braces, and anchorages, include IBC and Project-specific criteria as noted on General Structural Notes on the Drawings, in addition to manufacturer's specific criteria used for design; sealed by a civil or structural engineer registered in the State of Washington.
- 2. Manufacturer's hardware installation requirements.

C. Deferred Submittals:

- 1. Submitted seismic anchorage drawings and calculations are identified as IBC deferred submittals and will be submitted to and must be accepted by AHJ prior to installation of component, equipment, or distribution system.
- 2. Submit deferred Action Submittals, such as Shop Drawings, with supporting deferred informational submittals, such as calculations, no less than 4 weeks in advance of installation of component, equipment, or distribution system to be anchored to structure.

1.06 SOURCE QUALITY CONTROL

- A. Contractor and supplier responsibilities to accommodate Owner-furnished shop fabrication related special inspections and testing are provided in Project's Statement of Special Inspections on the Drawings, and Section 01 45 33, Special Inspection, Observation, and Testing.
- B. Provide all other specified, regulatory required, or required repair verification inspection and testing that is not listed in Statement of Special Inspections in accordance with Section 01 45 16.13, Contractor Quality Control.
- C. Provide Source Quality Control for welding and hot-dip galvanizing of anchors in accordance with Section 05 50 00, Metal Fabrications.

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PART 2 PRODUCTS

2.01 GENERAL

- A. Design and construct attachments and supports transferring seismic and non-seismic loads to structure of materials and products suitable for application and in accordance with design criteria shown on the Drawings and nationally recognized standards.
- B. Provide anchor bolts for anchorage of equipment to concrete or masonry in accordance with Section 05 50 00, Metal Fabrications. Provide anchor bolts of the size, minimum embedment, and spacing designated in calculations submitted by Contractor and accepted by Engineer.
- C. Provide post-installed concrete and masonry anchors for anchorage of equipment to concrete or masonry in accordance with Section 05 05 19, Post-Installed Anchors. Provide post-installed anchors of the size, minimum embedment, and spacing designated in calculations submitted by Contractor and accepted by Engineer.
- D. Do not use powder-actuated fasteners or sleeve anchors for seismic attachments and anchorage where resistance to tension loads is required. Do not use expansion anchors, other than undercut anchors, for nonvibration isolated mechanical equipment rated over 10 hp.

PART 3 EXECUTION

3.01 GENERAL

- A. Make attachments, bracing, and anchorage in such a manner that component lateral force is transferred to lateral force resisting system of structure through a complete load path.
- B. Design, provide, and install overall seismic anchorage system to provide restraint in all directions, including vertical, for each component or system so anchored.
- C. Provide snubbers in each horizontal direction and vertical restraints for components mounted on vibration isolation systems where required to resist overturning.

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- D. Provide piping anchorage that maintains design flexibility and expansion capabilities at flexible connections and expansion joints. Piping and ductwork suspended more than 12 inches below supporting structure shall be braced for seismic effects to avoid significant bending of hangers and their attachments unless HVAC ducts have a cross-sectional area of less than 6 square feet or weigh 17 pounds per foot or less.
- E. Anchor tall and narrow equipment such as motor control centers and telemetry equipment at base and within 12 inches from top of equipment, unless approved otherwise by Engineer.
- F. Do not attach architectural, mechanical, or electrical components to more than one element of a building structure at a single restraint location where such elements may respond differently during a seismic event. Do not make such attachments across building expansion and contraction joints.

3.02 INSTALLATION

- A. Do not install components or their anchorages or restraints prior to review and acceptance by Engineer and AHJ.
- B. Notify Engineer upon completion of installation of seismic restraints in accordance with Section 01 45 33, Special Inspection, Observation, and Testing.

3.03 FIELD QUALITY ASSURANCE AND QUALITY CONTROL

- A. In accordance with Section 05 50 00, Metal Fabrications, and Section 05 05 19, Post-Installed Anchors.
- B. Owner-Furnished Quality Assurance, in accordance with IBC Chapter 17 requirements, is provided in Statement of Special Inspections Plan on the Drawings. Contractor responsibilities and related information are included in Section 01 45 33, Special Inspection, Observation, and Testing.
- C. Provide any other specified, regulatory required, or required repair verification inspection and testing that is not listed in Statement of Special Inspections in accordance with Section 01 45 16.13, Contractor Quality Control.

END OF SECTION

SECTION 01 91 14
EQUIPMENT TESTING AND FACILITY STARTUP

PART 1 GENERAL

1.01 DEFINITIONS

- A. Facility Performance Demonstration:
 - 1. A demonstration, conducted by Contractor, with assistance of Owner, to demonstrate and document the performance of the entire operating facility, both manually and automatically (if required), based on criteria developed in conjunction with Owner and as accepted by Engineer.
 - 2. Such demonstration is for the purposes of (i) verifying to Owner entire facility performs as a whole, and (ii) documenting performance characteristics of completed facility for Owner's records. Neither the demonstration nor the evaluation is intended in any way to make performance of a unit process or entire facility the responsibility of Contractor unless such performance is otherwise specified.
- B. Facility: Entire Project, or an agreed-upon portion, including all of its unit processes.
- C. Functional Test: Test or tests in presence of Engineer and Owner to demonstrate that installed equipment meets manufacturer's installation, calibration, and adjustment requirements and other requirements as specified.
- D. Performance Test: Test or tests performed after any required functional test in presence of Engineer and Owner to demonstrate and confirm individual equipment meets performance requirements specified in individual sections.
- E. Unit Process: As used in this section, a unit process is a portion of the facility that performs a specific process function, such as a chemical dosing pump system.

1.02 SUBMITTALS

- A. Informational Submittals:
 - 1. Facility Startup and Performance Demonstration Plan.
 - 2. Functional and performance test results.
 - 3. Completed Unit Process Startup Form for each unit process.
 - 4. Completed Facility Performance Demonstration/Certification Form.

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1.03 FACILITY STARTUP AND PERFORMANCE DEMONSTRATION PLAN

- A. Develop a written plan to include the following:
1. Step-by-step instructions for startup of each unit process and the complete facility within the schedules/milestones defined in Section 01 31 15, Construction Sequencing and Constraints.
 2. Unit Process Startup Form (sample attached), to minimally include the following:
 - a. Description of the unit process, including equipment numbers and nomenclature of each item of equipment and all included devices.
 - b. Detailed procedure for startup of the unit process, including valves to be opened/closed, order of equipment startup.
 - c. Startup requirements for each unit process, including water, power, and chemicals.
 - d. Space for evaluation comments.
 3. Facility Performance Demonstration/Certification Form (sample attached), to minimally include the following:
 - a. Description of unit processes included in the facility startup.
 - b. Sequence of unit process startup to achieve facility startup.
 - c. Description of computerized operations, if any, included in the facility.
 - d. Contractor certification facility is capable of performing its intended function(s), including fully automatic operation.
 - e. Signature spaces for Contractor and Engineer.
- B. Provide Facility Startup and Performance Demonstration Plan organized and written for the following minimum number of Unit Processes. Process and Instrumentation Diagrams (P&IDs) are useful in identifying the equipment, instruments and processes that are included in each Unit Process.
1. Facilities: Facility 55 UV System, P&ID 95-I-124.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Facility Startup Meetings: Schedule, in accordance with requirements of Section 01 31 19, Project Meetings, to discuss test schedule, test methods, materials, chemicals and liquids required, facilities operations interface, and Owner involvement.

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- B. Contractor's Testing and Startup Representative:
 - 1. Designate and furnish one or more personnel to coordinate and expedite testing and facility startup.
 - 2. Representative(s) shall be present during startup meetings and shall be available at all times during testing and startup.
- C. Provide temporary valves, gauges, piping, test equipment and other materials and equipment required for testing and startup.
- D. Provide Subcontractor and equipment manufacturers' staff adequate to prevent delays. Schedule ongoing work so as not to interfere with or delay testing and startup.
- E. Owner will:
 - 1. Provide water, power, chemicals, and other items as required for startup, unless otherwise indicated.
 - 2. Operate process units and facility with support of Contractor. Equipment vendor training and functional testing shall be completed prior to Owner operating process units.
 - 3. Provide labor and materials as required for laboratory analyses.

3.02 EQUIPMENT TESTING

- A. Preparation:
 - 1. Complete installation before testing.
 - 2. Furnish qualified manufacturers' representatives, when required by individual specification sections.
 - 3. Obtain and submit from equipment manufacturer's representative Manufacturer's Certificate of Proper Installation Form, in accordance with Section 01 43 33, Manufacturers' Field Services, when required by individual specification sections.
 - 4. Equipment Test Report Form:
 - a. Provide written test report for each item of equipment to be tested, to include the minimum information:
 - 1) Owner/Project Name.
 - 2) Equipment or item tested.
 - 3) Date and time of test.
 - 4) Type of test performed (Functional or Performance).
 - 5) Test method.
 - 6) Test conditions.
 - 7) Test results.
 - 8) Signature spaces for Contractor and Engineer as witness.

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5. Coordinate testing requirements with Section 26 08 00, Commissioning of Electrical Systems, and Section 26 05 70, Electrical System Analysis. Implement settings as defined in these sections.
6. Cleaning and Checking:
 - a. Prior to beginning functional testing:
 - 1) Calibrate testing equipment in accordance with manufacturer's instructions.
 - 2) Inspect and clean equipment, devices, connected piping, and structures to ensure they are free of foreign material.
 - 3) Lubricate equipment in accordance with manufacturer's instructions.
 - 4) Turn rotating equipment by hand when possible to confirm that equipment is not bound.
 - 5) Open and close valves by hand and operate other devices to check for binding, interference, or improper functioning.
 - 6) Check power supply to electric-powered equipment for correct voltage.
 - 7) Adjust clearances and torque.
 - 8) Test piping for leaks.
7. Ready-to-test determination will be by Engineer based at least on the following:
 - a. Acceptable Operation and Maintenance Data.
 - b. Notification by Contractor of equipment readiness for testing.
 - c. Receipt of Manufacturer's Certificate of Proper Installation, if so specified.
 - d. Adequate completion of work adjacent to, or interfacing with, equipment to be tested.
 - e. Availability and acceptability of manufacturer's representative, when specified, to assist in testing of respective equipment.
 - f. Satisfactory fulfillment of other specified manufacturer's responsibilities.
 - g. Equipment and electrical tagging complete.
 - h. Delivery of all spare parts and special tools.

B. Functional Testing:

1. Conduct as specified in individual specification sections.
2. Notify Owner and Engineer in writing at least 10 days prior to scheduled date of testing.
3. Prepare Equipment Test Report summarizing test method and results.

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4. When, in Engineer's opinion, equipment meets functional requirements specified, such equipment will be accepted for purposes of advancing to performance testing phase, if so required by individual Specification sections. Such acceptance will be evidenced by Engineer and Owner's signature as witness on Equipment Test Report.

C. Performance Testing:

1. Conduct as specified in individual specification sections.
2. Notify Engineer and Owner in writing at least 10 days prior to scheduled date of test.
3. Performance testing shall not commence until equipment has been accepted by Engineer as having satisfied functional test requirements specified.
4. Type of fluid, gas, or solid for testing shall be as specified.
5. Unless otherwise indicated, furnish labor, materials, and supplies for conducting the test and taking samples and performance measurements.
6. Prepare Equipment Test Report summarizing test method and results.
7. When, in Engineer's opinion, equipment meets performance requirements specified, such equipment will be accepted as to conforming to Contract requirements. Such acceptance will be evidenced by Engineer's signature on Equipment Test Report.

3.03 STARTUP OF UNIT PROCESSES

- A. Prior to unit process startup, provide Manufacturer's Prestartup training as specified in Section 01 43 33, Manufacturers' Field Services, and as specified in individual specification sections, for all equipment, and instruments that are used in each Unit Process Startup area.
- B. Prior to unit process startup, equipment within unit process shall be accepted by Engineer as having met functional and performance testing requirements specified.
- C. Startup sequencing of unit processes shall be as chosen by Contractor to meet schedule requirements.
- D. Make adjustments, repairs, and corrections necessary to complete unit process startup.
- E. Startup shall be considered complete when, in opinion of Engineer, unit process has operated in manner intended for 14 continuous days without significant interruption. This period is in addition to functional or performance test periods specified elsewhere.

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F. Significant Interruption:

1. May include any of the following events:
 - a. Failure of Contractor to provide and maintain qualified onsite startup personnel as scheduled.
 - b. Failure to meet specified functional operation for more than 2 consecutive hours.
 - c. Failure of any critical equipment or unit process that is not satisfactorily corrected within 5 hours after failure.
 - d. Failure of any noncritical equipment or unit process that is not satisfactorily corrected within 8 hours after failure.
 - e. As determined by Engineer.

- G. A significant interruption will require startup then in progress to be stopped. After corrections are made, startup test period to start from beginning again.

3.04 FACILITY PERFORMANCE DEMONSTRATION

- A. Demonstrate proper operation of required interfaces within and between individual unit processes.
- B. After facility is operating, complete performance testing of equipment and systems not previously tested.
- C. Document, as defined in Facility Startup and Performance Demonstration Plan, the performance of the facility including its computer system until all unit processes are operable and under control of computer system.
- D. Certify, on the Facility Performance Demonstration/Certification Form, that facility is capable of performing its intended function(s), including fully automatic and computerized operation. All unit processes shall have been started up of successfully and are operational prior to providing this certification and prior to requesting determination of Substantial Completion.

3.05 SUPPLEMENTS

- A. The supplements listed below, following “End of Section,” are a part of this specification:
 1. Unit Process Startup Form.
 2. Facility Performance Demonstration/Certification Form.

END OF SECTION

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UNIT PROCESS STARTUP FORM

OWNER:_____ **PROJECT:**_____

Unit Process Description: (Include description and equipment number of all equipment and devices):

Startup Procedure (Describe procedure for sequential startup and evaluation, including valves to be opened/closed, order of equipment startup, etc.):

Startup Requirements (Water, power, chemicals, etc.):_____

Evaluation Comments:_____

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FACILITY PERFORMANCE DEMONSTRATION/CERTIFICATION FORM

OWNER: _____ **PROJECT:** _____

Unit Processes Description (List unit processes involved in facility startup):

Unit Processes Startup Sequence (Describe sequence for startup, including computerized operations, if any):

Contractor Certification that Facility is capable of performing its intended function(s), including fully automatic operation:

Contractor: _____ **Date:** _____, 20____

Engineer: _____ **Date:** _____, 20____

(Authorized Signature)

