1400-1701-2024
July 23, 2024

PUBLIC WORKS
SW-C1701

PROJECT MANUAL

FOR

WELCOME STATION AND ENTRANCE ROAD

AT

ILLAHEE STATE PARK

IN

KITSAP COUNTY

BID DEADLINE: 1:00 P.M., THURSDAY, SEPTEMBER 19, 2024
ELECTRONIC BID RESPONSES ONLY: Bid responses will only be accepted electronically via Email/Email Attachment to BidBox@parks.wa.gov. (PDF scan encouraged).

****BIDS WILL BE OPENED WITHIN TWO BUSINESS DAYS****

WASHINGTON STATE PARKS & RECREATION COMMISSION
1111 ISRAEL ROAD SW
TUMWATER, WA 98501-6512
POST OFFICE BOX 42650
OLYMPIA, WASHINGTON 98504-2650

PROJECT MANUAL

FOR

WELCOME STATION AND ENTRANCE ROAD

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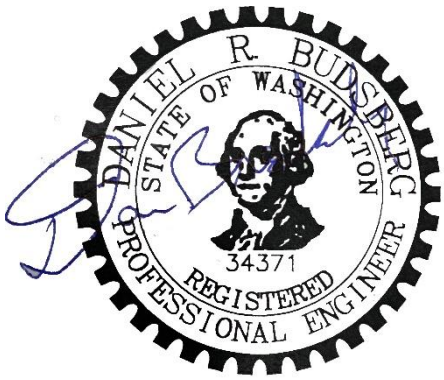
ILLAHEE STATE PARK

IN

KITSAP COUNTY



7/2/2024
PROJECT ENGINEER

Approved for Construction _____
Heather Saunders, Director of Parks Development

WASHINGTON STATE PARKS AND RECREATION COMMISSION
1111 ISRAEL ROAD SW
TUMWATER, WASHINGTON 9501-6512
P.O. BOX 42650
OLYMPIA, WASHINGTON 98504-2650

Diana Dupuis,
Director

STATE OF WASHINGTON

WASHINGTON STATE PARKS AND RECREATION COMMISSION

1111 Israel Road SW • PO Box 42650 • Olympia, WA 98504-2650 • (360) 902-8500
Internet Address: http://www.parks.wa.gov

August 06, 2024

Re: Letter of Advertisement – SW-C1701 - Illahee State Park – Welcome Station and Entrance Road

To whom it may concern:

Please publish the following legal advertisement under your "Advertisement for Bid" section for two (2) consecutive days beginning on **Tuesday, August 6, 2024**, *or at your earliest possible convenience*. An Affidavit of Publication will be required by this office. A voucher form is enclosed for your convenience in billing.

ADVERTISEMENT FOR BID

Sealed bids will be received for the following project:

PROJECT NUMBER:	SW-C1701
PROJECT TITTLE:	Illahee State Park - Welcome Station and Entrance Road
PROJECT DESCRIPTION:	This project includes renovating the entrance road and constructing a Welcome Center, with work in excavation, grading, paving, concrete, framing, electrical, plumbing, sewer lift station, landscaping, and metal roofing.
PROJECT LOCATION:	The project is located at Illahee State Park, 3540 NE Sylvan Way, Bremerton, WA 98310.
ESTIMATED BID RANGE:	$436,000.00 - $492,000.00
PROCUREMENT COORDINATOR	Manuel Iglesias
BID OPENING TIME:	**1:00 PM on Thursday, September 19, 2024**
PREBID WALKTHROUGH:	**10:00 AM on Tuesday, August 27, 2024.** Meet at the park entrance gate located at Illahee State Park, 3540 NE Sylvan Way, Bremerton, WA 98310.

PLANS, SPECIFICATIONS, ADDENDA, AND PLAN HOLDERS LIST: Are available on-line through Builders Exchange of Washington, Inc. at http://www.bxwa.com. Click on: "bxwa.com"; "Posted Projects"; "Public Works", "Washington State Parks & Recreation", and "**09/19/24**". (Note: Bidders are encouraged to "Register as a Bidder", in order to receive automatic email notification of future addenda and to be placed on the "Bidders List". This service is provided free of charge to Prime Bidders, Subcontractors, and Vendors bidding this project.)

Alternatively, bidders have the option to access Bid Documents, including Specifications and Drawings, at www.parks.wa.gov/contracts by clicking on the Construction Projects link for reference purposes. However, the official channel for notifications is through the Builders Exchange of Washington.

PLANS MAY ALSO BE VIEWED THROUGH: Associated Builders And Contractors, Spokane WA; Tri City Construction Council, Kennewick WA; Daily Journal of Commerce, Seattle WA; Weekly Construction Reporter, Bellingham WA; Daily Journal Of Commerce Plan Center, Portland OR; Lower Columbia Contractor Plan Center, Longview WA; Abadan Spokane Plan Center, Spokane WA; ARC Document Solutions, Seattle, WA; Associated General Contractors, Boise, ID; Dodge Construction, Bedford, MA; Hermiston Plan Center, Hermiston, OR; Contractor Plan Center, Clackamas, OR; Wenatchee Plan Center, Wenatchee, WA; Spokane Regional Plan Center, Spokane, WA; Associated General Contractors, Spokane, WA; Walla Walla Valley Plan Center, Walla Wall, WA; Yakima Plan Center, Yakima, WA.

TECHNICAL QUESTIONS regarding this project shall be directed to: Dan Budsberg*, Project Representative at telephone: (360) 918-3814, email: Dan.Budsberg@Parks.wa.gov, 1111 Israel Rd SW, Tumwater, WA 98501*.

BID RESULTS will be published on the State Parks Builders Exchange of Washington webroom and in the Construction Projects section at www.parks.wa.gov/contracts after the bid opening. This practice ensures that those involved and interested can readily view bid outcomes, enhancing transparency and efficiency in the bidding process.

THE STATE OF WASHINGTON PREVAILING WAGE RATES are applicable for this public works project. Bidders are responsible to verify and use the most recent prevailing wage rates. The "Effective Date" for this project is the bid submittal time and date above.

BIDDER RESPONSIBILITY will be evaluated for this project. In determining bidder responsibility, the Owner shall consider an overall accounting of the criteria set forth in Division 00 – Instructions To Bidders. Please direct questions regarding this subject to the office of the Project Engineer.

MANDATORY 15% APPRENTICE LABOR HOURS of the total labor hours are a requirement of this construction contract. Voluntary workforce diversity goals for this apprentice participation are identified in the Instructions to Bidders. Bidders may contact the Department of Labor & Industries, Apprenticeship Section, to obtain information on available apprenticeship programs.

SUBCONTRACTOR LISTINGS: Per RCW 39.30.060, when the bid proposal combined with any alternates totals one million dollars or more, the Bidder must list the Subcontractors they intend to use for structural steel, rebar installation, heating, ventilation, and air conditioning (HVAC), plumbing, and electrical work on the Subcontractor Utilization List form for this project.

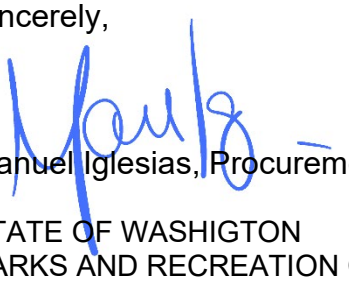
ACCESS EQUITY: The successful Bidder is required to complete their vendor registration in Access Equity, a secure B2GNow online vendor management system. Prime Contractors already registered with B2GNow for any public entity must ensure their information is up to date. The system can be accessed either directly at https://omwbe.diversitycompliance.com/ or via the Office of Minority and Women's Business Enterprises (OMWBE) website at https://omwbe.wa.gov/.

FOR THIS PROJECT, VOLUNTARY DIVERSITY GOALS HAVE BEEN SET: 10% for Minority Business Enterprises (MBE), 6% for Women's Business Enterprises (WBE), 5% for Washington Small Businesses, and 5% for Veteran-owned businesses. While meeting these goals is not mandatory, it is strongly encouraged to promote diversity in business participation.

Bidders may contact the Office of Minority and Women's Business Enterprise (OMWBE) at: http://omwbe.wa.gov/ to obtain information on certified firms. Bidders may also utilize Washington Small Businesses registered in WEBS at https://pr-webs-vendor.des.wa.gov/ and Veteran-owned Businesses at https://www.dva.wa.gov/veterans-their-families/veteran-ownedbusinesses/vob-search.

Washington State Parks reserves the right to accept or reject any or all proposals and to waive informalities.

Sincerely,



Manuel Iglesias, Procurement Coordinator

STATE OF WASHIGTON
PARKS AND RECREATION COMMISSION
CONTRACTS AND GRANTS

ILLAHEE STATE PARK
WELCOME STATION AND ENTRANCE ROAD

DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

DIVISION 8 – OPENINGS

DIVISION 9 – FINISHES

DIVISION 10 – SPECIALTIES

DIVISION 12 –FURNISHINGS

DIVISION 22 –PLUMBING

DIVISION 23 –HVAC

END OF SECTION

ILLAHEE STATE PARK
WELCOME STATION AND ENTRANCE ROAD

INVITATION TO BID

1.1 DESCRIPTION OF WORK

A. This project includes the renovation of the entrance road and construction of a Welcome Center. Work includes but not limited to excavation, grading, paving, concrete, framing, electrical, plumbing, sewer lift station, landscaping and metal roofing.

1.2 LOCATION OF PROJECT

A. The project is located at Illahee State Park, 3540 NE Sylvan Way, Bremerton, WA 98310.

1.3 TECHNICAL QUESTIONS

A. Direct project questions to Dan Budsberg, Project Representative at 360-918-3814, e-mail address, Dan.Budsberg@Parks.wa.gov. office address 1111 Israel Rd SW, Olympia, WA 98501.

1.4 PRE-BID PROJECT SITE TOUR

DATE:	Tuesday, August 27, 2024
TIME:	10:00 AM
LOCATION:	At the park entrance gate located at Illahee State Park, 3540 NE Sylvan Way, Bremerton, WA 98310

1.5 BID OPENING

A. Bid responses will only be accepted electronically via email/email attachment BidBox@parks.wa.gov. See Section 7.1 of the Instructions to Bidders for expanded details. Subject line shall read, SW-C1701 [YOUR COMPANY NAME], Bids are due at 1:00 p.m., Thursday, September 19, 2024.

B. Bid result notification is made by e-mail within two (2) days of the bids due date. Bid results can be obtained on the State Parks webpage at www.parks.wa.gov/contracts or through Builders Exchange of Washington at www.bxwa.com

C. The Agency reserves the right to accept or reject all bids and to waive informalities. The Bidder will allow 60 days from bid opening date for acceptance of its bid by the Agency.

1.6 COVID 19

A. COVID-19 Refer to the Department of Labor & Industries website for requirements regarding any safety plans needed. Novel Coronavirus Outbreak (COVID-19) Resources (wa.gov)

1.7 FOR INFORMATION ON:

A. Bidder Responsibility: Bidder Responsibility will be evaluated for this project. In determining bidder responsibility, the Owner shall consider an overall accounting of the criteria set forth in Division 00 – Instructions To Bidders. Please direct questions regarding this subject to the office of the Project Engineer

B. Reciprocal Preference: See Instructions to Bidders 2.1 Reciprocal Preference for Resident Contractors.

C. Apprenticeship Requirements: For projects estimated at or over $1,000,000, Apprenticeship Participation, Mandatory 15 percent apprentice labor, see Instructions to Bidders 4.1B Apprenticeship Participation.

D. Subcontractor Listings: When the base bid combined with any alternates totals $1,000,000 or more, the Bidder must list the Subcontractors they intend to use for structural steel, rebar installation, heating, ventilation, and air conditioning (HVAC), plumbing, and electrical work on the Subcontractor Utilization List form for this project, see Instructions to Bidders 4.1A Subcontractor Listing.

E. MWBE goals: See Instructions To Bidders 3.1 Minority And Women's Business Enterprise (MWBE) Utilization. For Veteran-Owned and Small Business utilization, see Instruction to Bidders 3.2.

F. Modification of Bid: See Instructions to Bidders 8.1 Modification of Bid.

G. Withdrawal of Bid: See Instructions to Bidders 9.1 Withdrawal of Bid.

H. Bid Security: See Instructions to Bidders 11.1 Bid Bond. No particular bid bond form is required.

I. Bid Tabulation and Bid Record: See Instructions to Bidders 12.1B for Bid Tabulation, Bid Record, and Announcement of Apparent Low Bid.

J. Records Request: All submitted bids are subject to public records request once the lowest bidder has been determined and officially announced. See Instructions to Bidders 12.1D Records Request.

1.8 ACCESSIBILITY

A. Sites may not be fully accessible to people with disabilities. Please contact the Project Representative at least five (5) days prior to the scheduled pre-bid tour if special accommodation is required for your attendance.

Your interest in Washington State Parks projects and your willingness to provide service through MRSC Statewide Small Works Roster is greatly appreciated.

END OF SECTION

WASHINGTON STATE PARK AND RECREATION COMMISSION
PUBLIC WORKS PROJECT

1.1 BIDDER DEFINED

A. A "*Bidder*" is an entity or person who submits a bid proposal for the work described in the contract documents.

B. The Bidder must be registered by the Washington State Department of Labor and Industries in accordance with RCW 18.27.020. Insert the contractor registration number, expiration date, Uniform Business Identifier (UBI) number, and federal tax identification number on the Bid Proposal Form in the applicable spaces.

2.1 RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS

A. In accordance with RCW 39.04.380 the State of Washington is enforcing a Reciprocal Preference for Resident Contractors. Any public works bid received from a nonresident contractor from a state that provides an in-state percentage bidding preference, a comparable percentage disadvantage must be applied to the bid of that nonresident contractor.

A nonresident contractor from a state that provides a percentage bid preference means a contractor that:

a) is from a state that provides a percentage bid preference to its resident contractors bidding on public works contracts.

b) at the time of bidding on a public works project, does not have a physical office located in Washington.

The state of residence for a nonresident contractor is the state in which the contractor was incorporated or, if not a corporation, the state where the contractor's business entity was formed, and for an individual, the individual's state of residence.

All nonresident contractors will be evaluated for out of state bidder preference. If the state of the nonresident contractor provides an in-state contractor preference, a comparable percentage disadvantage will be applied to their bid prior to contract award.

This section does not apply to public works procured pursuant to RCW 39.04.155, 39.04.280, or any other procurement exempt from competitive bidding.

B. A Comparable Percentage Disadvantage (CPD) will be applied to the bid of that nonresident contractor. The CPD is the in-state contractor percent advantage provided by the contractor's home state. For the purpose of determining the successful bidder, multiply the Nonresident Contractor bid amount by the CPD. The "bid amount" is be the total of the base bid and all accepted alternate bid items. The CPD is added to the Nonresident Contractor bid amount which equates to the Nonresident Disadvantage Total. The Nonresident Disadvantage Total is compared to the Washington contractor bid amounts. The bidder with the lowest total is the successful bidder. See example below.

Alaska Nonresident Contractor Bid Amount	$100,000
Multiplied by the Alaska CPD	x 0.05
Alaska CPD Total	$ 5,000
Alaska Nonresident Contractor Bid Amount	$100,000
Alaska CPD Total	$ 5,000
Nonresident Disadvantage Total	$105,000*

* Note – If the Nonresident Disadvantage Total is lower than all other Washington contractor bid amounts, the Alaska Nonresident Contractor is the successful bidder and will be awarded a contract for the bid amount of $100,000.

If the Nonresident Disadvantage Total is higher than a Washington contractor bid amount, the successful Washington bidder will be awarded a contract for the bid amount.

3.1 MINORITY AND WOMEN'S BUSINESS ENTERPRISE (MWBE) UTILIZATION

In accordance with the legislative findings and policies set forth in Chapter 39.19 RCW, the State of Washington encourages participation in contracts by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this solicitation/invitation or as a subcontractor to a Bidder. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the contract documents, no preference will be included in the evaluation of bids, no minimum level of MWBE participation is required as a condition for receiving an award, and bids will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the contract documents will apply.

A. VOLUNTARY MWBE GOALS

1. The following voluntary numerical MWBE participation goals have been established for this solicitation:

   MBE 10% WBE 6%

2. These goals are voluntary, but achievement of the goals is encouraged. Bidders may contact OMWBE at http://omwbe.wa.gov/ to obtain information on certified firms.

B. REPORTING REQUIREMENTS

1. If any part of the contract, (including the supply of materials and equipment) is subcontracted using certified MWBE firms during completion of the work, then prior to final acceptance or completion of the contract or as otherwise indicated in the contract documents the Bidder shall submit a statement of participation indicating that MWBEs were used and the dollar value of their subcontracts.

2. The provisions of this section are not intended to replace or otherwise change the requirements of RCW 39.30.060. If said statute is applicable to this contract then the failure to comply with RCW 39.30.060 will still render a bid non-responsive.

C. RECORD KEEPING

1. The Bidder shall maintain, for at least three years after completion of this contract, relevant records and information necessary to document the level of utilization of MWBEs and other businesses as subcontractors and suppliers in this contract as well as any efforts the Bidder makes to increase the participation of MWBEs. The Bidder shall also maintain, for at least three years after completion of this contract, a record of all quotes, bids, estimates, or proposals submitted to the Bidder by all businesses seeking to participate as subcontractors or suppliers in this contract. The State shall have the right to inspect and copy such records. If this contract involves federal funds, Bidder shall comply with all record keeping requirements set forth in any federal rules, regulations, or statutes included or referenced in the contract documents

D. SUGGESTED EFFORTS TO INCREASE PARTICIPATION BY MWBEs

1. Bidders are encouraged to advertise opportunities for subcontractors or suppliers in a manner reasonably designed to provide MWBEs capable of performing the work with timely notice of such opportunities, and all advertisements shall include a provision encouraging participation by MWBE firms. Advertising may be done through general advertisement (e.g., newspapers, journals, etc.) or by soliciting bids directly from MWBEs.

2. Additional Voluntary Efforts. Bidders are encouraged to:

   (a) Break down total requirements into smaller tasks or quantities, where economically feasible, in order to permit maximum participation by MWBEs and other small businesses.

   (b) Provide interested MWBEs with adequate and timely information about plans, specifications, and requirements of the Contract.

   (c) Establish delivery schedules, where the requirements of this contract permit, that encourage participation by MWBEs and other small businesses.

   (d) Reduce bonding requirements where practicable.

   (e) Utilize the services of available minority community organizations, minority contractor groups, local minority assistance offices, and organizations that provide assistance in the recruitment and placement of MWBEs and other small businesses.

3. The actions described in this section should supplement efforts to provide information to all qualified firms, and nothing in this section is intended to prevent or discourage the Bidders from inviting proposals for participation from non-MWBE firms as well as MWBE firms.

E. NON-DISCRIMINATION

1. Bidders shall not create barriers to open and fair opportunities for all businesses including MWBEs to participate in all State contracts and to obtain or compete for contracts and subcontracts as sources of supplies, equipment, construction and services. In considering offers from and doing business with subcontractors and suppliers, the Bidder shall not discriminate on the basis of race, color, creed, religion, sex, age, nationality, marital status, or the presence of any mental or physical disability in an otherwise qualified disabled person.

F. SANCTIONS

1. Any violation of the mandatory requirements of this part of the contract shall be a material breach of contract for which the Bidder may be subject to a requirement of specific performance, or damages and sanctions provided by contract, by RCW 39.19.090, or by other applicable laws.

3.2 VETERAN-OWNED BUSINESS AND SMALL, MINI, AND MICRO BUISNESS UTILIZATION

The State of Washington encourages participation in all of its contracts by Veteran-owned businesses (defined in RCW 43.60A.010) and located at:

http://www.dva.wa.gov/program/certified-veteran-and-servicemember-owned-businesses and Small, Mini and Micro businesses (defined in RCW 39.26.010) which have registered in WEBS at https://pr-webs-vendor.des.wa.gov/.

1. The following voluntary numerical WDVA and Small Business participation goals have been established for this solicitation:

   WDVA 5% Small Business 5%

2. These goals are voluntary, but achievement of the goals is encouraged. Bidders may search Washington Small Businesses registered in WEBS at:

   https://pr-webs-vendor.des.wa.gov/ and WA Veteran-owned Businesses at https://www.dva.wa.gov/veterans-their-families/veteran-ownedbusinesses/vob-search to obtain information on registered firms.

4.1 REQUIREMENTS FOR PROJECTS ESTIMATED AT $1,000,000 OR MORE

A. SUBCONTRACTOR LISTING

Pursuant to RCW 39.30.060, if the base bid combined with the sum of the alternates exceeds one million dollars ($1,000,000.00) or more for the construction, alteration, or repair of any public building or public work of the state shall require each Bidder to submit as part of the bid the names of subcontractors with whom the Bidder, if awarded the contract, will subcontract for performance of the work of heating, ventilation and air conditioning, plumbing, and electrical, structural steel installation, rebar installation or to name itself for the work. 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.

Failure of the Bidder to submit as part of the bid, the names of such subcontractors, or to name itself to perform such work, or the naming of two or more subcontractors to perform the same work, shall render the bid as non-responsive and therefore void.

B. APPRENTICESHIP PARTICIPATION

In projects estimated to cost One Million Dollars or more, be aware that the following requirements will be part of the resulting contract.

In accordance with RCW 39.04.320 (Apprenticeship Training Programs), for all public works estimated by the WSPRC Project Engineer to cost **one million dollars or more,** the state of Washington requires no less than **15% of the labor hours be performed by apprentices.** A contractor or subcontractor may not be required to exceed the 15% requirement. The bid advertisement and Bid Proposal Form shall establish a minimum required percentage of apprentice labor hours compared to the total labor hours.

1. **Incentives** - The Contractor who meets or exceeds this utilization requirement on eligible contracts, will be awarded a monetary incentive described in the Apprentice Utilization Requirements section of the Bid Form.

2. **Penalties** - The Contractor who fails to meet the utilization requirement and fails to demonstrate a Good Faith Effort, as outlined below, is subject to penalties described in

the Apprentice Utilization Requirements section of the contract Bid Form. Contractor will receive an invoice payable to the Owner within 30 days.

3. **Cost Value** - The expected cost value associated with meeting the goal is included in the Base Bid as described on the Bid Form.

4. **Utilization Plan** - The Contractor shall provide an Apprentice Utilization Plan (Plan) demonstrating how and when they intend to achieve the Apprenticeship Utilization Requirement. The Plan shall have enough information to track the Contractor's progress in meeting the utilization requirement. The Contractor shall submit the Plan on the Apprentice Utilization Plan template within 10 business days of Notice to Proceed of the contract and prior to submitting the first invoice. The Contractor shall provide an updated Plan during the course of construction when there are significant changes to the Plan which may affect their ability to meet the requirement.

   a) The Plan shall be uploaded to the Department of Labor & Industries' (L&I): ***Prevailing Wage Intents and Affidavit (PWIA) system on L&I's website.***

   b) The Plan is not submitted for approval.

   c) It is expected that the Contractor will actively seek out opportunities to meet the Apprentice Utilization Requirement during construction even if the Plan indicates a shortfall in meeting the requirement.

   d) If the Plan indicates that the Contractor will not attain the Apprentice Utilization Requirement, then Contractor must submit "Good Faith Effort" (GFE) documentation with their Plan to L&I's PWIA system.

C. APPRENTICESHIP - GOOD FAITH EFFORT (GFE)

1. **Good Faith Effort (GFE)** documentation shall describe in detail why the Contractor is not or was not able to attain the Apprentice Utilization Requirement.

   a) Contractors may submit Good Faith Effort (GFE) documentation at any time during the construction.

   b) All GFE documentation must be submitted no later than 30 days before substantial completion.

   c) Good Faith Effort (GFE) documentation must be in signed letter format uploaded to the PWIA system and include:

      1. The contract number, title and the apprentice utilization requirements,

      2. The amount of apprentice labor hours the contract can or did attain along with the percentage of labor hours,

      3. 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 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 or not 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 percentage meets the Contract requirement, the Contractor will be reported as meeting the requirement in good faith,

4. Anticipated or actual shortfall (in apprentice labor hours and percentage) and the reason(s) for not attaining the required apprentice labor hours,

5. Information from one or more of the following areas:

   (a) Names of any State-Approved Apprentice Training Programs contacted with the name(s) of person(s) contacted and dates of contacts, and a copy of each response from the Training Program(s),

   (b) Reference Contract Specifications or documents that affected the Contractor's ability to attain apprentice utilization,

   (c) Discuss efforts the Contractor has taken to require Subcontractors to solicit and employ apprentices,

6. Backup documentation to the letter consisting of the following:

   Letters, emails, phone logs including names dates and outcomes, posters, photos, payrolls, time cards, schedules, copies or references to other contract specifications or documents.

Additional Resource Information

(a) For questions regarding how to complete the Apprentice Utilization Plan template or Good Faith Effort documentation, please contact the Project Manager listed in the Bid Advertisement.

(b) Step-by-step instructions on how to access and navigate the L&I's PWIA system, including uploading required documents can be found on the L&I website.

(c) Additional information about apprentice utilization on Public Works Project can be found on the L&I website.

5.1 EXAMINATION OF THE WORK SITE AND BIDDING DOCUMENTS

A. Bidder acknowledges that it has taken steps necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and road; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during the work.

The bidder also acknowledges that it has satisfied itself as to character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including exploratory work done by the Owner, as well as from the drawings and specifications made a part of this contract. Any

failure of the Bidder to take the actions described and acknowledged in this paragraph will not relieve the Bidder from responsibility for estimating properly the difficulty and cost of successfully performing the work.

B. No statement by any officer, agent, or employee of the Agency pertaining to the physical conditions of the site of the work will be binding on the Agency other than those statements issued in the contract documents.

C. Bidders shall promptly notify the Agency of ambiguities, inconsistencies, or errors, if any, which they may discover upon examination of the Bidding Documents or of the site and local conditions.

D. Interpretations and Clarifications

1) Every request for interpretation or clarification should be submitted to the project representative as listed in the Invitation to Bid. If a Bidder does not have on-line capability, then submit in writing, addressed to the project representative at the address as listed in the Invitation to Bid. To be given consideration the request must be received seven (7) working days prior to the date fixed for the opening of the bids.

2) The Agency's responses, if there are any, which do not change the Scope of Work described in the contract documents may be mailed, delivered, faxed, or by other electronic means, to all planholders of record, at the respective address furnished for such purposes, prior to the date fixed for the receipt of bids. Such letters of clarification shall not be considered part of the contract documents and therefore need not be acknowledged by the Bidders as part of the Bid Form. The Agency will determine at its sole discretion whether or not any clarification or interpretation changes the Scope of Work and should be included in the Contract Documents.

3) Clarifications, interpretations, or supplemental instructions which do change the Scope of Work and or schedule described in the contract documents, will be issued only in the form of written ADDENDA.

4) Oral interpretations or clarifications will be without legal effect.

E. Substitutions

1) The product, equipment, materials, or methods described or noted within the Bidding Documents, whether currently available or not, are to establish a standard of quality, function, appearance and dimension. A proposed substitution shall have equal attributes in all respects.

2) No substitution will be considered unless a written request for approval is submitted by the Contractor, after Award, in accordance with the applicable provisions of Section 012500 of the specifications. If no Section 012500 is available, then see section 016000 Product Requirements, sub-section 1.5. Each such request shall describe the proposed substitution in its entirety including name of the material or equipment, drawings, catalog cuts, performance or test data and all other information required for an evaluation. The submittal shall also include a statement noting all changes required in adjoining, dependent or other interrelated work necessitated by the incorporation of the proposed substitute. The Bidder shall bear the burden of proof of merit of the proposed substitution. The Project Representative's decision of approval or disapproval of a proposed substitution shall be final.

6.1 BID PROPOSAL

A. The Bidder shall submit its bid on the forms included with these instructions. All blank spaces in the Bid Proposal Form must be properly filled in. If the bid is made by a partnership or co-partnership, it must be so stated and it must be signed in the firm's name, followed by the written signature of the signing partner. If the bid is made by a corporation, it must be signed in the name of the corporation, followed by the written signature of the officer signing, and the printed or typewritten designation of their office within the corporation. The full and complete address of the Bidder must be typed or printed on the bid in the spaces provided. The bid must be a scan of the original bid, complete with an original signature (pen to paper).

B. Except as otherwise provided in these instructions, bid proposals that are incomplete, or that are conditioned in any way, or that contain erasures, alterations, or items not called for in the contract documents, or that do not conform to the call for bids, may be rejected as non-responsive at the discretion of the Agency unless the law requires that the omission be deemed non-responsive, in which case the bid will be rejected as non-responsive. Only the amounts and information asked for on the Bid Proposal Form and the plans and specifications furnished will be considered as the bid. Bid amounts include all taxes imposed by law, **except** for Washington Sales Tax unless noted otherwise.

C. Each Bidder shall bid upon the work exactly as specified and as provided in the Bid Proposal Form. The Bidder shall bid upon all alternates if alternates are indicated on the Bid Proposal Form. When bidding on alternates for which there is no charge, the Bidder shall write the words "no charge" in the space provided on the Bid Proposal Form.

D. Bidders shall acknowledge receipt of any ADDENDA to the solicitation for bids on the Bid form. Failure to do so may result in the bid being declared non-responsive.

7.1 SUBMISSION OF BID

A. Bid responses will only be accepted electronically via email/email attachment BidBox@parks.wa.gov.

B. Marking of The Bid Response (Email Subject Line):

Subject line should include the bid's identification number, "Bid" and Company name.

- Example email subject line: NW-C9999 Bid John Smith Construction LLC
- Example email subject line: EW-C9999 Bid Sunshine Construction Corp.

C. People with disabilities who wish to request special accommodation, (e.g., sign language interpreters, braille, etc.) need to contact the Agency ten (10) working days prior to the scheduled bid opening.

D. Signature (what is acceptable):

The purpose of a signature is to ensure a manifestation of asset by the signer and to legally bind the signer to the documents submitted.

In 2020 Washington State enacted law allowing for alternatives to hardcopy original wet-ink signatures. While the Bidder cannot force any process upon the Agency, the Agency can mandate and accept alternatives to an original wet-ink signature.

The Agency will accept a picture of an original wet-ink signature, such as a PDF scan. .JPG, TIFF-Group 4 (or similar technology). These three (3) technologies are known to work. The Bidder's use of other technology is at the Bidder's risk and peril. Bids or bid formats that the Agency cannot open, and view shall be deemed non-responsive.

For clarity: Print out the competition document, review it, include any other required document(s) (such as the Bid Bond if required), complete where necessary, sign where indicated with a pen onto the paper, when you believe your bid response is ready to be submitted to the Agency, scan it as a PDF file, check the PDF file to make sure all pages are legible, then attach the file to your business email and send it to BidBox@parks.wa.gov.

It is the Agency's expectation that the Bidder's bid response email will contain a PDF attachment with all of the required documents scanned as a PDF, including any required signatures.

7.2 BID CLOCK:

After the bid opening (due date deadline), Agency staff will review the bids. The email's date and timestamp that is visible on the email, from the Agency's perspective, shall serve as the bid clock and it is this information that will be used to determine if the bid was timely.

CAUTION: Submit your bid response early as a safeguard against any technological slow-down or delays and/or malfunctions. Bids received after the deadline for any reason, no matter the cause, regardless of responsibility, will be rejected. When and whatever time the email comes in, the Agency will reference the email's timestamp to determine responsiveness.

You are welcome to follow up with an email to contracts@parks.wa.gov and ask confirmation of receipt and the Agency can send a reply to the sender of the bid response. However, our ability to respond is not instantaneous, not guaranteed, and works best if there's at least three (3) business days of time to respond.

8.1 MODIFICATION OF BID

A. Modifying And Supplementing Prior To Bid Opening:

Modifying: Modifying refers to a bid that has already been submitted to the Agency. Modifying means altering information already contained in the Bidder's bid response that has already been submitted to the Agency.

Supplementing: Supplementing refers to a bid that has already been submitted to the Agency. Supplementing means adding to the bid response for materials, documents, or information not already in the Bidder's bid response.

HOW: Bidder may modify or supplement its bid prior to the bid due date by sending a replacement bid by email to: BidBox@parks.wa.gov. In the body of the email clearly explain that this bid response is replacing an earlier one. Follow the example subject line.

Example email subject line: SW-C9999 Replacement Bid ACME Construction Inc.

Do not send in a piece of a bid response asking the Agency to link it up with the earlier bid response. Send in a full and complete replacement.

9.1 WITHDRAWAL OF BID

A. Withdrawal refers to a bid that has already been submitted to the Agency. A bid response may be withdrawn by a Bidder before the Bid Opening (due date deadline) for the bid. The FAILURE TO WITHDRAW a bid prior to the bid due date deadline exposes the Bidder to the possibility that the Agency will make a demand against the Bidders bid bond.

B. Procedure for Withdrawing a Bid Before Bid Due Date: Bidder may withdraw its bid prior to the bid due date by sending an email to: BidBox@parks.wa.gov. In the body of the email clearly explains that the earlier bid submission is being withdrawn. Follow the example subject line. Example email subject line: SW-C9999 Withdraw Bid ACME Construction Inc.

C. Procedure for Withdrawing a Bid After Bid Opening Due to Error: If a Bidder discovers an error in its bid following the bid opening, the Bidder must submit written notification of the withdrawal to contracts@parks.wa.gov within 24 hours following the bid opening. Follow the example subject line. Example email subject line: SW-C9999 Withdraw Bid ACME Construction Inc.

- The Bidder must provide written documentation of the claimed error to the satisfaction of the Agency within 72 hours following the bid opening.

- The Agency will approve or disapprove the request for withdrawal of the bid in writing. If the Bidder's request for withdrawal of its bid is approved, the Bidder will be released from further obligation to the Agency without penalty. If it is disapproved, the Agency may retain the Bidder's bid bond.

10.1 REJECTION OF BID

A. The Agency reserves the right to reject any or all bids and to waive informalities in connection with the bids.

11.1 BID BOND

A. When the total bid amount is $35,000 or less, a bid bond is not required. When the sum of the base bid plus all additive bid alternates is $35,000.00 or less, bid security is not required.

B. When the sum of the base bid plus all additive alternates is greater than $35,000.00, a bid guarantee in the amount of 5% of the base bid amount is required. Failure of the Bidder to provide bid guarantee when required shall render the bid non-responsive.

C. Acceptable forms of bid guarantee are: A bid bond. A copy of the bid bond must be included along with your bid response to the Agency. See also, Section 7.1 SUBMISSION OF BIDS – SECTION A.

D. The Bidder will allow 60 days from bid opening date for acceptance of its bid by the Agency.

E. Should the successful Bidder fail to enter into a contract and furnish a satisfactory performance bond within 15 days after receiving properly prepared contract forms from the Agency, the bid bond may be forfeited as liquidated damages for advertisements and administration of bid procedures.

F. Bid bonds must be held for the three low bids for 30 days or until a contract is executed with the successful Bidder. All other bid bonds will be released or returned to the Bidders within 15 days of the bid opening.

12.1 BID EVALUATION AND AWARD OF CONTRACT

A. Award of contract will be made by the Agency based upon any combination of the base bid and alternates that, in the Agency's sole discretion, is in the Agency's best interest considering price, schedule, and other factors. The numbering of the alternates in the bid proposal bears no relationship to the order in which the alternates may be selected by the Agency. Additionally, the Agency reserves the right to negotiate base bid prices (including changes to the contract plans and specifications) with the low responsive, responsible Bidder to bring the final contract amount within the funds available.

B. BID TABULATION, BID RECORD AND ANNOUNCEMENT OF APPARENT LOW BID:

The Agency does not guarantee when the Bid results will be released to the public. The bid results are usually released within three business days of the bid opening and often the same day. Bid results can be obtained by accessing the Washington State Parks webpage at www.parks.wa.gov/contracts (see "Construction Projects- Public works bid results"). The Bid Tabulation results may also be released through Builders Exchange of Washington at www.bxwa.com. But, Bidders are cautioned that the Washington State Parks website is the official release point for the Bid Tabulation for this competition.

The bid tabulation will identify all bids received by the Agency. Bids that were not rejected and not withdrawn prior to the bid opening will be ranked by base bid price. The first three lowest base bids will reflect detailed pricing information. The remaining Bidders will reflect only the base bid pricing. Bids that were rejected for any reason will reflect **Non-Responsive** in the bid tabulation but may include its total pricing.

The bid record will list all bids received, ordered alphabetically. Rejected bids will not show detailed pricing. The bid record is used for projects with Alternates. The Agency may consider Alternate Bid Items in any combination. The low Bidder for award purposes is the responsive Bidder offering the lowest aggregate amount for the base bid plus selected alternates, within available project funds.

Release of the Bid Tabulation or Announcement of the Apparent Low bid information that a Firm was identified as the apparent low base bid simply means that at this point in time the Agency believes the subject bid was the lowest cost responsive bid, but designation as the apparent low responsive bid is not a guarantee of a contract with the Agency. The Agency reserves the right to reevaluate the bid and determine whether the bid was responsive and responsible and successful as first thought. The Bidder identified as the apparent low responsive bid is cautioned not to commit funds, resources, and effort prior to receiving an actual executed contract. The Bidder identified as the apparent low responsive bid that commits funds, resources, and effort prior to a contract do so at its own risk and peril.

Within two (2) business days following the day of the release of the Bid Tabulation/Bid Record or the Announcement of the Apparent Low bid, the Bidder may file a Protest (Protest procedures are outlined in Section 13.1).

C. REJECTION LETTER & PROTEST: No matter the phase of the evaluation, if the Agency determines that the bid is not responsive or the Bidder is not responsible, the Agency will reject the bid/bidder, and send the bidder a Rejection Letter explaining why the bid/bidder was rejected. Within two (2) business days following the day of the release of the Rejection Letter, the Bidder may file a Protest, provided it meets one of the three (3) protest grounds (Protest procedures are outlined in Section 13.1). The Rejection Letter will be sent by email/email attachment to the email address provided by the Bidder in the Bidder's bid response.

D. RECORDS REQUEST: All submitted bids are subject to public records request once the lowest bidder has been determined and officially announced.

After the announcement of the lowest bidder, any member of the public may request access to the bid documents. No official format is required for making a records request; however, the Agency recommends that requestors submit requests using our website for public records requests:https://parks.wa.gov/about/contact-us/public-records-requests.

E. The intent of the Agency is to award a contract to the low responsive, responsible bidder by considering the following:

RESPONSIBLE - A Bidder must meet the following mandatory responsibility criteria under RCW 39.04.350 (1) to be considered a responsible Bidder and qualified to be awarded a public works project. The Bidder must:

1. At the time of bid submittal, have a certificate of registration in compliance with RCW 18.27, a plumbing contractor license in compliance with RCW 18.106, an elevator contractor license in compliance with RCW 70.87, or an electrical contractor license in compliance with RCW 19.28 as required under the provisions of those chapters;

2. Have a current state Unified Business Identifier (UBI) number;

3. If applicable, have industrial insurance coverage for the Bidder's employees working in Washington as required in RCW 51; an employment security department number as required in RCW 50; and a state excise tax registration number as required in RCW 82;

4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3);

5. If bidding on a public works project subject to the apprenticeship utilization requirements in RCW 39.04.320, 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 bid solicitation; and

6. Public Works and Prevailing Wage Training/Exemption. Bidders shall have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW. The bidder must designate a person or persons to be trained on these requirements. The training must be provided by the department of labor and industries or by a training provider whose curriculum is approved by the department. The department, in consultation with the prevailing wage advisory committee, must determine the length of the training. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection. The department of labor and industries must keep records of entities that have satisfied the training requirement or are exempt and make the records available on its website. Responsible parties may rely on the records made available by the department regarding satisfaction of the training requirement or exemption. https://lni.wa.gov/licensing-permits/public-works-projects/contractors-employers/contractor-training

7. Within the three-year period immediately preceding the bid solicitation, not have been determined by a final a 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 to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, or 49.52 RCW. By signing the Bid Proposal Form, the bidder verifies under penalty of perjury, pursuant to RCW 9A.72.085. that the bidder is in compliance with this subsection

8. Supplemental Responsibility Criteria: In addition to the mandatory Bidder responsibility, the Agency may adopt relevant supplemental criteria for determining Bidder responsibility applicable to a particular project which the Bidder must meet (RCW 39.04.350 (3)).

    a. If applicable, the Agency shall consider an overall accounting of the attached supplemental criteria for determining Bidder responsibility "DIVISION 00 SUPPLEMENTAL RESPONSIBILITY CRITERIA".

    b. At least seven (7) days prior to the bid submittal deadline, a potential Bidder may request that the Agency modify the supplemental responsibility criteria. The Agency will evaluate the information submitted by the potential Bidder and respond before the bid submittal deadline. If the evaluation results in a change of the criteria, the Agency will issue an ADDENDA to the bidding documents identifying the new criteria.

    c. Upon the Agency's request, the apparent low Bidder must supply the requested responsibility information within two (2) business days of request by the Agency. Withholding information or failure to submit all the information requested within the time provided may render the bid non-responsive and the bid/Bidder may be rejected by Rejection Letter.

    d. The Agency will not execute a contract with any other Bidder until two (2) business days after the Bidder determined to be not responsible has received the rejection letter.

RESPONSIVE - A bid will be considered responsive if its electronic response meets the following requirements:

1. It is received at the proper time and place.

2. It meets the stated requirements of the Bid Proposal Form.

3. It meets the requirements as stated in section 6.1.A of the Instructions To Bidders.

4. It is submitted by a licensed/registered contractor within the state of Washington at the time of bid opening and is not banned from bidding by the Department of Labor and Industries.

5. It is accompanied by a bid guarantee, if required.

If inconsistencies or errors are noted in the bid proposal prices, **prices shown in words have precedence over prices shown in figures**. The **unit and lump sum prices have precedence over their total amounts**; and the **total amounts have precedence over the total bid**.

The apparent low Bidder, for purpose of award, is the responsive and responsible Bidder offering the low aggregate amount for the base bid plus selected additive or deductive bid alternates and meeting all other bid submittal requirements.

13.1 PROTEST PROCEDURES

A. GENERAL:

This protest process is a courtesy provided by the Agency and it is not governed by Washington's Administrative Procedures Act (APA), RCW 34.05, nor does it confer any additional rights above and beyond what the Bidder already enjoys as a taxpayer. The purpose of this process is to allow the Agency to correct evaluation process errors and problems before a contract is executed.

Only a Bidder may file a protest regarding this competition.

The Bidder must strictly adhere to the protest process as set forth herein, the failure of which may result in a summary determination that the protest is without merit without an opportunity to cure.

B. FORM AND CONTENT:

All protests must:

- Be in writing.
- The protest must state and clearly articulate the grounds for the protest with specific facts and complete statements of the action(s) being protested.
- A description of the relief or corrective action being requested should also be included.
- All protests shall be addressed to the Procurement Coordinator.

C. CONTENT LIMITATIONS:

The Agency does not currently mandate any page limitation. However, the protest must be clearly articulated, succinct, organized, logical, and professional.

The Agency will reject protests that:

- fail to state and clearly articulate at least one of the three GROUNDS;
- contain rants, attacks, and/or disparaging or abusive remarks;
- include multiple attachments or references (document dumping, document overload); or,
- appear to require the reader piece together voluminous amounts of material to decipher the argument being made.

D. SUBMISSION OF PROTEST:

- All protests must be submitted within two (2) business days following the day of the release of the Bid Tabulation/Announcement of the Apparent Low bid or after the formal Rejection Letter is sent. For purposes of timing the day of the release of the Bid Tabulation or the day of the Rejection Letter is sent to the Bidder shall not count.

- Bidders must send all protests to: contracts@parks.wa.gov. See also Subject Line.

- SUBJECT LINE: Must include the bid's identification number, and "PROTEST" in the subject line. Failure by the Bidder to include this information in the subject line may result in Bidder's protest not being timely recognized.

E. GROUNDS WHICH MAY BE PROTESTED:

- Conflict of Interest on the part of Agency staff.
- Errors in computing the score.
- Non-compliance with procedures described in the procurement document.

Protests will be rejected as without merit if they do not clearly and convincingly meet one of the GROUNDS above and/or seems to address issues such as:

- An evaluator's professional judgment on the quality of a response, or
- The Agency's assessment of its own and/or other agencies' needs or requirements, or,
- Issues, concerns, objections, or requests for changes that were or could have been addressed prior to the bids due date deadline.

Protests that do not clearly and convincingly meet the requirements and standards described herein are without merit and may be rejected.

F. MANAGER ASSIGNMENT AND REVIEW:

Upon receipt of a protest that meets the requirements described herein, a protest review will be held by the Agency. The Agency will assign a Manager. The Manager is responsible for reviewing and investigating the Bidder's written protest and may meet with agency staff or the agency program that was involved in the competition. The Manager may consider the record and all reasonably available facts and will issue a protest determination in writing within fifteen (15) business days from receipt of the protest. If additional time is needed, the Manager will notify the protesting party of the need for additional time within 15 business days from receipt of the protest.

In the event a protest may affect the interest of another Bidder that submitted a response, the Agency may reach out to that Bidder, may provide an unedited copy of the protest to that Bidder, and may invite that Bidder to submit its views and any relevant information on the protest to the Manager.

G. PROTEST DETERMINATION AND FINDINGS AND DISSEMINATION:

The Manager's protest determination may:

- Find the protest lacking in merit and reject the protest;
- Find only technical or harmless errors in the Agency's acquisition process and determine the Agency to be in substantial compliance and reject the protest; OR
- Find merit in the protest and provide THE AGENCY options which may include:
    - Correcting the errors and re-evaluating all responses;
    - Canceling the competition and possibly for a new competition to take place; OR
    - Making other findings and determining other courses of action as appropriate.

If the Agency rejects the protest, the Agency will enter into a contract with the Apparent Successful Bidder no sooner than two (2) business days after issuance of the protest determination by email to the protesting party at the email address indicated on the party's bid documents. For the purposes of timing, the date the protest determination is sent to the protesting party shall not count.

Dissemination: The Agency will disseminate the decision to all interested Bidders vie email/email attachment to the email address provided by the Bidder in the Bidder's bid response.

H. AGENCY DECISION IS FINAL:

The Manager's protest determination constitutes the agency's final decision regarding the protest. If the protesting party disagrees with the protest determination, the Bidder may seek judicial relief in the Washington Superior Court for Thurston County within two (2) business days of the issuance of the protest determination.

I. STRICT COMPLIANCE

Strict compliance with these protest procedures is essential in furtherance of the public interest. Any aggrieved party that fails to comply strictly with these protest procedures is deemed, by such failure, to have waived and relinquished forever any right or claim with respect to alleged irregularities in connection with the solicitation or award of the Contract. No person or party may pursue any judicial or administrative proceedings challenging the solicitation or award of this Contract, without first exhausting the administrative procedures specified herein.

J. REPRESENTATION

An aggrieved party may participate personally or, if a corporation or other artificial person, by a duly authorized representative. Whether or not participating in person, an aggrieved party may be represented, at the party's own expense, by counsel.

K. COMPUTATION OF TIME

In computing any period of time prescribed by this procedure, the day of the act or event from which the designated period of time begins to run is not included. The last day of the period is included. The term "business day" does not include Sunday, Saturday, or Washington State recognized holiday.

L. ACKNOWLEDGEMENT

By submitting a bid in response to this solicitation, the Bidder acknowledges that it has reviewed and acquainted itself with the bid protest procedures herein and agrees to be bound by such procedures as a condition of submitting a bid.

14.1 EXECUTION OF CONTRACT

A. The successful bidder will be required to execute the contract and furnish performance bond and insurance certificate satisfactory to the Agency within 15 days after receiving properly prepared contract documents from the Agency.

15.1 SUBCONTRACTOR PARTICIPATION MONITORING AND REPORTING

A. Once a contract is awarded through the solicitation or proposal process, the awarded Prime Contractor is obligated to complete the vendor registration in Access Equity. Access Equity is a secure online vendor management system (B2GNow). Confidential information (Tax ID, etc.) will not be published. Prime Contractors that have previously registered with B2Gnow for any public entity, must verify the system has updated information. Contractors can access the system at:

https://omwbe.diversitycompliance.com/ or through a direct link on the Office of Minority and Women's Business Enterprises (OMWBE) website at: https://omwbe.wa.gov/.

B. Each month during the contract, the Prime Contractor will report payments to ALL Subcontractors through the Access Equity system. This monthly reporting information includes total payment in dollars made to the Subcontractor, payment dates, and any additional information required to verify payment to Subcontractors. The Prime Contractor will enter this payment information into the Access Equity system, and the Subcontractors will verify this payment information in the system. Online training is available through the Access Equity/B2Gnow system. This requirement applies to both Prime Contractors and Subcontractors.

END OF INSTRUCTIONS TO BIDDERS

/ / / / /

Diana Dupuis
Director

STATE OF WASHINGTON
WASHINGTON STATE PARKS AND RECREATION COMMISSION
1111 Israel Rd S.W. • P.O. Box 42650 • Olympia, WA 98504-2650 • (360) 902-8500
TDD (Telecommunications Device for the Deaf): (360) 664-3133
www.parks.wa.gov

April 27, 2023

To: Dan Budsberg, Project Manager

Cc: Darrel Hopkins, Region Manager
Kinnan Murray, Area Manager
Brian Yearout, CPC 4
Shari Silverman, Archeology
Al Brummitt, C&M Supervisor
Tina Edwards, SW Capital Program Coordinator

Central Files

From: Hannah Ross, Environmental Planner

Subject: ENVIRONMENTAL TRANSMITTAL – Welcome Center and Road Expansion at Illahee State Park

All the required environmental approvals have been obtained for the following PARK proposal:

The staff of the Washington State Parks and Recreation Commission proposes to construct a new 408 square foot welcome center, with a total disturbance area of 798 square feet. The renovation of the park entrance circulation system includes expanding the current one-lane road into two lanes with reconfigured parking and a vehicle turnaround. The reconfiguration of the parking lot will result in increased parking to accommodate the welcome center. The park currently does not have a welcome center, which serves a critical purpose in creating a space for park staff to contact both campers and day-use visitors. The park experiences high visitation but lacks a central check in point requiring revenue collection through iron rangers and staff interaction in the field. The park's current administrative office is sited within the maintenance building complex and does not adequately orientate or serve park visitors.

This letter transmits the following environmental approvals to you for project implementation:

1. **State Environmental Policy Act (SEPA) Compliance:** A Categorical Exemption was issued on November 7, 2022. See attachment.

2. **Governor's Executive Order 21-02 (Archaeology)**: This project was reviewed by Shari Silverman, State Park Archeologist. No additional surveying or monitoring is required. See attachment 2 for the Inadvertent Discovery Plan and Cultural Resources Checklist.

Please remember that it is your responsibility to understand all conditions of the various permits and approvals. Violation of regulatory compliance may result in civil and criminal penalties being assessed to the contractor and/or the agency.

Permit and environmental approval provisions should be reviewed at the pre-construction conference with the contractor and subsequently, with any subcontractors. Permits should be read and understood by all responsible parties prior to undertaking construction activities. A copy of the permits should be located on site with the contractor and any subcontractors during construction activities.

Attachment 1
SEPA Exemption

Diana Dupuis
Director

STATE OF WASHINGTON
WASHINGTON STATE PARKS AND RECREATION COMMISSION
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TDD (Telecommunications Device for the Deaf): (360) 664-3133
www.parks.wa.gov

November 7, 2022

To: Dan Budsburg, Project Manager

From: Hannah Ross, Environmental Planner

Subject: SEPA Categorical Exemption –Welcome Center and Road Expansion at Illahee State Park

The staff of the Washington State Parks and Recreation Commission proposes to construct a new 408 square foot welcome center, with a total disturbance area of 798 square feet. The renovation of the park entrance circulation system includes expanding the current one-lane road into two lanes with reconfigured parking and a vehicle turnaround. The reconfiguration of the parking lot will result in increased parking to accommodate the welcome center. The park currently does not have a welcome center, which serves a critical purpose in creating a space for park staff to contact both campers and day-use visitors. The park experiences high visitation but lacks a central check in point requiring revenue collection through iron rangers and staff interaction in the field. The park's current administrative office is sited within the maintenance building complex and does not adequately orientate or serve park visitors.

Best Management Practices (BMPs), such as the use of silt fencing, have been incorporated into the design to provide protection from incidental or unanticipated impacts including sediment run-off during construction activities.

Illahee State Park is located at 3540 NE Sylvan Way, Bremerton, WA 98310 in Kitsap County. The project location is situated in Section 6, Township 24N, and Range 2E.

I have determined this proposal to be categorically exempt from the procedural requirements of the State Environmental Policy Act (SEPA) under WAC 197-11-800(1)(b)(iv) **Minor new construction – Flexible thresholds** and WAC 197-11-800(2)(d)(v)(viii) **Other minor new construction.**

I have placed this determination in the agency files and have made a copy for the project file. No further SEPA documentation is required.

RESPONSIBLE OFFICIAL Chelsea Hamer

Chelsea Hamer
SW Region Environmental Planner

Attachment 2
Cultural Resources Inadvertent Discovery Plan and Checklist

Inadvertent Discoveries of Cultural Resources and Human Skeletal Remains
Illahee State Park, Kitsap County

Many of Washington's most important heritage sites reside on lands owned or managed by the Washington State Parks and Recreation Commission (WSPRC). Nearly all Washington State Parks contain one or more important historic buildings, structures, or archaeological sites. For this reason, archaeological surveys and historic building inventories are ordinarily commissioned as a part of background analysis and information gathering for park developments and undertakings. Results of these surveys are used during project planning to ensure every effort is made to avoid impacts to cultural resources. Yet, despite these efforts, there **always** remains some potential for unanticipated discoveries while working in Washington State Parks.

All unanticipated discoveries, both cultural resources and human skeletal remains, are subject to all applicable federal and state statues, regulations, and executive orders. For these reasons, the Inadvertent Discovery Plan (IDP) provides useful guidance and instructions for circumstances when cultural resources or human skeletal remains are found. Please carefully read these instructions. If you have any questions, please contact the appropriate WSPRC Area Manager or the WSPRC archaeologist assigned to the undertaking. It is also strongly recommended that anyone conducting ground-disturbing activities watch the training video produced by Washington State Dept of Ecology: Inadvertent Discovery of Cultural Resources or Human Remains: Training for Field Staff. This IDP for cultural resources and human skeletal remains is based on RCW 27.44, RCW 27.53, RCW 68.50.645, RCW 27.44.055, and RCW 68.60.055 and recommended language from the Department of Archaeology and Historic Preservation (DAHP).

INADVERDENT DISCOVERY PLAN FOR CULTURAL RESOURCES

If cultural resources are found during a project, activity in the immediate area of the find should be discontinued (**stop**), the area secured (**protect**), and the WSPRC archaeologists notified to assess the find (**notify**). ***When in doubt, assume the material is a cultural resource and implement the IDP outlined below.***

Recognizing Cultural Resources-*Types of Historic/Precontact Artifacts and/or Activity Areas That May Be Found*

- Artifacts- Both historic and precontact artifacts may be found exposed in backhoe trenches or back dirt piles.
    - Precontact artifacts may range from finished tools such as stone pestles, arrowheads/projectile points, shell beads, or polished bone tools to small pieces or "flakes" or "chips" of exotic stone such as chert, jasper, or obsidian.
    - Historic artifacts may include older (more than 50 years) nails, plates/ceramics, bottles, cans, coins, glass insulators, or bricks.
    - Old abandoned industrial materials from farming, logging, railways, lighthouses, and military installations.
- Activity Area/Cultural Features- While excavating trench lines look for evidence of buried activity areas/cultural features such as old campfire hearths or buried artifacts.

    - An area of charcoal or very dark stained soil with artifacts or burned rocks may be a fire hearth.
    - A concentration of shell with or without artifacts may be shell midden deposits.
    - Modified or stripped trees, often cedar or aspen, or other modified natural features, such as rock drawings or carvings
- Historic building foundation/structural remains- During excavation, buried historic structures (e.g., privies, building foundations) that are more than 50 years old may be found.
- Bone- Complete or broken pieces of bones may be discovered exposed in trench walls or in back dirt piles. Bone of recent age is usually transparent or white in color. Older bone is usually found in various shades of brown. Burned bone is usually black or, if heavily burned, bluish-white.

Steps to Take If a Cultural Resource Is Found During Construction

1. **Stop** if a cultural resource(s) is observed or suspected, all work within the immediate area of the discovery must stop.
2. **Protect** the area from further disturbance. Do not touch, move, or further disturb the exposed materials/artifacts. Create a protected area with temporary fencing, flagging, stakes, or other clear markings that is large enough (30 feet or larger) to protect the discovery location area. The WSPRC archaeologist can help determine the size of the protected area. Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site.
3. **Notify** the WSPRC archaeologist. If the area needs to be secured, notify the Park Ranger or Park staff as well.
4. If requested by the WSPRC archaeologist, take photographs with a scale (e.g., pen, coin, etc.) and collect geospatial information of the discovery site to document the initial finds.

What Not to Do If a Cultural Resource Is Found During Construction

- Do not remove any artifacts from the site of the discovery.
- Do not dig out objects protruding from any trench walls as this may cause further damage to artifacts and/or destroy important contextual information.
- Do not share any information about the find, including on social media, except as necessary to implement the IDP.

What Happens Next?

1. The find will be assessed by a professional archaeologist (may be a WSPRC archaeologist or an archaeology consultant).
    a. If the find is not a cultural resource, construction work may resume.
    b. If the find is a cultural resource, the WSPRC archaeologist will contact the DAHP and affected Tribes, as appropriate, to develop a suitable treatment plan for the resource.
2. Construction work may resume in the protected area after the WSPRC archaeologist assigned to the undertaking has determined that the find has been adequately investigated and, if necessary, a treatment plan and monitor are in place to protect any remaining archaeological deposits.

INADVERDENT DISCOVERY PLAN FOR HUMAN SKELETAL REMAINS

Native American burials and historic grave sites are common features on Washington State Park lands. These remains, as well as any associated artifacts or funerary objects, are protected under state law and, if the park is a federal lease, applicable federal law. If you discover human remains (or bones that you believe may be human remains) during construction, please follow these important instructions**.** It is imperative that reporting and treatment of any human remains found during construction or any ground-disturbing activities are treated with utmost dignity and respect.

Steps to Take If Human Skeletal Remains are Found During Construction

1. **Stop** if human skeletal remains observed or suspected, all work within the immediate area of the discovery must stop.
2. **Protect** the area from further disturbance. Do not touch, move, or further disturb the remains. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and shield them from being photographed. Create a protected area with temporary fencing, flagging, stakes, or other clear markings that is large enough (30 feet or larger) to protect the discovery location area. The WSPRC archaeologist can help determine the size of the protected area. Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site.
3. **Notify** local law enforcement (Park Ranger) and the appropriate county medical examiner/coroner as soon as possible. If you are unsure if the remains are human, the physical anthropologist at DAHP may be called. Also notify the Area Manager, the WSPRC archaeologist, and the WSPRC Curator of Collections/NAGRPA Specialist of the discovery of the remains.
4. If requested by the local law enforcement, the county coroner/examiner, the DAHP physical anthropologist, or the WSPRC archaeologist, take photographs with a scale (e.g., pen, coin, etc.) and geospatial information of the discovery site to document the initial finds.

What Not to Do If Human Skeletal Remains are Found During Construction

- Do not pick up or remove anything.
- Do not take any photographs of the remains unless instructed to do so by local law enforcement, the county coroner/examiner, the DAHP physical anthropologist, or the WSPRC archaeologist. If pictures are requested, be prepared to photograph them with a scale (e.g., pen, coin, etc.) and collect geospatial information of the remains.
- Do not call 911 unless you cannot reach local law enforcement or the coroner/examiner by other means.
- Do not share any information about the find, including on social media, except as necessary to implement the IDP.

What Happens Next?

1. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and decide whether those remains are forensic (crime-related) or non-forensic.
    a. If forensic, the county medical examiner/coroner will retain jurisdiction over the remains.

b. If non-forensic, the county medical examiner/coroner will report that finding to the DAHP who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected Tribes of the remains. The State Physical Anthropologist will decide whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected Tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.
Note: The WSPRC archaeologist assigned to the undertaking will be coordinating and consulting with the DAHP, affected Tribes, and other groups as necessary. Additionally, WSPRC's Curator of Collections/NAGPRA Specialist should be included on all written and/or verbal correspondence until the remains have been officially transferred from WSPRC's possession to an outside authority. Until the remains are transferred off of WSPRC's property, it is the responsibility of the Curator of Collections/NAGPRA Specialist to document and track the information regarding all human remains and associated funerary objects (including all material from excavation areas/units from which the human remains were removed).

2. Construction work may resume in the protected area after the WSPRC archaeologist assigned to the undertaking has determined that the find has been adequately investigated and, if necessary, a treatment plan and monitor are in place.

EMERGENCY CONTACTS

WSPRC Archaeologists

Jennifer Wilson, Archaeology Program Manager	(360) 787-6511 (cell)
Email: jennifer.wilson@parks.wa.gov	(360) 902-8637 (office)
Shari Silverman, Archaeologist SW Region	(435) 260-9894 (cell)
Email: shari.silverman@parks.wa.gov	(360) 902- 8640 (office)
Sarah DuBois, Archaeologist Eastern Region	(509) 972-5884 (cell)
Email: sarah.dubois@parks.wa.gov	(509) 665-4336 (office)
Sean Stcherbinine, Archaeologist NW Region	(360) 770-1419 (cell)
Email: sean.stcherbinine@parks.wa.gov	

WSPRC Curator of Collections/NAGPRA Specialist

Alicia L. Woods, Statewide Curator of Collections & NAGPRA Specialist	
Email: alicia.woods@parks.wa.gov	(360) 586-0206 (office)

State Physical Anthropologist

Guy Tasa, DAHP	(360) 790-1633 (cell)

Assistant State Physical Anthropologist

Alex Garcia-Putnam, DAHP	(360) 890-2633 (cell)

Dr. Lindsay Harle, Medical Examiner

Kitsap County Medical Examiner's Office	360.731.6843 (office)
	coroner@kitsap.gov

Local Law Enforcement

John Stanfield, Illahee State Park Ranger	(360) 280-9017 (cell) (360) 478-6460 (office)

Kitsap Area Manager

Kinnan Murray	(360) 460-3072 (cell) (360) 478-6460 (office)

CULTURAL RESOURCES REVIEW CHECKLIST

Fill out each field as appropriate for your project.
Fields or sections marked with an asterisk require a response.

This form is for public disclosure and should not contain any sensitive information.

PROJECT INFORMATION						☐Additional Info Attached
1) *CR Project Number	2022-043					
2) *Park/Property Name	84000 - Illahee					
3) *Project Name	Illahee Welcome Center & Road Expansion					
4) *Cost Code(s)	P1701-C07					
5) Grant Number	Click or tap here to enter text.					☒ N/A
6) *Regulatory Context	☐ EO 21-02	☐ Section 106	☒ Best Practices, RCW 27.53	☐ Other:	Click or tap here to enter text.	
7) Archaeology Permit Needed for Review:	☒ Not Required	☐ ARPA	☐ AA	☐ Arch Site Alteration/Excavation Permit (DAHP)	☐ Other:	Click or tap here to enter text.
8) *Landowner/Parcel Numbers:	062402-4-002-2000 (WSPRC owner) ☐ List of Additional Parcel Numbers Attached					
9) If Section 106, lead federal agency:	Click or tap here to enter text.					☒ N/A
10) If this is a USACE Project, list Corps Permit number	Click or tap here to enter text.					☒ N/A
11) Project is being done in partnership with:	Click or tap here to enter text.					☒ N/A
12) *Agency Responsible for Consultation:	☒ WSPRC is Responsible for All Consultation Tasks ☐ WSPRC Conducted Consultation on Behalf of: Click or tap here to enter text. ☐ Another Agency is Responsible for Consultation: Click or tap here to enter text.					

STATE PARKS POINTS OF CONTACT	☐ Additional Info Attached
13) Project Manager	*Dan Budsberg*
14) Job Sheet Contact	*Hannah Ross*
15) *Archaeologist	*Shari Silverman; Shari.Silverman@parks.wa.gov*
16) Historic Preservation Planner	*Alex McMurry;* Alex.McMurry@parks.wa.gov
17) Statewide Curator of Collections & NAGPRA Specialist	*Alicia Woods; Alicia.Woods@parks.wa.gov*

DAHP PROJECT NUMBER & DESKTOP REVIEW- HISTORIC PRESERVATION & ARCHAEOLOGY				☐ Additional Info Attached
18) *DAHP Project Number	*2022-05-03575*		Obtained by:	*Shari Silverman*
19) Historic Preservation Review by Alex?	☐No ☐ Yes ☒ Not Required	Date:	4/26/2023	

CULTURAL RESOURCES REVIEW CHECKLIST, cont.

This form is for public disclosure and should not contain any sensitive information.

DAHP PROJECT NUMBER & DESKTOP REVIEW- HISTORIC PRESERVATION & ARCHAEOLOGY					☐ Additional Info Attached
20) Notes Regarding Historic Preservation Review:	*No historic properties in project vicinity.*				
21) Archy Desktop Review	Date/Year	Click or tap here to enter text.	By:	Choose an item.	
22) Notes Regarding Archy Desktop Review:	Click or tap here to enter text.				

23) *STATE PARKS CONSULTATION ON PROJECT (INTRO), FIELD METHODS, & AREA OF IMPACT/AREA/FOOTPRINT

☐State Parks Did Not Consult
☐ Additional Info Attached

	Date	By	Sent To	Recipient Response	Date	Notes	N/A
DAHP Consultation-Archaeology	5/31/2022	*Shari Silverman*	*Rob Whitlam*	☒Concur ☐ Does not concur ☐ No response	5/31/2022	Click or tap here to enter text.	☐
DAHP Consultation-HP	Click or tap to enter a date.	Choose an item.	Choose an item.	☐ Concur ☐ Does not concur ☐ No response	Click or tap to enter a date.	Click or tap here to enter text.	☒
Suquamish	5/31/2022	Choose an item.	Dennis Lewarch	☒ Concur ☐ Does not concur ☐ No response	5/31/2022	Click or tap here to enter text.	☐
Choose an item.	Click or tap to enter a date.	Choose an item.	Click or tap here to enter text.	☐ Concur ☐ Does not concur ☐ No response	Click or tap to enter a date.	Click or tap here to enter text.	☐
Choose an item.	Click or tap to enter a date.	Choose an item.	Click or tap here to enter text.	☐ Concur ☐ Does not concur ☐ No response	Click or tap to enter a date.	Click or tap here to enter text.	☐

CULTURAL RESOURCE SURVEY, INVENTORY & REPORT								☐Additional Info Attached
24) *Cultural Resource Work Conducted:	☒ Archaeology Survey	☐ Historic Property Inventory	☐ Monitoring	☐ Archaeology Site Testing:	☐Other: Click or tap here to enter text.			
25) Date Survey conducted (if applicable)	10/26/2022	By:	☐ State Parks: Click or tap here to enter text. ☒ Consultant: Click or tap here to enter text. ☐ Another Agency:Click or tap here to enter text.					
26) *Archaeological Sites Identified?	☐ Yes ☒ No	Notes:	Click or tap here to enter text.					
27) *Historic Structures Recorded?	☐ Yes ☒ No	Notes:	Click or tap here to enter text.					
28) Site/HPI forms reviewed by State Parks (if applicable)	Date	Click or tap to enter a date.	By	Choose an item.				
29) Smithsonian Trinomials Requested (if applicable)	Date	Click or tap to enter a date.	By	Choose an item.				

A completed and signed checklist may be submitted as proof that cultural resource review is complete for a project

Form version 04/20/2023

CULTURAL RESOURCES REVIEW CHECKLIST, cont.

This form is for public disclosure and should not contain any sensitive information.

CULTURAL RESOURCE SURVEY, INVENTORY & REPORT					☐Additional Info Attached
30) Report(s) Associated with Project (if applicable)	Author	Steven Dampf, Michele Parvey, and Shawnee Bearcub	Agency/ Consultant Firm	Tierra Right of Way Services	
31) Report(s) Title (Year) (if applicable)	*Archaeological Resources Inventory for the Illahee State Park Welcome Center and Road Expansion Project, Kitsap County, Washington*				
32) Artifacts Collected?	☒No ☐ Yes	If yes, date Alicia Woods was consulted regarding curation:	Click or tap to enter a date.	Curation Notes:	Click or tap here to enter text.

33) *STATE PARKS CONSULTATION ON RECOMMENDATIONS & FINDINGS				☐State Parks Did Not Consult ☐Additional Info Attached			
	Date	**By**	**Sent To**	**Recipient Response**	**Date**	**Notes**	**N/A**
DAHP Consultation-Archaeology	4/13/2023	*Shari Silverman*	*Rob Whitlam*	☒Concur ☐ Does not concur ☐ No response	4/24/2023	In response to an initial concern, I told him staging was in the parking areas	☐
DAHP Consultation-HP	Click or tap to enter a date.	Choose an item.	Choose an item.	☐Concur ☐ Does not concur ☐ No response	Click or tap to enter a date.	Click or tap here to enter text.	☒
Suquamish	4/13/2023	*Shari Silverman*	Dennis Lewarch	☒Concur ☐ Does not concur ☐ No response	4/13/2023	Click or tap here to enter text.	☐
Choose an item.	Click or tap to enter a date.	Choose an item.	Click or tap here to enter text.	☐Concur ☐ Does not concur ☐ No response	Click or tap to enter a date.	Click or tap here to enter text.	☐
Choose an item.	Click or tap to enter a date.	Choose an item.	Click or tap here to enter text.	☐Concur ☐ Does not concur ☐ No response	Click or tap to enter a date.	Click or tap here to enter text.	☐

34) *For Section 106 Projects ONLY, Describe Consultation Results Below	☐Additional Info Attached ☐ Not Applicable
Click or tap here to enter text.	
Source of Section 106 Consultation Info:	Click or tap here to enter text.

35) *CONDITIONS			☐Additional Info Attached
☐	**As planned, the project may not proceed because:**		*Check all that apply*
☐ Additional CR survey/testing is needed	☐ Additional project information is needed	☐ Other:Click or tap here to enter text.	

A completed and signed checklist may be submitted as proof that cultural resource review is complete for a project

Form version 04/20/2023

CULTURAL RESOURCES REVIEW CHECKLIST, cont.

This form is for public disclosure and should not contain any sensitive information.

35) *CONDITIONS	☐Additional Info Attached
Notes:	Click or tap here to enter text.

☒	**As planned, the project <u>may</u> proceed based on the following conditions:** *Check all that apply*

☒ Inadvertent Discovery Plan Required

Whose IDP should be used for this project?	☒ State Parks Standard IDP ☐ Lead Fed Agency's IDP ☐ A Project Specifc IDP will be developed ☐ Other:

☐ Monitoring by a Professional Archaeologist (SOI Qualifications) Required

Explain specific activities and locations that require monitoring: Click or tap here to enter text.

☐ Graphic of monitoring areas is attached (can be a report figure)

☐ Archaeology Permit Required for Construction/Ground Disturbing Activities:

☐Archaeological Site Alteration and Excavation Permit (from DAHP) ☐ARPA ☐Other:Click or tap here to enter text.

☐The Following Tribes Requested Notification of Construction Dates:

Click or tap here to enter text.

☐Other Requirements:

Click or tap here to enter text.

Notes About Conditions:	Click or tap here to enter text.

36) Additional Cultural Resource Review is Warranted if… (check all that apply):

☒Change in horizontal limits of excavation/ground disturbance and/or increase in the vertical (depth) disturbance limits

☒Additional ground disturbing elements are added to the project

☐Machinery is now being used for ground disturbing activity instead of hand tools

☐Other: Click or tap here to enter text.

Alex McMurry — 4/26/2023

Signature of State Parks Historic Preservation Planner — *Date*

A completed and signed checklist may be submitted as proof that cultural resource review is complete for a project

Form version 04/20/2023

4/26/2023

Signature of State Parks Archaeologist *Date*

ILLAHEE STATE PARK
WELCOME STATION AND ENTRANCE ROAD

The following list of major items of construction has been included for Bidder's convenience in preparing a bid proposal. Exclusion of items from this summary does not indicate exclusion from project. For lump sum items, the bidder is cautioned that the drawings are the only source for measurement of project quantities, and drawings have been detailed for this purpose. In preparing a bid proposal, the Bidder should note apparent discrepancies between the list below and the drawings and consult with Engineer for verification.

BASE BID ITEMS

BID ITEM	DESCRIPTION	ESTIMATED QUANTITY	PAYMENT
1.	**TRENCH EXCAVATION SAFETY PROVISIONS**	**L.S.**	**PER LUMP SUM**

See instructions on Bid Proposal Form.

2. MOBILIATION / DEMOBILIZATION **L.S.** **PER LUMP SUM**

This item shall consist of preparatory Work and operations including, but not limited to those necessary for the movement of equipment, supplies and incidentals to the Project site, and bonding, insurance, etc.

A. Payment shall be based on a percentage of actual construction completed at the time of payment estimate.

B. Bonding/insurance and equipment hauling costs will be paid for up front upon receipt of cost verification.

3. TRAFFIC CONTROL **L.S.** **PER LUMP SUM**

This item shall consist of preparatory Work and operations including, but not limited to those necessary to provide for access into and exiting the park during the construction.

A. Payment shall be 50% when access is made operational and 50% when access is completed to designed condition.
B. Work shall include, but not limited to:
    a. Clear and Grub area shown on the traffic plan. Approximately 0.1 acres
    b. Remove fencing, park gate, signage, concrete curbing and any other obstructions in the way of the temporary traffic route.
    c. Provide a crushed rock driving surface within areas cleared.
    d. Provide all necessary traffic safety measures needed to instruct patrons on the traffic pattern.
    e. Maintain safety measures throughout the construction.
    f. Upon project completion:
        i. Remove existing asphalt apron used for bypass lane.
        ii. Remove all rock used to create drive lanes.
        iii. Re-shape surface to original condition, add top soils and seed.
        iv. Re-install fencing, signs, park gate and any other obstructions needed to construct bypass lane.

4. SITE CLEARING AND GRUBBING **L.S.** **PER LUMP SUM**

Remove all organic material, including but not limited to:

A. Welcome center site, grass surfaces and existing landscape areas. Approximately 0.2 ACRES

B. Place the cost for the bypass Site Clearing and Grubbing in the Traffic Control bid location.

5. SITE GRADING **L.S.** **PER LUMP SUM**

Includes, but not limited to:

A.	Remove asphalt (Excluding bypass apron)	approximately 9,600 S.F.
B.	Saw Cutting asphalt	approximately 500 L.F.
C.	Regrade site	approximately 0.25 acres

6. WELCOME STATION **LS.** **PER LUMP SUM**

Complete in place, including all labor, equipment, and materials necessary to construct the Welcome center as shown on the plans, including exterior concrete work.

7. UTILITIES **L.S.** **PER LUMP SUM**

Complete in place, including all labor, equipment, and materials necessary to provide power, water, fiber conduit and sewer for the Welcome Center. Work includes but not limited to:

A. Water Line approximately 40 L.F.
B. Power to Welcome center and to the EV station, approximately 150 L.F.
C. Sewer force main to the existing manhole, approximately 150 L.F.
D. Septic pump
E. Communication lines approximately 50 L.F.

8. BASE COURSE **80 C.Y.** **PER CUBIC YARD**

Complete in place, including all labor, equipment, and materials necessary to provide Base.

9. TOP COURSE (CSTC) **40 C.Y.** **PER CUBIC YARD**

Complete in place, including all labor, equipment, and materials necessary to provide CSTC approximately 40 C.Y..

10. HOT MIXED ASPHALT **140 TN** **PER TN**

Complete in place, including all labor, equipment, and materials necessary to provide HMA. Approximately 140 Tons.

11. LANDSCAPING AND FINISHING DETAILS **L.S.** **PER LUMP SUM**

Complete in place, including all labor, equipment, and materials necessary to provide the finishing details. Including but not limited to:

A. Soil preparation
B. Planting of as shown on the plans.
C. Mulching
D. Seeding
E. Maintenance
F. Asphalt stripping
G. Concrete wheelstops.

END OF SECTION

ILLAHEE STATE PARK
WELCOME STATION AND ENTRANCE ROAD

BIDS DUE:
1:00PM, THURSDAY,
SEPTEMBER 19, 2024

BID DELIVERY LOCATION:

DELIVER BIDS ELECTRONICALLY TO BIDBOX@PARKS.WA.GOV

Subject line to read: "SW-C1701 [YOUR COMPANY NAME]."

***** Bid Proposal and Signature: See Sections 7.1 and 11.1 of the Instructions to Bidders for expanded instructions for bid submittal. *****

BIDS SUBMITTED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS

**** PLEASE PRINT CLEARLY BELOW ****

TOTAL BASE BID

(NOT INCLUDING SALES TAX)

⇩ PRICE WRITTEN-OUT COMPLETELY IN WORDS ⇩	⇩ PRICE IN NUMBERS ONLY ⇩
_____ (U.S.) DOLLARS	$_____

Printed Name of Person Signing Bid Proposal ⇧	Firm Name (Printed legibly) ⇧
Title ⇧ (Estimator, Vice-President, Owner, Principal, etc.)	Physical Street Address ⇧ **(NO PO Boxes Here)**
Contractor Registration No. & Expiration Date ⇧	City ⇧ State Zip + PLUS 4
Taxpayer Identification Number ⇧	( ) Area Code Phone Number ⇧
Washington UBI Number ⇧	( ) Area Code Fax Number ⇧
Employment Security Department Number ⇧	Area Code Cellular Phone Number ⇧
PO Box for US Mail Delivery (if any) ⇧	E-Mail Address (Enter N/A if none) ⇧

Unit prices and estimated quantities shall be used to determine the Base Bid. These prices shall also be used to adjust the Contract in the event there is an increase or decrease in the estimated quantities. All costs shall be "in place" costs and complete, **excluding State Sales Tax**. *In the event of an irregularity, the unit price prevails. The Agency reserves the right to make mathematical corrections of multiplication or addition errors on the bid form.*

Trench Excavation Safety Provisions: If the contract contains any work which requires trenching exceeding a depth of four (4) feet, all costs for adequate trench safety systems shall be identified as a separate bid item in compliance with Chapter 39.04 RCW. The purpose of this provision is to ensure that the bidder agrees to comply with all relevant trench safety requirements of Chapter 49.17 RCW. This bid amount shall be considered part of the total base bid. **Include a lump sum dollar amount (even if the value is $0.00) to be considered responsive to the bid solicitation.**

Wage Certification. The bidder certifies under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct: within the three-year period immediately preceding the bid solicitation date, the bidder has not been 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.

BASE BID ITEMS

BE SURE TO INCLUDE UNIT PRICES IF THE BOX IS NOT SHADED

ITEM NO.	DESCRIPTION	EST QTY	UNIT PRICE	TOTAL AMOUNT
1.	Trench Excavation Safety Provisions	1 LS.		
2.	Mobilization / Demobilization	1 LS.		
3.	Traffic Control	1 LS.		
4.	Site Clearing and Grubbing	1 LS.		
5.	Site Grading	1 LS.		
6.	Welcome Station	1 LS.		
7.	Utilities	1 LS.		
8.	Base Course	80 CY.		
9.	Top Course	40 CY.		
10.	Hot Mix Asphalt	140 TN.		
11.	Landscaping and Finishing Details	1 LS.		
ITEM TOTAL MUST AGREE WITH PAGE 1 BID AMOUNT ➔				$

Minority and Women's Business Enterprises (MWBE), WA Small Business, WA Veteran-Owned Business Utilization Certification: The bidder certifies good faith efforts to provide opportunities to MWBEs, Small Businesses, and Veteran-Owned Businesses. If awarded, the bidder commits to utilizing these firms or approved substitutes on the project. If no such firms will be used, enter "N.A." on the first line.

Firm Name, Address and Federal I.D. #	Type of Work	Certificate Number	MBE%	WBE%	Small Business%	Veteran Business%
1						
2						
TOTALS						

Bidder may attach a separate sheet for additional MWBE Utilization Certification.

The Bidder declares that they have carefully examined the site of the proposed work, the Drawings, Specifications and all of the conditions affecting the work. Therefore, the Bidder proposes to provide all labor, equipment, materials, and permits and to perform all work as required by, and in strict accordance with the Contract Documents for the bid amounts as follows.

The Agency reserves the right to accept or reject all bids and to waive informalities. The Bidder will allow 60 days from bid opening date for acceptance of its bid by the Agency.

Bidder agrees to complete project (including accepted alternates) in accordance with drawings and specifications within **120** calendar days from the date provided on the Notice to Proceed letter.
Ai
It is agreed that liquidated damages, in the amount of **$200.00**, shall be levied for each and every calendar day by which the completion of the work is delayed beyond the time fixed for completion or extension of the contract.

Addenda: Receipt of addenda numbered [___] through [___] is hereby acknowledged.

Signature of Authorized Official

ILLAHEE STATE PARK
WELCOME STATION AND ENTRANCE ROAD

SUBCONTRACTORS UTILIZATION LIST
(If Applicable)

In compliance with the contract documents, the following subcontractor list is submitted:

SUBCONTRACTOR LISTING – RCW 39.30.060

If the base bid and the sum of the additive alternates is **ONE MILLION DOLLARS OR MORE**, the Bidder shall provide names of the subcontractors with whom the Bidder will **directly** subcontract for performance of the following work. If the Bidder intends to perform the work, the Bidder must enter its name for that category of work.

A. Submission Deadline: The completed and signed Subcontractors List must be submitted with bid.

B. List Subcontractors: The Bidder shall indicate on the Subcontractors List the names of the subcontractors with whom the Bidder, if awarded the contract, will directly subcontract for performance of the work of heating, ventilation, and air conditioning, plumbing as described in Chapter 18.106 RCW, electrical as described in Chapter 19.28 RCW, structural steel installation, and rebar installation.

C. List Bidder if Bidder Performing Work: If the Bidder will self-perform the work in any of the five areas required, the Bidder shall name itself for the work on the Subcontractors List.

D. Name Only One Firm for Each Category of Work: The Bidder shall not list more than one firm (subcontractor or Bidder) for each category of work identified, unless subcontractors vary with bid Alternatives or Additives, in which case the Bidder must indicate which firm will be used for which Alternate or Additive.

E. Substitution of Subcontractors: Substitution of any listed subcontractor may only be according to the procedure and parameters set forth in RCW 39.30.060.

F. Factors Relating to Non-Responsiveness: **Failure of the Bidder to submit the names of such subcontractors or to name itself to perform such work or the naming of two or more firms (subcontractors or Bidder) to perform the same work shall render the Bidder's bid nonresponsive and, therefore, VOID**.

G. The Subcontractor Utilization List is intended to discourage bid shopping, not to verify subcontractor qualifications. The Agency does not use the Subcontractor Utilization List as a tool to disqualify or qualify bidders.

H. Applicable to Direct Subcontractors: The requirement of this section to name the Bidders' proposed heating, ventilation and air conditioning, plumbing, electrical, structural steel installation, and rebar installation subcontractors applies only to proposed heating, ventilation and air conditioning, plumbing, electrical, structural steel installation, and rebar installation subcontractors who will contract directly with the Bidder.

1. HVAC. Electrical, Plumbing: The requirement of this section to name the bidder's proposed heating, ventilation and air conditioning, plumbing and electrical subcontractors applies only to proposed heating, ventilation, and air conditioning, plumbing and electrical subcontractors who will contract directly with the bidder.

Category of Work	**Bidder MUST check one box for each Category of Work.** If subcontracting the work, bidder must name the subcontractor.
HVAC (Heating, Ventilation & Air Conditioning)	☐ Name of Subcontractor: _____ ☐ Bidder will self-perform this work, or the project does not include this work.
Electrical	☐ Name of Subcontractor: _____ ☐ Bidder will self-perform this work, or the project does not include this work.
Plumbing	☐ Name of Subcontractor: _____ ☐ Bidder will self-perform this work, or the project does not include this work.

Bidder may attach a separate sheet for additional alternate bid subcontractors

2. Structural Steel Installation and Rebar Installation: The requirement of this section to name the bidder's proposed names of the subcontractors with whom the bidder, if awarded, will subcontract for performance of the work of structural steel installation and rebar installation.

Category of Work	**Bidder MUST check one box for each Category of Work.** If subcontracting the work, bidder must name the subcontractor.
Structural Steel Installation	☐ Name of Subcontractor: _____ ☐ Bidder will self-perform this work, or the project does not include this work.
Rebar Installation	☐ Name of Subcontractor: _____ ☐ Bidder will self-perform this work, or the project does not include this work.

Bidder may attach a separate sheet for additional alternate bid subcontractors

Signature of Authorized Official

GENERAL CONDITIONS FOR CONSTRUCTION AT WASHINGTON STATE PARKS

GENERAL CONDITIONS FOR CONSTRUCTION AT WASHINGTON STATE PARKS

PART 1 - GENERAL PROVISIONS

1.01 DEFINITIONS

A. "Application for Payment" means a written request submitted by Contractor to A/E for payment of Work completed in accordance with the Contract Documents and approved Schedule of Values, supported by such substantiating data as Owner or A/E may require.

B. “Architect,” “Engineer,” or “A/E" shall mean that person designated by the State Parks and Recreation Commission to be in charge of the work covered by this contract.

C. "Change Order" means a written instrument signed by Owner and Contractor stating their agreement upon all of the following: (1) a change in the Work; (2) the amount of the adjustment in the Contract Sum, if any, and (3) the extent of the adjustment in the Contract Time, if any.

D. "Claim" means Contractor's exclusive remedy for resolving disputes with Owner regarding the terms of a Change Order or a request for equitable adjustment, as more fully set forth in part 8.

E. “Contract Award Amount” is the sum of the Base Bid and any accepted Alternates.

F. "Contract Documents" means the Advertisement for Bids, Instructions for Bidders, completed Form of Proposal, General Conditions, Modifications to the General Conditions, Supplemental Conditions, Public Works Contract, other Special Forms, Drawings and Specifications, and all addenda and modifications thereof.

G. "Contract Sum" is the total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents, including all taxes imposed by law and properly chargeable to the Work, except Washington State sales tax.

H. "Contract Time" is the number of calendar days allotted in the Contract Documents for achieving Substantial Completion of the Work.

I. "Contractor" means the person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents.

J. "Drawings" are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, and may include plans, elevations, sections, details, schedules, and diagrams.

K. "Final Acceptance" means the written acceptance issued to Contractor by Owner after Contractor has completed the requirements of the Contract Documents, as more fully set forth in Section 6.09 B.

L. "Final Completion" means that the Work is fully and finally completed in accordance with the Contract Documents, as more fully set forth in Section 6.09 A.

M. "Force Majeure" means those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in paragraph 3.05 A.

N. "Notice" means a written notice which has been delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended or, if delivered or sent by registered or certified mail, to the last business address known to the party giving notice.

O. "Notice to Proceed" means a notice from Owner to Contractor that defines the date on which the Contract Time begins to run.

P. "Owner" shall mean the Washington State Parks and Recreation Commission and its authorized representative with the authority to enter into, administer and/or terminate contracts and make related determinations and findings.

Q. "Person" means a corporation, partnership, business association of any kind, trust, company, or individual.

R. "Prior Occupancy" means Owner's use of all or parts of the Project before Substantial Completion, as more fully set forth in Section 6.08 A.

S. "Progress Schedule" means a schedule of the Work, in a form satisfactory to Owner, as further set forth in section 3.02.

T. "Project" means the total construction of which the Work performed in accordance with the Contract Documents may be the whole or a part and which may include construction by Owner or by separate contractors.

U. "Project Manual" means the volume usually assembled for the Work which may include the bidding requirements, sample forms, and other Contract Documents.

V. "Project Record" means the separate set of Drawings and Specifications as further set forth in paragraph 4.02A.

W. "Schedule of Values" means a written breakdown allocating the total Contract Sum to each principle category of Work, in such detail as requested by Owner.

X. "Specifications" are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, and workmanship for the Work, and performance of related services.

Y. "Subcontract" means a contract entered into by Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind for or in connection with the Work.

Z. "Subcontractor" means any person, other than Contractor, who agrees to furnish or furnishes any supplies, materials, equipment, or services of any kind in connection with the Work.

AA. "Substantial Completion" means that stage in the progress of the Work where Owner has full and unrestricted use and benefit of the facilities for the purposes intended, as more fully set forth in section 6.07.

AB. "Work" means the construction and services required by the Contract Documents, and includes, but is not limited to, labor, materials, supplies, equipment, services, permits, and the manufacture and fabrication of components, performed, furnished, or provided in accordance with the Contract Documents.

1.02 ORDER OF PRECEDENCE

Any conflict or inconsistency in the Contract Documents shall be resolved by giving the documents precedence in the following order.

1. Signed Public Works Contract, including any Change Orders, and any Special Forms.
2. Supplemental Conditions.
3. General Conditions.
4. Addenda
5. Specifications--provisions in Division 1 shall take precedence over provisions of any other Division.
6. Drawings--in case of conflict within the Drawings, large scale drawings shall take precedence over small scale drawings.
7. Signed and Completed Form of Proposal.
8. Instructions to Bidders.
9. Advertisement for Bids.

1.03 EXECUTION AND INTENT

Contractor makes the following representations to Owner:

1. The Contract Sum is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work, as represented by the Contract Documents;

2. Contractor has carefully reviewed the Contract Documents, visited and examined the Project site, become familiar with the local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of the Work, the labor, materials, equipment, goods, supplies, work, services and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or affect performance of the Work or the cost or difficulty thereof;

3. Contractor is financially solvent, able to pay its debts as they mature, and possesses sufficient working capital to complete the Work and perform Contractor's obligations required by the Contract Documents; and

4. Contractor is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform the obligations required by the Contract Documents and has sufficient experience and competence to do so.

PART 2 - INSURANCE AND BONDS

2.01 CONTRACTOR'S LIABILITY INSURANCE

Prior to commencement of the Work, Contractor shall obtain all the insurance required by the Contract Documents and provide evidence satisfactory to Owner that such insurance has been procured. Review of the Contractor's insurance by Owner shall not relieve or decrease the liability of Contractor. Companies writing the insurance to be obtained by this part shall be licensed to do business under Chapter 48 RCW or comply with the Surplus Lines Law of the State of Washington. Contractor shall include in its bid the cost of all insurance and bond costs required to complete the base bid work and accepted alternates. Insurance carriers providing insurance in accordance with the Contract Documents shall be acceptable to Owner, and its A. M. Best rating shall be indicated on the insurance certificates.

A. Contractor shall maintain the following insurance coverage during the Work and for one year after Final Acceptance. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by section 5.16.

    1. Commercial General Liability (CGL) on an Occurrence Form:

        a. Completed operations/products liability;

        b. Explosion, collapse, and underground; and

        c. Employer's liability coverage.

    2. Automobile liability

B. Contractor shall comply with the Washington State Industrial Insurance Act and, if applicable, the Federal Longshoremen's and Harbor Workers' Act and the Jones Act.

C. All insurance coverages shall protect against claims for damages for personal and bodily injury or death, as well as claims for property damage, which may arise from operations in connection with the Work whether such operations are by Contractor or any Subcontractor.

D. All insurance coverages shall be endorsed to include Owner as an additional named insured for Work performed in accordance with the Contract Documents, and all insurance certificates shall evidence the Owner as an additional insured.

2.02 COVERAGE LIMITS INSURANCE COVERAGE CERTIFICATES

A. Insurance Coverage Certificates
The Contractor shall furnish acceptable proof of insurance coverage on the State of Washington Certificate of Insurance form SF500A dated 07/02/92 or an acceptable ACORD form.

B. Required Coverages
1. For a contract less than $100,000.00, the coverage required is:
   a. Public Liability Insurance – The Contractor shall at all times during the term of this contract, at its cost and expense, carry and maintain general public liability insurance, including contractual liability, against claims for bodily injury, personal injury, death or property damage occurring or arising out of services provided under this contract. This insurance shall cover claims caused by any act, omission, or negligence of the Contractor or its officers, agents, representatives, assigns or servants. The limits of liability insurance, which may be increased as deemed necessary by the contracting parties, shall be:

Each Occurrence	$1,000,000.00
General Aggregate Limits (other than products – commercial operations)	$1,000,000.00
Products – Commercial Operations Limit	$1,000,000.00
Personal and Advertising Injury Limit	$1,000,000.00
Fire Damage Limit (any one fire)	$50,000.00
Medical Expense Limit (any one person)	$5,000.00

   b. If the contract is for underground utility work, then the Contractor shall provide proof of insurance for that above in the form of Explosion, Collapse and Underground (XCU) coverage.

   c. Employers Liability on an occurrence basis in an amount not less than $1,000,000.00 per occurrence.

2. For contracts over $100,000.00 but less than $5,000,000.00 the contractor shall obtain the coverage limits as listed for contracts below $100,000.00 and General Aggregate and Products – Commercial Operations Limit of not less than $2,000,000.00.

3. Coverage for Comprehensive General Bodily Injury Liability Insurance for a contract over $5,000,000.00 is:

Each Occurrence	$2,500,000.00
General Aggregate Limits (other than products – commercial operations)	$5,000,000.00
Products – Commercial Operations limit	$5,000,000.00
Personal and Advertising Injury Limit	$2,500,000.00
Fire Damage Limit (any one fire)	$50,000.00
Medical Expense Limit (any one Person)	$5,000.00

4. For all Contracts – Automobile Liability: in the event that services delivered pursuant to this contract involve the use of vehicles or the transportation of clients, automobile liability insurance shall be required. If Contractor-owned personal vehicles are used, a Business Automobile Policy covering at a minimum Code 2 “owned autos only” must be secured. If Contractor employee’s vehicles are used, the Contractor must also include under the Business Automobile Policy Code 9, coverage for non-owned autos. The minimum limits for automobile liability is: $1,000,000.00 per occurrence, using a combined single limit for bodily injury and property damage.

5. For Contracts for Hazardous Substance Removal (Asbestos Abatement, PCB Abatement, etc.)
   a. In addition to providing insurance coverage for the project as outlined above, the Contractor shall provide Environmental Impairment Liability insurance for the hazardous substance removal as follows:

EACH OCCURRENCE	AGGREGATE
$500,000.00	$1,000,000.00

   or $1,000,000.00 each occurrence/aggregate bodily injury and property damage combined single limit.

1) Insurance certificate must state that the insurer is covering hazardous substance removal.
2) Should this insurance be secured on a “claims made” basis, the coverage must be continuously maintained for one year following the project’s “final completion” through official completion of the project, plus one year following.

For Contracts where hazardous substance removal is a subcomponent of contracted work, the general contractor shall provide to the Owner a certificate of insurance for coverage as defined in 5a. above. The State of Washington must be listed as an additional insured. This certificate of insurance must be provided to the Owner prior to commencing work.

2.03 INSURANCE COVERAGE CERTIFICATES

A. Prior to commencement of the Work, Contractor shall furnish to Owner a completed certificate of insurance coverage.

B. All insurance certificates shall name Owner's Project number and Project title.

C. All insurance certificates shall specifically require 45 (forty-five) days prior notice to Owner of cancellation or any material change, except 30 (thirty) days for surplus line insurance.

2.04 PAYMENT AND PERFORMANCE BONDS

AIA Payment and Performance Bonds, form A312, or equivalent, is required by the Owner for the work of this contract. The forms shall be obtained from the Contractor’s bonding company. The Payment Bond shall cover payment to laborers and mechanics, including payments to Employee Benefit Funds, and payments to subcontractors, material suppliers, and persons who shall supply such person or persons, or subcontractors with materials and supplies.

2.05 ALTERNATIVE SURETY

Contractor shall promptly furnish alternative security required to protect Owner and persons supplying labor or materials required by the Contract Documents if:

A. Owner has a reasonable objection to the surety; or

B. Any surety fails to furnish reports on its financial condition if requested by Owner.

2.06 BUILDER'S RISK

A. Contractor shall purchase and maintain property insurance in the amount of the Contract Sum including all Change Orders for the Work on a replacement cost basis until Substantial Completion. The insurance shall cover the interest of Owner, Contractor, and any Subcontractors, as their interests may appear. For projects not involving New Building Construction, ‘Installation Floater’ is an acceptable substitute for the Builder’s Risk Insurance.

B. Contractor property insurance shall be placed on an "all risk" basis and insure against the perils of fire and extended coverage and physical loss or damage including theft, vandalism, malicious mischief, collapse, false work, temporary buildings, debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for A/E's services and expenses required as a result of an insured loss.

C. Owner and Contractor waive all subrogation rights against each other, any Subcontractors, A/E, A/E's subconsultants, separate contractors described in section 5.20, if any, and any of their subcontractors, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this section or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by Owner as fiduciary. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

PART 3 - TIME AND SCHEDULE

3.01 PROGRESS AND COMPLETION

A. Contractor shall diligently prosecute the Work, with adequate forces, achieve Substantial Completion within the Contract Time, and achieve Final Completion within 30 (thirty) calendar days thereafter, unless otherwise noted in Division 1 of the specifications.

B. The Contractor shall notify the Engineer at least two (2) weekdays in advance if work is to be performed on a Saturday, Sunday, or legal holiday. No excavation work will be allowed on Saturdays, Sundays, or legal holidays unless specifically authorized by the Engineer.

3.02 CONSTRUCTION SCHEDULE

A. Unless otherwise provided in Division 1, Contractor shall, within 14 (fourteen) calendar days after issuance of the Notice to Proceed, submit a preliminary Progress Schedule. The Progress Schedule shall show the sequence in which Contractor proposes to perform the Work, and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals, and for acquiring materials and equipment.

B. The Progress Schedule shall be in the form of a Critical Path Method (CPM) logic network or, with the approval of the Owner, a bar chart schedule may be submitted. The scheduling of construction is the responsibility of the Contractor and is included in the contract to assure adequate planning and execution of the work. The schedule will be used to evaluate progress of the work for payment based on the Schedule of Values. The schedule shall show the Contractor's planned order and interdependence of activities, and sequence of work. As a minimum the schedule shall include:

1. Date of Notice to Proceed;
2. Activities (resources, durations, individual responsible for activity, early starts, late starts, early finishes, late finishes, etc.);
3. Utility Shutdowns;
4. Interrelationships and dependence of activities;
5. Planned vs. actual status for each activity;
6. Substantial completion;
7. Punch list;
8. Final inspection;
9. Final completion, and
10. Float time

The Schedule Duration shall be based on the Contract Time of Completion listed on the Bid Proposal form. The Owner shall not be obligated to accept any Early Completion Schedule suggested by the Contractor. The Contract Time for Completion shall establish the Schedule Completion Date.

If the Contractor feels that the work can be completed in less than the Specified Contract Time, then the Surplus Time shall be considered Project Float. This Float time shall be shown on the Project Schedule. It shall be available to accommodate changes in the work and unforeseen conditions.

Neither the Contractor nor the Owner have exclusive right to this Float Time. It belongs to the project.

C. Owner shall return comments on the preliminary Progress Schedule to Contractor within 14 (fourteen) days of receipt. Review by Owner of Contractor's schedule does not constitute an approval or acceptance of Contractor's construction means, methods, or sequencing, or its ability to complete the Work within the Contract Time. Contractor shall revise and resubmit its schedule, as necessary. Owner may withhold a portion of progress payments until a Progress Schedule has been submitted which meets the requirements of this section.

D. Contractor shall utilize and comply with the Progress Schedule. On a monthly basis, or as otherwise directed by Owner, Contractor shall submit an updated Progress Schedule at its own expense to Owner indicating actual progress. If, in the opinion of Owner, Contractor is not in conformance with the Progress Schedule for reasons other than acts of Force Majeure as identified in section 3.05, Contractor shall take

such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Progress Schedule, or revise the Progress Schedule to reconcile with the actual progress of the Work.

E. Contractor shall promptly notify Owner in writing of any actual or anticipated event which is delaying or could delay achievement of any milestone or performance of any critical path activity of the Work. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the Progress Schedule, and the action being or to be taken to correct the problem. Provision of such notice does not relieve Contractor of its obligation to complete the Work within the Contract Time.

3.03 OWNER'S RIGHT TO SUSPEND THE WORK FOR CONVENIENCE

A. Owner may, at its sole discretion, order Contractor, in writing, to suspend all or any part of the Work for up to 90 (ninety) days, or for such longer period as mutually agreed.

B. Upon receipt of a written notice suspending the Work, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of cost of performance directly attributable to such suspension. Within a period up to 90 (ninety) days after the notice is delivered to Contractor, or within any extension of that period to which the parties shall have agreed, Owner shall either:

1. Cancel the written notice suspending the Work; or

2. Terminate the Work covered by the notice as provided in the termination provisions as more fully set forth in Part 9.

C. If a written notice suspending the Work is cancelled or the period of the notice or any extension thereof expires, Contractor shall resume Work.

D. Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract Sum, or both, for increases in the time or cost of performance directly attributable to such suspension, provided Contractor complies with all requirements set forth in Part 7.

3.04 OWNER'S RIGHT TO STOP THE WORK FOR CAUSE

A. If Contractor fails or refuses to perform its obligations in accordance with the Contract Documents, Owner may order Contractor, in writing, to stop the Work, or any portion thereof, until satisfactory corrective action has been taken.

B. Contractor shall not be entitled to an equitable adjustment in the Contract Time or Contract Sum for any increased cost or time of performance attributable to Contractor's failure or refusal to perform or from any reasonable remedial action taken by Owner based upon such failure.

3.05 DELAY

A. Any delay in or failure of performance by Owner or Contractor, other than the payment of money, shall not constitute a default hereunder if and to the extent the cause for such delay or failure of performance was unforeseeable and beyond the control of the party ("Force Majeure"). Acts of Force Majeure include, but are not limited to:

1. Acts of God or the public enemy;

2. Acts or omissions of any government entity;

3. Fire or other casualty for which Contractor is not responsible;

4. Quarantine or epidemic;

5. Strike or defensive lockout;

6. Unusually severe weather, in excess of weather conditions which could not have been reasonably anticipated; and

7. Unusual delay in receipt of supplies or products which were ordered and expedited and for which no substitute reasonably acceptable to Owner was available.

B. Contractor shall be entitled to an equitable adjustment in the Contract Time for changes in the time of performance directly attributable to an act of Force Majeure, provided it makes a request for equitable adjustment according to section 7.03. Contractor shall not be entitled to an adjustment in the Contract Sum resulting from an act of Force Majeure.

C. Contractor shall be entitled to an equitable adjustment in Contract Time, and may be entitled to an equitable adjustment in Contract Sum, if the cost or time of Contractor's performance is changed due to the fault or negligence of Owner, provided the Contractor makes a request according to sections 7.02 and 7.03.

D. Contractor shall not be entitled to an adjustment in Contract Time or in the Contract Sum for any delay or failure of performance to the extent such delay or failure was caused by Contractor or anyone for whose acts Contractor is responsible.

E. To the extent any delay or failure of performance was concurrently caused by the Owner and Contractor, Contractor shall be entitled to an adjustment in the Contract Time for that portion of the delay or failure of performance that was concurrently caused, provided it makes a request for equitable adjustment according to section 7.03, but shall not be entitled to an adjustment in Contract Sum.

F. Contractor shall make all reasonable efforts to prevent and mitigate the effects of any delay, whether occasioned by an act of Force Majeure or otherwise.

G. The Owner has acquired ownership and/or easement of lands for the construction, as indicated on the drawings, without cost to the Contractor. The Contractor understands and agrees that, should it appear at any time that the Owner has not acquired title to all of the right-of-ways and lands necessary for the performance of the work under the provisions of this contract, and that if any delay in the performance of said work occasioned by the failure of the Owner, its officers, or employees to acquire a title of any of said lands or right-of-way, such failure shall extend the contract completion date the number of days equal to the period of such delay. The Contractor waives any and all claims for damages against the Owner which the Contractor may sustain by reason of this delay in the work.

3.06 NOTICE TO OWNER OF LABOR DISPUTES

A. If Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay timely performance in accordance with the Contract Documents, Contractor shall immediately give notice, including all relevant information, to Owner.

B. Contractor agrees to insert a provision in its Subcontracts and to require insertion in all sub-subcontracts, that in the event timely performance of any such contract is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor or Sub-subcontractor shall immediately notify the next higher tier Subcontractor or Contractor, as the case may be, of all relevant information concerning the dispute.

3.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

A. Liquidated Damages

1. Timely performance and completion of the Work is essential to Owner and time limits stated in the Contract Documents are of the essence. Owner will incur serious and substantial damages if Substantial Completion of the Work does not occur within the Contract Time. However, it would be difficult if not impossible to determine the exact amount of such damages. Consequently, provisions for liquidated damages are included in the Contract Documents.

2. The liquidated damage amounts set forth in the Contract Documents will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain. This amount shall be construed as the actual amount of damages sustained by the Owner, and may be retained by the Owner and deducted from periodic payments to the Contractor.

3. Assessment of liquidated damages shall not release Contractor from any further obligations or liabilities pursuant to the Contract Documents.

B. Actual Damages

Actual damages will be assessed for failure to achieve Final Completion within the time provided. Actual damages will be calculated on the basis of direct architectural, administrative, and other related costs attributable to the Project from the date when Final Completion should have been achieved, based on the date Substantial Completion is actually achieved, to the date Final Completion is actually achieved. Owner may offset these costs against any payment due Contractor.

PART 4 - SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

4.01 DISCREPANCIES AND CONTRACT DOCUMENT REVIEW

A. The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Drawings, Specifications, and other provisions of the Contract Documents.

B. The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.

C. Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Owner. If, during the performance of the Work, Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly and before proceeding with the Work affected thereby, report such conflict, error, inconsistency, or omission to A/E in writing.

D. Contractor shall do no Work without applicable Drawings, Specifications, or written modifications, or Shop Drawings where required, unless instructed to do so in writing by Owner. If Contractor performs any construction activity, and it knows or reasonably should have known that any of the Contract Documents contain a conflict, error, inconsistency, or omission, Contractor shall be responsible for the performance and shall bear the cost for its correction.

E. Contractor shall provide any work or materials the provision of which is clearly implied and is within the scope of the Contract Documents even if the Contract Documents do not mention them specifically.

F. Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.

4.02 PROJECT RECORD

A. Contractor shall legibly mark in ink on a separate set of the Drawings and Specifications all actual construction, including depths of foundations, horizontal and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes of dimensions and details, actual suppliers, manufacturers and trade names, models of installed equipment, and Change Order Proposals (COP). This separate set of Drawings and Specifications shall be the "Project Record."

B. The Project Record shall be maintained on the project site throughout the construction and shall be clearly labeled "PROJECT RECORD". The Project Record shall be updated at least weekly noting all changes and shall be available to Owner at all times.

C. Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance.

4.03 SUBMITTALS

A. "Submittals" means documents and other information required to be submitted to A/E by Contractor pursuant to the Contract Documents, showing in detail: the proposed fabrication and assembly of structural

elements; and the installation (i.e. form, fit, and attachment details) of materials and equipment. Submittals include, but are not limited to, drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, samples, and similar materials furnished by Contractor to explain in detail specific portions of the Work required by the Contract Documents. For materials and equipment to be incorporated into the Work, Contractor submittal shall include the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the item. When directed, Contractor shall submit all samples at its own expense. Owner may duplicate, use, and disclose Submittals provided in accordance with the Contract Documents.

B. Contractor shall coordinate all Shop Drawings, and review them for accuracy, completeness, and compliance with the Contract Documents and shall indicate its approval thereon as evidence of such coordination and review. Where required by law, Shop Drawings shall be stamped by an appropriate professional licensed by the state of Washington. Shop Drawings submitted to A/E without evidence of Contractor's approval shall be returned for resubmission. Contractor shall review, approve, and submit Shop Drawings with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of Owner or separate contractors. Contractor's submittal schedule shall allow a reasonable time for A/E review. A/E will review, approve, or take other appropriate action on the Shop Drawings. Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings until the respective submittal has been reviewed and the A/E has approved or taken other appropriate action. Owner and A/E shall respond to Shop Drawing submittals with reasonable promptness. Any Work by Contractor shall be in accordance with reviewed Shop Drawings. Submittals made by Contractor which are not required by the Contract Documents may be returned without action.

C. Approval, or other appropriate action with regard to Submittals, by Owner or A/E shall not relieve Contractor of responsibility for any errors or omissions in such Submittals, nor from responsibility for compliance with the requirements of the Contract Documents. Unless specified in the Contract Documents, review by Owner or A/E shall not constitute an approval of the safety precautions employed by Contractor during construction, or constitute an approval of Contractor's means or methods of construction. If Contractor fails to obtain approval before installation and the item or work is subsequently rejected, Contractor shall be responsible for all costs of correction.

D. If Shop Drawings show variations from the requirements of the Contract Documents, Contractor shall describe such variations in writing, separate from the Shop Drawings, at the time it submits the Shop Drawings containing such variations. If A/E approves any such variation, an appropriate Change Order will be issued. If the variation is minor and does not involve an adjustment in the Contract Sum or Contract Time, a Change Order need not be issued; however, the modification shall be recorded upon the Project Record.

E. Unless otherwise provided in Division I, Contractor shall submit to A/E for approval 5 (five) copies of all Submittals. Unless otherwise indicated, 3 (three) sets of all Submittals shall be retained by A/E and 2 (two) sets shall be returned to Contractor.

4.04 ORGANIZATION OF SPECIFICATIONS

Specifications are prepared in sections which conform generally with trade practices. These sections are for Owner and Contractor convenience and shall not control Contractor in dividing the Work among the Subcontractors or in establishing the extent of the Work to be performed by any trade.

4.05 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS

A. The Drawings, Specifications, and other documents prepared by A/E are instruments of A/E's service through which the Work to be executed by Contractor is described. Neither Contractor nor any Subcontractor shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by A/E, and A/E shall be deemed the author of them and will, along with any rights of Owner, retain all common law, statutory, and other reserved rights, in addition to the copyright. All copies of these documents, except Contractor's set, shall be returned or suitably accounted for to A/E, on request, upon completion of the Work.

B. The Drawings, Specifications, and other documents prepared by the A/E, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any

Subcontractor on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Owner and A/E. Contractor and Subcontractors are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications, and other documents prepared by A/E appropriate to and for use in the execution of their Work.

C. Contractor and all Subcontractors grant a non-exclusive license to Owner, without additional cost or royalty, to use for its own purposes (including reproduction) all Shop Drawings, together with the information and diagrams contained therein, prepared by Contractor or any Subcontractor. In providing Shop Drawings, Contractor and all Subcontractors warrant that they have authority to grant to Owner a license to use the Shop Drawings, and that such license is not in violation of any copyright or other intellectual property right. Contractor agrees to defend and indemnify Owner pursuant to the indemnity provisions in section 5.03 and 5.23 from any violations of copyright or other intellectual property rights arising out of Owner's use of the Shop Drawings hereunder, or to secure for Owner, at Contractor's own cost, licenses in conformity with this section.

D. The Shop Drawings and other submittals prepared by Contractor, Subcontractors of any tier, or its or their equipment or material suppliers, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor of any tier, or material or equipment supplier, on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Owner. The Contractor, Subcontractors of any tier, and material or equipment suppliers are granted a limited license to use and reproduce applicable portions of the Shop Drawings and other submittals appropriate to and for use in the execution of their Work under the Contract Documents.

PART 5 - PERFORMANCE

5.01 CONTRACTOR CONTROL AND SUPERVISION

A. Contractor shall supervise and direct the Work, using its best skill and attention, and shall perform the Work in a skillful manner. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, unless the Contract Documents give other specific instructions concerning these matters. Contractor shall disclose its means and methods of construction when requested by Owner.

B. Performance of the Work shall be directly supervised by a competent superintendent who is satisfactory to Owner and has authority to act for Contractor. The superintendent shall not be changed without the prior written consent of Owner. Owner may require Contractor to remove the superintendent from the Work or Project site, if Owner reasonably deems the superintendent incompetent, careless, or otherwise objectionable, provided Owner has first notified Contractor in writing and allowed a reasonable period for transition. The superintendent shall be on-site at all times while the Work is being performed, unless approved in writing by owner, in advance.

C. Contractor shall be responsible to Owner for acts and omissions of Contractor, Subcontractors, and their employees and agents.

D. Contractor shall enforce strict discipline and good order among Contractor's employees and other persons performing the Work. Contractor shall not permit employment of persons not skilled in tasks assigned to them. Contractor's employees shall at all times conduct business in a manner which assures fair, equal, and nondiscriminatory treatment of all persons. Owner may, by written notice, request Contractor to remove from the Work or Project site any employee Owner reasonably deems incompetent, careless, or otherwise objectionable.

E. Contractor shall, at all times, keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed Shop Drawings, permits, and permit drawings.

F. Contractor shall ensure that its owner(s) and employees, and those of its Subcontractors, comply with the Ethics in Public Service Act RCW 42.52, which, among other things, prohibits state employees from having an economic interest in any public works contract that was made by, or supervised by, that employee. Contractor shall remove, at its sole cost and expense, any of its, or its Subcontractors', employees, if they are in violation of this act.

5.02 PERMITS, FEES, AND NOTICES

A. The Owner has obtained a Shorelines Substantial Development Permit and/or other environmental permits as required for this project. The permits with provisions which affect the construction methods or schedule have been incorporated into these specifications. The Contractor shall abide by all restrictions noted in these permits as the construction is in progress.

B. All other permits or fees required by local, state or federal governmental agencies necessary for the construction of this project shall be obtained and paid by the Contractor. Only the cost for the building permit will be reimbursed by the Owner.

C. The Contractor shall conform to all local, State and National Codes in all phases of this project. Where conflicts arise between plans, specifications and code requirements, the code shall prevail unless the plans or specifications are more stringent.

5.03 PATENTS AND ROYALTIES

Contractor is responsible for, and shall pay, all royalties and license fees. Contractor shall defend, indemnify, and hold Owner harmless from any costs, expenses, and liabilities arising out of the infringement by Contractor of any patent, copyright, or other intellectual property right used in the Work; however, provided that Contractor gives prompt notice, Contractor shall not be responsible for such defense or indemnity when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents. If Contractor has reason to believe that use of the required design, process, or product constitutes an infringement of a patent or copyright, it shall promptly notify Owner of such potential infringement.

5.04 PREVAILING WAGES

A. Contractor and all subcontractors shall pay the prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of the Department of Labor and Industries. The schedule of prevailing wage rates for the locality or localities of the Work is determined by the Industrial Statistician of the Department of Labor and Industries. It is the Contractor's responsibility to verify the applicable prevailing wage rate.

B. Before payment is made by the Owner to the Contractor for any work performed by the Contractor and subcontractors whose work is included in the application for payment, the Contractor shall submit, or shall have previously submitted to the Owner for the Project, a Statement of Intent to Pay Prevailing Wages, approved by the Department of Labor and Industries, certifying the rate of hourly wage paid and to be paid each classification of laborers, workers, or mechanics employed upon the Work by Contractor and Subcontractors. Such rates of hourly wage shall not be less than the prevailing wage rate.

C. Prior to release of retainage, the Contractor shall submit to the Owner an Affidavit of Wages Paid, approved by the Department of Labor and Industries, for the Contractor and every subcontractor, of any tier, that performed work on the Project.

D. Disputes regarding prevailing wage rates shall be referred for arbitration to the Director of the Department of Labor and Industries. The arbitration decision shall be final and conclusive and binding on all parties involved in the dispute as provided for by RCW 39.12.060.

E. Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the prefiled statement(s) of intent, as approved. Copies of the approved intent statement(s) shall be posted on the job site with the address and telephone number of the Industrial Statistician of the Department of Labor and Industries where a complaint or inquiry concerning prevailing wages may be made.

F. In compliance with chapter 296-127 WAC, Contractor shall pay to the Department of Labor and Industries the currently established fee(s) for each statement of intent and/or affidavit of wages paid submitted to the Department of Labor and Industries for certification.

G. Copies of approved Intents to Pay Prevailing Wages for the Contractor and all subcontractors shall be submitted with the Contractor's first application for payment. As additional subcontractors perform work on

the project, their approved Intent forms shall be submitted with the Contractor's next application for payment.

H. The Contractor or subcontractor directly contracting for "Off-Site, Prefabricated, Non-Standard, Project Specific Items" shall identify and report information required on the affidavit of wages paid form filed with the Department of Labor and Industries. The Contractor shall include language in its subcontracts requiring subcontractors and lower-tier subcontractors to comply with the reporting requirements for "Off-Site, Prefabricated, Non-Standard, Project Specific Item(s)" on the affidavit of wages paid.

The reporting requirement for Items shall apply for all public works contracts estimated to cost over $1 million entered into by the Owner and Contractor between September 1, 2010 and December 31, 2013.

"Off-site, prefabricated, nonstandard, project specific item(s)" means products or items that are:

1. Made primarily of architectural or structural precast concrete, fabricated steel, pipe and pipe systems, or sheet metal and sheet metal duct work;
2. Produced specifically for the public work and not considered to be regularly available shelf items;
3. Produced or manufactured by labor expended to assemble or modify standard items; and
4. Produced at an off-site location outside Washington.

The Contractor or subcontractor shall comply with the reporting requirements and instructions on the affidavit of wages paid form, and shall report the following information on the affidavit of wages paid form submitted to the Department of Labor and Industries in order to comply with the reporting requirements for use of "Off-Site, Prefabricated, Non-Standard, Project Specific item(s)":

1. The estimated cost of the public works project;
2. The name of the awarding agency and the project title;
3. The contract value of the off-site, prefabricated, nonstandard, project specific item(s) produced outside of Washington State, including labor and materials; and
4. The name, address, and federal employer identification number of the contractor that produced the off-site, prefabricated, nonstandard, project specific item(s).

The owner may direct the contractor, at no additional cost to the owner, to remove and substitute any subcontractor(s) found to be out of compliance with the "Off-Site Prefabricated Non-Standard Project Specific Item(s)" reporting requirements more than one time as determined by the Department of Labor and Industries.

I. The Contractor and all subcontractors shall promptly submit to the Owner certified payroll copies if requested.

5.05 HOURS OF LABOR

A. Contractor shall comply with all applicable provisions of RCW 49.28 and they are incorporated herein by reference. Pursuant to that statute, no laborer, worker, or mechanic employed by Contractor, any Subcontractor, or any other person performing or contracting to do the whole or any part of the Work, shall be permitted or required to work more than eight (8) hours in any one calendar day, provided, that in cases of extraordinary emergency, such as danger to life or property, the hours of work may be extended, but in such cases the rate of pay for time employed in excess of eight (8) hours of each calendar day shall be not less than one and one-half times (x1.5) the rate allowed for this same amount of time during eight (8) hours service.

B. Notwithstanding the preceding paragraph, RCW 49.28 permits a contractor or subcontractor in any public works contract subject to those provisions, to enter into an agreement with its employees in which the employees work up to ten (10) hours in a calendar day. No such agreement may provide that the employees work ten-hour days for more than four (4) calendar days a week. Any such agreement is subject to approval by the employees. The overtime provisions of RCW 49.28 shall not apply to the hours, up to forty (40) hours per week, worked pursuant to any such agreement.

5.06 NONDISCRIMINATION

A. Discrimination in all phases of employment is prohibited by, among other laws and regulations, Title VII of the Civil Rights Act of 1964, the Vietnam Era Veterans Readjustment Act of 1974, sections 503 and 504 of the Vocational Rehabilitation Act of 1973, the Equal Employment Act of 1972, the Age Discrimination Act of

1967, the Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, Presidential Executive Order 11246, Executive Order 11375, the Washington State Law Against Discrimination, RCW 49.60, and Gubernatorial Executive Order 85-09. These laws and regulations establish minimum requirements for affirmative action and fair employment practices which Contractor must meet.

B. During performance of the Work:

1. Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, nor commit any other unfair practices as defined in RCW 49.60.

2. Contractor shall, in all solicitations or advertisements for employees placed by or for it, state that the contractor is an “equal opportunity employer”.

3. Contractor shall send to each labor union, employment agency, or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union, employment agency, or workers' representative of Contractor's obligations according to the Contract Documents and RCW 49.60.

4. Contractor shall permit access to its books, records, and accounts, and to its premises by Owner, and by the Washington State Human Rights Commission, for the purpose of investigation to ascertain compliance with this section of the Contract Documents.

5. Contractor shall include the provisions of this section in every Subcontract.

C. Nondiscrimination Requirement. During the term of this Contract, Contractor, including any subcontractor, shall not discriminate on the bases enumerated at RCW 49.60.530(3). In addition, Contractor, including any subcontractor, shall give written notice of this nondiscrimination requirement to any labor organizations with which Contractor, or subcontractor, has a collective bargaining or other agreement.

D. Obligation to Cooperate. Contractor, including any subcontractor, shall cooperate and comply with any Washington state agency investigation regarding any allegation that Contractor, including any subcontractor, has engaged in discrimination prohibited by this Contract pursuant to RCW 49.60.530(3).

E. Default. Notwithstanding any provision to the contrary, Owner may suspend Contractor, including any subcontractor, upon notice of a failure to participate and cooperate with any state agency investigation into alleged discrimination prohibited by this Contract, pursuant to RCW 49.60.530(3). Any such suspension will remain in place until Owner receives notification that Contractor, including any subcontractor, is cooperating with the investigating state agency. In the event Contractor, or subcontractor, is determined to have engaged in discrimination identified at RCW 49.60.530(3), Owner may terminate this Contract in whole or in part, and Contractor, subcontractor, or both, may be referred for debarment as provided in RCW 39.26.200. Contractor or subcontractor may be given a reasonable time in which to cure this noncompliance, including implementing conditions consistent with any court-ordered injunctive relief or settlement agreement.

F. Remedies for Breach. Notwithstanding any provision to the contrary, in the event of Contract termination or suspension for engaging in discrimination, Contractor, subcontractor, or both, shall be liable for contract damages as authorized by law including, but not limited to, any cost difference between the original contract and the replacement or cover contract and all administrative costs directly related to the replacement contract, which damages are distinct from any penalties imposed under Chapter 49.60, RCW. Owner shall have the right to deduct from any monies due to Contractor or subcontractor, or that thereafter become due, an amount for damages Contractor or subcontractor will owe Owner for default under this provision.

5.07 SAFETY PRECAUTIONS

A. In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoid work interruptions. For these purposes, the Contractor shall:

1. Follow Washington Industrial Safety and Health Act (WISHA) regional directives and provide a site-specific safety program that will require an accident prevention and hazard analysis plan for the contractor and each subcontractor on the work site. The Contractor shall submit a site-specific safety plan to the Owner's representative prior to the initial scheduled construction meeting.

2. Provide adequate safety devices and measures including, but not limited to, the appropriate safety literature, notice, training, permits, placement and use of barricades, signs, signal lights, ladders, scaffolding, staging, runways, hoist, construction elevators, shoring, temporary lighting, grounded outlets, wiring, hazardous materials, vehicles, construction processes, and equipment required by Chapter 19.27 RCW, State Building Code (International Building, Electrical, Mechanical, Fire, and Uniform Plumbing Codes); Chapter 212-12 WAC, Fire Marshal Standards, Chapter 49.17 RCW, WISHA; Chapter 296-155 WAC, Safety Standards for Construction Work; Chapter 296-65 WAC; WISHA Asbestos Standard; WAC 296-62-071, Respirator Standard; WAC 296-62, General Occupation Health Standards, WAC 296-24, General Safety and Health Standards, WAC 296-24, General Safety and Health Standards, Chapter 49.70 RCW, and Right to Know Act.

3. Comply with the State Environmental Policy Act (SEPA), Clean Air Act, Shoreline Management Act, and other applicable federal, state, and local statutes and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources.

4. Post all permits, notices, and/or approvals in a conspicuous location at the construction site.

5. Provide any additional measures that the Owner determines to be reasonable and necessary for ensuring a safe environment in areas open to the public. Nothing in this part shall be construed as imposing a duty upon the Owner or A/E to prescribe safety conditions relating to employees, public, or agents of the Contractors.

6. The Contractor shall make available a list of hazardous products being used on the project, and their respective Material Safety Data Sheets (MSDS) to the Engineer. This information will be required at the pre-construction conference.

B. In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to materials, supplies, and equipment whether on site or stored off-site; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of adjacent property and utilities when prosecution of the Work may affect them.

C. Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Owner. Owner shall, at all times, have a right of access to all records of exposure.

D. Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.

1. Information. At a minimum, Contractor shall inform persons working on the Project site of:

   a. The requirements of chapter 296-62 WAC, General Occupational Health Standards;
   b. Any operations in their work area where hazardous chemicals are present; and
   c. The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and material safety data sheets required by chapter 296-62 WAC.

2. Training. At a minimum, Contractor shall provide training for persons working on the Project site which includes:

a. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
b. The physical and health hazards of the chemicals in the work area;
c. The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
d. The details of the hazard communications program developed by Contractor, or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

E. Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:

1. Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site, any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances", in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 days on the Project site.

2. Contractor shall promptly notify Owner of all spills or releases of any hazardous substances which are otherwise required to be reported to any regulatory agency and pay the cost of cleanup. Contractor shall promptly notify Owner of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project site by any regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project site.

F. All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.

G. In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.

H. Nothing provided in this section shall be construed as imposing any duty upon Owner or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

5.08 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

A. Contractor shall confine all operations, including storage of materials, to Owner-approved areas.

B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be provided by Contractor only with the consent of Owner and without expense to Owner. The temporary buildings and utilities shall remain the property of Contractor and shall be removed by Contractor at its expense upon completion of the Work.

C. Contractor shall use only established roadways or temporary roadways authorized by Owner. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by federal, state, or local law or regulation.

D. Ownership and control of all materials or facility components to be demolished or removed from the Project site by Contractor shall immediately vest in Contractor upon severance of the component from the facility or severance of the material from the Project site. Contractor shall be responsible for compliance with all

laws governing the storage and ultimate disposal. Contractor shall provide Owner with a copy of all manifests and receipts evidencing proper disposal when required by Owner or applicable law.

E. Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site. Materials and equipment may be stored on the premises subject to approval of Owner. When Contractor uses any portion of the Project site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.

F. Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Substantial Completion, and shall repair or replace without cost to Owner any damage or loss that may occur, except damages or loss caused by the acts or omissions of Owner. Contractor shall also protect and be responsible for any damage or loss to the Work, or to the materials or equipment, after the date of Substantial Completion, and shall repair or replace without cost to Owner any such damage or loss that might occur, to the extent such damages or loss are caused by the acts or omissions of Contractor, or any Subcontractor.

G. Any removed item shall be salvaged without undue damage and stockpiled in a neat and orderly fashion in an area designated by the Engineer. All removed items shall remain the property of the Owner, unless, due to their condition, they are rejected by the Engineer. All materials of whatever nature that are rejected shall be properly disposed by the Contractor in compliance with all laws and regulations.

H. If designated campsites or emergency overflow areas are approved for use, the Contractor shall comply with all campground rules and regulations of the Washington State Parks and Recreation Commission and the park manager.

5.09 PRIOR NOTICE OF EXCAVATION

A. "Excavation" means an operation in which earth, rock, or other material on or below the ground is moved or otherwise displaced by any means, except the tilling of soil less than 12 (twelve) inches in depth for agricultural purposes, or road ditch maintenance that does not change the original road grade or ditch flow line. Before commencing any excavation, Contractor shall provide notice of the scheduled commencement of excavation to all owners of underground facilities or utilities, through locator services.

5.10 UNFORESEEN PHYSICAL CONDITIONS

A. If Contractor encounters conditions at the site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Owner promptly and in no event later than 7 (seven) days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.

B. If such conditions differ materially and cause a change in Contractor's cost of, or time required for, performance of any part of the Work, the Contractor may be entitled to an equitable adjustment in the Contract Time or Contract Sum, or both, provided it makes a request therefore as provided in part 7.

5.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, VEGETATION, UTILITIES, AND IMPROVEMENTS

A. Contractor shall protect from damage all existing structures, equipment, improvements, utilities, and vegetation: at or near the Project site; and on adjacent property of a third party, the locations of which are made known to or should be known by Contractor. Contractor shall repair any damage, including that to the property of a third party, resulting from failure to comply with the requirements of the Contract Documents or failure to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly, Owner may have the necessary work performed and charge the cost to Contractor.

B. Contractor shall only remove trees when specifically authorized to do so, and shall protect vegetation that will remain in place.

C. In general, the locations of existing major utilities and equipment, whether above ground or underground, are indicated on the drawings. This information has been obtained from utility maps and verbal

descriptions. The Engineer does not guarantee the accuracy or completeness of this information. Other above ground or underground facilities not shown on the drawings may be encountered during the course of the work for which the Contractor is fully responsible to properly locate and identify within the construction area.

D. Existing above ground and underground facilities and appurtenant structures, which includes but is not limited to, power transmission and distribution, telephone, alarm systems, sanitary sewers, gas services, water service and house or yard drains and fences, shall be located, protected, maintained, relocated, rerouted, removed and restored as may be necessary by the Contractor for completion of the work, but in a manner satisfactory to their respective owners and operators of the services and to the Engineer with the least possible interruption to existing services.

E. The Contractor shall be responsible for location and maintenance of existing utilities and improvements. Under no circumstances will errors or omissions in location of utilities or improvements, whether they be visible from the surface, buried, or otherwise obscured, be considered as a basis for a claim for additional compensation by the Contractor.

F. All utilities shall be protected and maintained in continuous operation except where special arrangements have been made with the appropriate utility owner. All damaged utilities shall be restored to original condition, subject to the approval of its owner and at the Contractor's own expense.

G. If requested, the Contractor shall provide record information about locations, depths, and dimensions of lines, appurtenances, and structures, and any other relevant information about electrical power, water, sewer, and other utilities.

H. The Contractor shall provide the Engineer with the data required to make a detailed set of record plans. This data will be obtained and recorded by the Contractor during construction on plans supplied by the Engineer. The Contractor shall ensure that the data is obtained. Typical information to be gathered includes the locations of:

1. Buried utilities
2. Junctions of sewer wyes
3. Junctions of electrical taps
4. Clean-outs
5. Deflection points of utilities
6. Valves

I. Procedure for obtaining this information will be developed by the Engineer working with the Contractor.

J. Contractor shall protect all existing facilities using whatever methods are necessary, subject to the Engineer's approval. Trees, shrubs, vegetation, or lawn shall not be damaged, scarred, or destroyed unless deemed necessary for work on this contract. All trees damaged during construction shall be immediately repaired using SEAL AND HEAL or other materials as directed by the Engineer. Any damage to the above-mentioned items shall be repaired at the Contractor's expense and to the Engineer's satisfaction.

K. In the event that archaeological resources are found or unearthed on public land during the performance of this contract, the Contractor shall be required to comply with RCW 27.44 and RCW 27.53 and the rules and regulations of the office of Archaeology and Historic Preservation, including compliance with all archaeological excavation permit requirements.

5.12 LAYOUT OF WORK

A. Contractor shall plan and lay out the Work in advance of operations so as to coordinate all work without delay or revision.

B. Contractor shall lay out the Work from Owner-established baselines and bench marks indicated on the Drawings, and shall be responsible for all field measurements in connection with the layout. Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. Contractor shall be responsible for executing the Work to the lines

and grades that may be established. Contractor shall be responsible for maintaining or restoring all stakes and other marks established.

C. The indicated limits of work shall be the controlling factor in the Contractor's scope of operation and no payment shall be due for work done out of the limits. Damage to areas not in the Contractor's work area shall be repaired at the Contractor's expense. Questions of what constitutes the work area shall be determined by the Engineer. Only the best methods of construction will be allowed.

D. The Engineer may adjust or relocate any portion of the system to meet site requirements or to improve the system without additional compensation to the Contractor, provided such adjustments do not represent appreciable costs for additional labor and materials.

5.13 MATERIAL AND EQUIPMENT

A. All equipment, material, and articles incorporated into the Work shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents. References in the Specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard quality and shall not be construed as limiting competition. Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of A/E, is equal to that named in the specifications, unless otherwise specifically provided in the Contract Documents.

B. Contractor shall do all cutting, fitting, or patching that may be required to make its several parts fit together properly, or receive or be received by work of others set forth in, or reasonably implied by, the Contract Documents. Contractor shall not endanger any work by cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other contractor unless approved in advance by Owner.

C. Should any of the Work be found defective, or in any way not in accordance with the Contract Documents, this work, in whatever stage of completion, may be rejected by Owner.

D. The Contractor shall furnish proof of equality in all respects to the specified items when proposing alternate brands or materials. Any significant deviations from specifications, drawings, or equality must be noted by the Contractor when submitting alternate products or materials for approval. The Engineer shall be the sole judge of the equality and suitability of any products, materials, or components proposed by the Contractor as alternates to specified items. The Contractor shall bear all costs and make all secondary changes required to incorporate an approved substitute or alternate into the work. No offers for substitution will be acknowledged from suppliers, distributors, manufacturers, or subcontractors.

5.14 AVAILABILITY AND USE OF UTILITY SERVICES

A. Owner shall make all reasonable utilities available to Contractor from existing outlets and supplies, as specified in the Contract Documents. Unless otherwise provided in the Contract Documents, the utility service consumed shall be charged to or paid for by Contractor at prevailing rates charged to Owner or, where the utility is produced by Owner, at reasonable rates determined by Owner. Contractor will carefully conserve any utilities furnished.

B. Contractor shall, at its expense and in a skillful manner satisfactory to Owner, install and maintain all necessary temporary connections and distribution lines, together with appropriate protective devices, and all meters required to measure the amount of each utility used for the purpose of determining charges. Prior to the date of Final Acceptance, Contractor shall remove all temporary connections, distribution lines, meters, and associated equipment and materials.

5.15 TESTS AND INSPECTION

A. Contractor shall maintain an adequate testing and inspection program and perform such tests and inspections as are necessary or required to ensure that the Work conforms to the requirements of the Contract Documents. Contractor shall be responsible for inspection and quality surveillance of all its Work and all Work performed by any Subcontractor. Unless otherwise provided, Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. Contractor shall give Owner timely notice of when and where tests and

inspections are to be made. Contractor shall maintain complete inspection records and make them available to Owner.

B. Owner may, at any reasonable time, conduct such inspections and tests as it deems necessary to ensure that the Work is in accordance with the Contract Documents. Owner shall promptly notify Contractor if an inspection or test reveals that the Work is not in accordance with the Contract Documents. Unless the subject items are expressly accepted by Owner, such Owner inspection and tests are for the sole benefit of Owner and do not:

1. Constitute or imply acceptance;
2. Relieve Contractor of responsibility for providing adequate quality control measures;
3. Relieve Contractor of responsibility for risk of loss or damage to the Work, materials, or equipment;
4. Relieve Contractor of its responsibility to comply with the requirements of the Contract Documents; or
5. Impair Owner's right to reject defective or nonconforming items, or to avail itself of any other remedy to which it may be entitled.

C. Neither observations by an inspector retained by Owner, the presence or absence of such inspector on the site, nor inspections, tests, or approvals by others, shall relieve Contractor from any requirement of the Contract Documents, nor is any such inspector authorized to change any term or condition of the Contract Documents.

D. Contractor shall promptly furnish, without additional charge, all facilities, labor, material and equipment reasonably needed for performing such safe and convenient inspections and tests as may be required by Owner. Owner may charge Contractor any additional cost of inspection or testing when Work is not ready at the time specified by Contractor for inspection or testing, or when prior rejection makes re-inspection or retest necessary. Owner shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

E. The Owner shall have the right to appoint an Inspector who will have the authority to reject materials or workmanship which does not fulfill the requirements of these specifications. In case of dispute, the Contractor may appeal to the Engineer whose decision shall be final. The acceptance of any material by the Inspector shall not hinder its subsequent rejection if found defective. Rejected materials and workmanship shall be replaced promptly or be made good by the Contractor without additional cost to the Owner.

F. Contractor shall deliver one (1) key for each type of lock installed on the project to the Engineer to enable the Engineer to enter all facilities under construction for the purpose of inspection. This includes temporary as well as State Parks' key-coded locks. All keys for key-coded locks shall be delivered to the Engineer as they are made available to the Contractor. These coded keys shall then be signed out to the Contractor on an accountable basis for security purposes.

5.16 CORRECTION OF NONCONFORMING WORK

A. If a portion of the Work is covered contrary to the requirements in the Contract Documents, it must, if required in writing by Owner, be uncovered for Owner's observation and be replaced at the Contractor's expense and without change in the Contract Time.

B. If, at any time prior to Final Completion, Owner desires to examine the Work, or any portion of it, which has been covered, Owner may request to see such Work and it shall be uncovered by Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an adjustment in the Contract Sum for the costs of uncovering and replacement, and, if completion of the Work is thereby delayed, an adjustment in the Contract Time, provided it makes a request therefore as provided in part 7. If such Work is not in accordance with the Contract Documents, the Contractor shall pay the costs of examination and reconstruction.

C. Contractor shall promptly correct Work found by Owner not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.

D. If, within one year after the date of Substantial Completion of the Work or designated portion thereof, or within one year after the date for commencement of any system warranties established under section 6.08, or within the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Contractor shall correct it promptly after receipt of written notice from Owner to do so. Owner shall give such notice promptly after discovery of the condition. This period of one year shall be extended, with respect to portions of Work first performed after Substantial Completion, by the period of time between Substantial Completion and the actual performance of the Work. Contractor's duty to correct with respect to Work repaired or replaced shall run for one year from the date of repair or replacement. Obligations under this paragraph shall survive Final Acceptance.

E. Contractor shall remove from the Project site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by Owner.

F. If Contractor fails to correct nonconforming Work within a reasonable time after written notice to do so, Owner may replace, correct, or remove the nonconforming Work and charge the cost thereof to the Contractor.

G. Contractor shall bear the cost of correcting destroyed or damaged Work, whether completed or partially completed, caused by Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

H. Nothing contained in this section shall be construed to establish a period of limitation with respect to other obligations which Contractor might have according to the Contract Documents. Establishment of the time period of one (1) year as described in paragraph 5.16D relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the Contractor's obligation to comply with the Contract Documents may be sought to be enforced, including the time within which such proceedings may be commenced.

I. If Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, Owner may do so instead of requiring its removal and correction, in which case the Contract Sum may be reduced as appropriate and equitable.

5.17 CLEAN UP

Contractor shall at all times keep the Project site, including hauling routes, infrastructures, utilities, and storage areas, free from accumulations of waste materials. Before completing the Work, Contractor shall remove from the premises its rubbish, tools, scaffolding, equipment, and materials. Upon completing the Work, Contractor shall leave the Project site in a clean, neat, and orderly condition satisfactory to Owner. If Contractor fails to clean up as provided herein, and after reasonable notice from Owner, Owner may do so and the cost thereof shall be charged to Contractor.

5.18 ACCESS TO WORK

Contractor shall provide Owner and A/E access to the Work in progress wherever located.

5.19 OTHER CONTRACTS

Owner may undertake or award other contracts for additional work at or near the Project site. Contractor shall reasonably cooperate with the other contractors and with Owner's employees and shall carefully adapt scheduling and perform the Work in accordance with these Contract Documents to reasonably accommodate the other work.

5.20 SUBCONTRACTORS AND SUPPLIERS

A. 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:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable, have:

    a. Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW;
    b. A Washington Employment Security Department number, as required in Title 50 RCW;
    c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
    d. An electrical contractor license, if required by Chapter 19.28 RCW;
    e. An elevator contractor license, if required by Chapter 70.87 RCW.

4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).
5. On a project subject to the apprenticeship utilization requirements in RCW 39.04.320, 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.

B. Prior to submitting the first Application for Payment, Contractor shall furnish in writing to Owner, on Owner provided form(s), the names, addresses, telephone numbers, and Tax Identification Numbers (TIN) of all subcontractors, as well as suppliers providing materials in excess of $2,500.00 which Contractor believes to be MBE or WBE owned businesses, or have identified themselves to the Contractor as MBE or WBE, or are Washington State OMWBE certified. The Contractor shall indicate the anticipated dollar value of each MWBE subcontract. Contractor shall utilize subcontractors and suppliers, which are experienced and qualified, and meet the requirements of the Contract Documents, if any. Contractor shall not utilize any subcontractor or supplier to whom the Owner has a reasonable objection, and shall obtain Owner's written consent before making any substitutions or additions. The Owner may direct the Contractor, at no additional cost to the Owner, to remove and substitute any subcontractor(s) found to be out of compliance with the "Off-Site Prefabricated Non-Standard Project Specific Items" reporting requirements more than one time as determined by the Department of Labor and Industries and as defined in EHB 2805 that amends RCW 39.04.

C. All Subcontracts must be in writing. By appropriate written agreement, Contractor shall require each Subcontractor, so far as applicable to the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward Owner in accordance with the Contract Documents. Each Subcontract shall preserve and protect the rights of Owner in accordance with the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. However, nothing in this paragraph shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.

D. Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors. No Subcontracting of any of the Work shall relieve Contractor from its responsibility for the performance of the Work in accordance with the Contract Documents or any other obligations of the Contract Documents.

E. Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Owner provided that:

1. The assignment is effective only after termination by Owner for cause pursuant to section 9.01 and only for those Subcontracts which Owner accepts by notifying the Subcontractor in writing; and

2. After the assignment is effective, Owner will assume all future duties and obligations toward the Subcontractor which Contractor assumed in the Subcontract.

3. The assignment is subject to the prior rights of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

5.21 WARRANTY OF CONSTRUCTION

A. In addition to any special warranties provided elsewhere in the Contract Documents, Contractor warrants that all Work conforms to the requirements of the Contract Documents and is free of any defect in equipment, material, or design furnished, or workmanship performed, by Contractor.

B. With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:

1. Obtain all warranties that would be given in normal commercial practice;

2. Require all warranties to be executed, in writing, for the benefit of Owner;

3. Enforce all warranties for the benefit of Owner, if directed by Owner; and

4. Be responsible to enforce any subcontractor's, manufacturer's, or supplier's warranty should they extend beyond the period specified in the Contract Documents.

C. The obligations under this section shall survive Final Acceptance.

5.22 INDEMNIFICATION

A. Contractor shall defend, indemnify, and hold Owner and A/E harmless from and against all claims, demands, losses, damages, or costs, including but not limited to damages arising out of bodily injury or death to persons and damage to property, caused by or resulting from:

1. The sole negligence of Contractor or any of its Subcontractors;

2. The concurrent negligence of Contractor, or any Subcontractor, but only to the extent of the negligence of Contractor or such Subcontractor; and

3. The use of any design, process, or equipment which constitutes an infringement of any United States patent presently issued, or violates any other proprietary interest, including copyright, trademark, and trade secret.

B. In any action against Owner and any other entity indemnified in accordance with this section, by any employee of Contractor, its Subcontractors, Sub-subcontractors, agents, or anyone directly or indirectly employed by any of them, the indemnification obligation of this section shall not be limited by a limit on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under RCW Title 51, the Industrial Insurance Act, or any other employee benefit acts. In addition, Contractor waives immunity as to Owner and A/E only, in accordance with RCW Title 51.

PART 6 - PAYMENTS AND COMPLETION

6.01 CONTRACT SUM

Owner shall pay Contractor the Contract Sum for performance of the Work, in accordance with the Contract Documents. The Contract Sum shall include all taxes imposed by law and properly chargeable to the Project, including sales tax.

6.02 SCHEDULE OF VALUES

Before submitting its first Application for Payment, Contractor shall submit to Owner for approval a breakdown allocating the total Contract Sum to each principle category of work, in such detail as requested by Owner ("Schedule of Values"). The approved Schedule of Values shall include appropriate amounts for demobilization, record drawings, O&M manuals, and any other requirements for Project closeout, and shall be used by Owner as the basis for progress payments. Payment for Work shall be made only for and in accordance with those items included in the Schedule of Values.

6.03 APPLICATION FOR PAYMENT

A. At monthly intervals, unless determined otherwise by Owner, Contractor shall submit to Owner an itemized Application for Payment for Work completed in accordance with the Contract Documents and the approved Schedule of Values. Each application shall be supported by such substantiating data as Owner may require.

B. By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with RCW 60.28.010, as their interests appeared in the last preceding certificate of payment. By submitting an Application for Payment, Contractor is recertifying that the representations set forth in section 1.03 are true and correct, to the best of Contractor's knowledge, as of the date of the Application for Payment.

C. At the time it submits an Application for Payment, Contractor shall analyze and reconcile, to the satisfaction of Owner, the actual progress of the Work with the Progress Schedule.

D. If authorized by Owner, the Application for Payment may include request for payment for material delivered to the Project site and suitably stored, or for completed preparatory work. Payment may similarly be requested for material stored off the Project site, provided Contractor complies with or furnishes satisfactory evidence of the following:

1. The material will be placed in a warehouse that is structurally sound, dry, lighted, and suitable for the materials to be stored;

2. The warehouse is located within a 10-mile radius of the Project. Other locations may be utilized, if approved in writing, by Owner;

3. Only materials for the Project are stored within the warehouse (or a secure portion of a warehouse set aside for the Project);

4. Contractor furnishes Owner a certificate of insurance extending Contractor's insurance coverage for damage, fire, and theft to cover the full value of all materials stored, or in transit;

5. The warehouse (or secure portion thereof) is continuously under lock and key, and only Contractor's authorized personnel shall have access;

6. Owner shall at all times have the right of access in company of Contractor;

7. Contractor and its surety assume total responsibility for the stored materials; and

8. Contractor furnishes to Owner certified lists of materials stored, bills of lading, invoices, and other information as may be required, and shall also furnish notice to Owner when materials are moved from storage to the Project site.

6.04 PROGRESS PAYMENTS

A. Owner shall make progress payments, in such amounts as Owner determines are properly due, within 30 days after receipt of a properly executed Application for Payment. Owner shall notify Contractor in accordance with RCW 39.76 if the Application for Payment does not comply with the requirements of the Contract Documents.

B. Owner shall retain 5% (five percent) of the amount of each progress payment until forty-five (45) days after Final Acceptance and receipt of all documents required by law or the Contract Documents, including, at Owner's request, consent of surety to release of the retainage. In accordance with RCW 60.28, Contractor may request that monies reserved be retained in a fund by Owner, deposited by Owner in a bank or savings and loan, or placed in escrow with a bank or trust company to be converted into bonds and securities to be held in escrow with interest to be paid to Contractor. Owner may permit Contractor to provide an appropriate bond in lieu of the retained funds.

C. Title to all Work and materials covered by a progress payment shall pass to Owner at the time of such payment free and clear of all liens, claims, security interests, and encumbrances. Passage of title shall not, however, relieve Contractor from any of its duties and responsibilities for the Work or materials, or waive any rights of Owner to insist on full compliance by Contractor with the Contract Documents.

D. Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in RCW 39.76.

6.05 PAYMENTS WITHHELD

A. Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary to protect Owner from loss or damage for reasons including but not limited to:

1. Work not in accordance with the Contract Documents;

2. Reasonable evidence that the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum;

3. Work by Owner to correct defective Work or complete the Work in accordance with section 5.17;

4. Failure to perform in accordance with the Contract Documents; or

5. Cost or liability that may occur to Owner as the result of Contractor's fault or negligent acts or omissions.

B. In any case where part or all of a payment is going to be withheld for unsatisfactory performance, Owner shall notify Contractor in accordance with RCW 39.76.

6.06 RETAINAGE AND BOND CLAIM RIGHTS

A. Prior to release of the contract retainage, an "Affidavit of Wages Paid", approved by the Washington State Department of Labor and Industries, must be on file in the Owner's office. Contracts over $20,000, including tax, necessitate a clearance from the Washington State Department of Revenue and the Washington State Department of Employment Security. The Owner shall initiate action for the releases from the Departments of Revenue and Employment Security.

B. RCW chapters 39.08 and 60.28, concerning the rights and responsibilities of Contractor and Owner with regard to the performance and payment bonds and retainage, are made a part of the Contract Documents by reference as though fully set forth herein.

C. In accordance with RCW 60.28, the lien period for filing liens against the contract retainage shall be forty-five (45) days. Persons performing labor or furnishing supplies toward the completion of the contract who intend to file a lien against the contract retainage must do so within forty-five (45) days from the date of Final Acceptance of the contract by the Owner and in the manner as described in RCW 39.08.030.

6.07 SUBSTANTIAL COMPLETION

Substantial Completion is the stage in the progress of the Work (or portion thereof designated and approved by Owner) when the construction is sufficiently complete, in accordance with the Contract Documents, so Owner can fully occupy the Work (or the designated portion thereof) for the use for which it is intended. All Work other than incidental corrective or punch list work shall be completed. Substantial Completion shall not have been achieved if all systems and parts are not functional, if utilities are not connected and operating normally, if all required occupancy permits have not been issued, or if the Work is not accessible by normal vehicular and pedestrian traffic routes. The date Substantial Completion is achieved shall be established in writing by Owner. Contractor may request an early date of Substantial Completion which must be approved by Change Order. Owner's occupancy of the Work or designated portion thereof does not necessarily indicate that Substantial Completion has been achieved.

6.08 PRIOR OCCUPANCY

A. Owner may, upon written notice thereof to Contractor, take possession of or use any completed or partially completed portion of the Work ("Prior Occupancy") at any time prior to Substantial Completion. Unless otherwise agreed in writing, Prior Occupancy shall not: be deemed an acceptance of any portion of the Work; accelerate the time for any payment to Contractor; prejudice any rights of Owner provided by any insurance, bond, guaranty, or the Contract Documents; relieve Contractor of the risk of loss or any of the

obligations established by the Contract Documents; establish a date for termination or partial termination of the assessment of liquidated damages; or constitute a waiver of claims.

B. Notwithstanding anything in the preceding paragraph, Owner shall be responsible for loss of or damage to the Work resulting from Prior Occupancy. Contractor's one (1) year duty to repair and any system warranties shall begin on building systems activated and used by Owner as agreed in writing by Owner and Contractor.

6.09 FINAL COMPLETION, ACCEPTANCE, AND PAYMENT

A. Final Completion shall be achieved when the Work is fully and finally complete in accordance with the Contract Documents. The date Final Completion is achieved shall be established by Owner in writing.

B. Final Acceptance is the formal action of Owner acknowledging Final Completion. Prior to Final Acceptance, Contractor shall, in addition to all other requirements in the Contract Documents, submit to Owner a written notice of any outstanding disputes or claims between Contractor and any of its Subcontractors, including the amounts and other details thereof. Neither Final Acceptance, nor final payment, shall release Contractor or its sureties from any obligations of these Contract Documents or the Public Works Bond, or constitute a waiver of any claims by Owner arising from Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Acceptance of final payment by Contractor, or any Subcontractor, shall constitute a waiver and release to Owner of all claims by Contractor, or any such Subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of Owner relating to or arising out of the Work, except for those Claims made in accordance with the procedures, including the time limits, set forth in part 8.

PART 7 - CHANGES

7.01 CHANGES IN THE WORK

A. Owner may, at any time and without notice to Contractor's surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by Owner causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made as provided in section 7.02 or 7.03, respectively, and such adjustment(s) shall be incorporated into a Change Order.

B. If Owner desires to order a change in the Work, it may request a written Change Order Proposal (COP) from Contractor. Contractor shall submit a Change Order Proposal within 14 (fourteen) days of the request from Owner, or within such other period as mutually agreed. Contractor's Change Order Proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the Work and for any expense or inconvenience, disruption of schedule, or loss of efficiency or productivity occasioned by the change in the Work.

C. Upon receipt of the Change Order proposal, or a request for equitable adjustment in the Contract Sum or Contract Time, or both, as provided in sections 7.02 and 7.03, Owner may accept or reject the proposal, request further documentation, or negotiate acceptable terms with Contractor. Pending agreement on the terms of the Change Order, Owner may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained Owner's approval. All Work done pursuant to any Owner-directed change in the Work shall be executed in accordance with the Contract Documents.

D. If Owner and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment.

E. If Owner and Contractor are unable to reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, Contractor may at any time in writing, request a final offer from Owner. Owner shall provide Contractor with its written response within 30 (thirty) days of Contractor's request. Owner may also provide Contractor with a final offer at any time. If Contractor rejects Owner's final offer, or the parties are otherwise unable to reach agreement, Contractor's only remedy shall be to file a Claim as provided in part 8.

F. Field Authorization

1. The Field Authorization (FA) is executed as a directive to proceed with work when the processing time for an approved change order would impact the project.

2. A scope of work must be defined, a maximum not to exceed cost agreed upon, and any estimated modification to the contract completion time determined. The method of final cost verification must be noted and supporting cost data must be submitted in accordance with the requirements of Part 7 of the General Conditions. Upon satisfactory submittal and approval of supporting cost data, the completed FA will be processed into a change order. No payment will be made to the Contractor for FA work until that FA is converted to a Change Order.

7.02 CHANGES IN THE CONTRACT SUM

A. General Application

1. The Contract Sum shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Sum in its Change Order Proposal.

2. If the cost of Contractor's performance is changed due to the fault or negligence of Owner, or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Sum in accordance with the following procedure. No change in the Contract Sum shall be allowed to the extent: Contractor's changed cost of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible; the change is concurrently caused by Contractor and Owner; or the change is caused by an act of Force Majeure as defined in Section 3.05.

   a. A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to Owner within 7 (seven) days of the occurrence of the event giving rise to the request. For purposes of this part, "occurrence" means when Contractor knew, or in its diligent prosecution of the Work should have known, of the event giving rise to the request. If Contractor believes it is entitled to an adjustment in the Contract Sum, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such records and, if requested shall promptly furnish copies of such records to Owner.

   b. Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that occurred more than 7 (seven) days before Contractor's written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Sum; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible the amount of the adjustment in Contract Sum requested. Failure to properly give such written notice shall, to the extent Owner’s interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

   c. Within 30 (thirty) days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph a. above with additional supporting data. Such additional data shall include, at a minimum: the amount of compensation requested, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the damages claimed, but that the damages claimed were actually a result of the act, event, or condition complained of and that the Contract Documents provide entitlement to an equitable adjustment to Contractor for such act, event, or condition; and documentation sufficiently detailed to permit an informed analysis

of the request by Owner. When the request for compensation relates to a delay, or other change in Contract Time, Contractor shall demonstrate the impact on the critical path, in accordance with section 7.03C. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

d. Pending final resolution of any request made in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.

e. Any requests by Contractor for an equitable adjustment in the Contract Sum and in the Contract Time that arise out of the same event(s) shall be submitted together.

3. The value of any Work covered by a Change Order, or of any request for an equitable adjustment in the Contract Sum, shall be determined by one of the following methods:

   a. On the basis of a fixed price as determined in paragraph 7.02B.
   b. By application of unit prices to the quantities of the items involved as determined in paragraph 7.02C.
   c. On the basis of time and material as determined in paragraph 7.02D.

4. When Owner has requested Contractor to submit a Change Order proposal, Owner may direct Contractor as to which method in subparagraph 3 above to use when submitting its proposal. Otherwise, Contractor shall determine the value of the Work, or a request for an equitable adjustment, on the basis of the fixed price method.

B. Change Order Pricing -- Fixed Price

When the fixed price method is used to determine the value of any Work covered by a Change Order or a request for an equitable adjustment in the Contract Sum, the following procedures shall apply:

1. Contractor's Change Order Proposal, or request for adjustment in the Contract Sum, shall be accompanied by a complete itemization of the costs, including labor, material, subcontractor costs, and overhead and profit. The costs shall be itemized in the manner set forth below, and shall be submitted on breakdown sheets in a form approved by Owner.

2. All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.

3. If any of Contractor's pricing assumptions are contingent upon anticipated actions of Owner, Contractor shall clearly state them in the proposal or request for an equitable adjustment.

4. The cost of any additive or deductive changes in the Work shall be calculated as set forth below, except that overhead and profit shall not be included on deductive changes in the Work. Where a change in the Work involves additive and deductive work by the same Contractor or Subcontractor, small tools, overhead, profit, bond, and insurance markups will apply to the net difference.

5. If the total cost of the change in the Work or request for equitable adjustment does not exceed $1,000, Contractor shall not be required to submit a breakdown if the description of the change in the Work or request for equitable adjustment is sufficiently definitive for Owner to determine fair value.

6. If the total cost of the change in the Work or request for equitable adjustment is between $1,000 and $2,500, Contractor may submit a breakdown in the following level of detail if the description of the change in the Work or if the request for equitable adjustment is sufficiently definitive to permit the Owner to determine fair value:

   a. lump sum labor;
   b. lump sum material;
   c. lump sum equipment usage;
   d. overhead and profit as set forth below; and
   e. insurance and bond costs as set forth below.

7. Any request for adjustment of Contract Sum based upon the fixed price method shall include only the following items:

   a. Craft labor costs: These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. Craft hours should cover direct labor, as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:

      1) Basic wages and benefits: Hourly rates and benefits as stated on the Department of Labor and Industries approved "statement of intent to pay prevailing wages." Direct supervision shall be a reasonable percentage not to exceed 15% (fifteen percent) of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.

      2) Worker's insurance: Direct contributions to the state of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by the Department of Labor and Industries.

      3) Federal insurance: Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.

      4) Travel allowance: Travel allowance and/or subsistence, if applicable, not exceeding those allowances established by regional labor union agreements, which are itemized and identified separately.

      5) Safety: Cost incurred due to the Washington Industrial Safety and Health Act, which shall be a reasonable percentage not to exceed 2% (two percent) of the sum of the amounts calculated in (1), (2), and (3) above.

   b. Material costs: This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs shall be developed first from actual known costs, second from supplier quotations or if these are not available, from standard industry pricing guides. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges, shall be itemized.

   c. Equipment costs: This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for construction equipment only if used solely for the changed Work, or for additional rental costs actually incurred by the Contractor. Equipment charges shall be computed on the basis of actual invoice costs or if owned, from the current edition of one of the following sources:

      1) Associated General Contractors - Washington State Department of Transportation (AGC-WSDOT) Equipment Rental Agreement; current edition, on the Contract execution date.

      2) The state of Washington Utilities and Transportation Commission for trucks used on highways.

      3) The National Electrical Contractors Association for equipment used on electrical work.

      4) The Mechanical Contractors Association of America for equipment used on mechanical work.

      The Data Quest Rental Rate (Blue Book) shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed that shown in the AGC WSDOT Equipment Rental Agreement, current edition, on the Contract execution date.

   d. Allowance for small tools, expendables, and consumable supplies: Small tools consist of tools which cost $250 or less and are normally furnished by the performing contractor. The maximum rate for small tools shall not exceed the following:

1) For Contractor, 3% (three percent) of direct labor costs.

2) For Subcontractors, 5% (five percent) of direct labor costs.

Expendables and consumable supplies directly associated with the change in Work must be itemized.

e. Subcontractor costs: This is defined as payments Contractor makes to Subcontractors for changed Work performed by Subcontractors of any tier. The Subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.

f. Allowance for overhead: This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Owner of any change in the Contract Sum but not to the cost of any change in the Contract Time for which contractor has been compensated pursuant to the conditions set forth in Section 7.03. This allowance shall compensate Contractor for all non-craft labor, temporary construction facilities, field engineering, schedule updating, record drawings, home office cost, B&O taxes, office engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the change in the Work. It shall be strictly limited in all cases to a reasonable amount, mutually acceptable, or if none can be agreed upon to an amount not to exceed the rates below:

1) For projects where the Contract Award Amount is under $3 million, the following shall apply:

a) For Contractor, for any Work actually performed by Contractor's own forces, 16% (sixteen percent) of the first $50,000 of the cost, and 4% (four percent) of the remaining cost, if any.

b) For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 16% (sixteen percent) of the first $50,000 of the cost, and 4% (four percent) of the remaining cost, if any.

c) For Contractor, for any work performed by its Subcontractor(s), 6% (six percent) of the first $50,000 of the amount due each Subcontractor, and 4% (four percent) of the remaining amount if any.

d) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% (four percent) of the first $50,000 of the amount due the sub-Subcontractor, and 2% (two percent) of the remaining amount if any.

e) The cost to which overhead is to be applied shall be determined in accordance with subparagraphs a.-e. above.

2) For projects where the Contract Award Amount is equal to or exceeds $3 million, the following shall apply:

a) For Contractor, for any Work actually performed by Contractor's own forces, 12% (twelve percent) of the first $50,000 of the cost, and 4% (four percent) of the remaining cost, if any.

b) For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 12% (twelve percent) of the first $50,000 of the cost, and 4% (four percent) of the remaining cost, if any.

c) For Contractor, for any Work performed by its Subcontractor(s), 4% (four percent) of the first $50,000 of the amount due each Subcontractor, and 2% (two percent) of the remaining amount if any.

d) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% (four percent) of the first $50,000 of the amount due the sub-Subcontractor, and 2% (two percent) of the remaining amount if any.

e) The cost to which overhead is to be applied shall be determined in accordance with subparagraphs a.- e. above.

g. Allowance for profit: This is an amount to be added to the cost of any change in contract sum, but not to the cost of change in Contract Time for which contractor has been compensated pursuant to the conditions set forth in section 7.03. It shall be limited to a reasonable amount, mutually acceptable, or if none can be agreed upon, to an amount not to exceed the rates below:

1) For Contractor or Subcontractor of any tier for work performed by their forces, 6% (six percent) of the cost developed in accordance with Section 7.02 b. 7a.- e.

2) For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, 4% (four percent) of the Subcontractor cost developed in accordance with Section 7.02 b. 7a. - h.

h. Cost of change in insurance or bond premium: This is defined as:

1) Contractor's liability insurance: The cost of any changes in Contractor's liability insurance arising directly from execution of the Change Order; and

2) Public works bond: The cost of the additional premium for Contractor's bond arising directly from the changed Work.

The costs of any change in insurance or bond premium shall be added after overhead and allowance for profit are calculated in accordance with subparagraph f. and g. above.

C. Change Order Pricing -- Unit Prices

1. Whenever Owner authorizes Contractor to perform Work on a unit-price basis, Owner's authorization shall clearly state:

a. Scope of work to be performed;
b. Type of reimbursement including pre-agreed rates for material quantities; and
c. Cost limit of reimbursement.

2. Contractor shall:

a. Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, Contractor shall identify workers assigned to the Change Order Work and areas in which they are working;
b. Leave access as appropriate for quantity measurement; and
c. Not exceed any cost limit(s) without Owner's prior written approval.

3. Contractor shall submit costs in accordance with paragraph 7.02B. and satisfy the following requirements:

a. Unit prices shall include reimbursement for all direct and indirect costs of the Work, including overhead and profit, and bond and insurance costs; and
b. Quantities must be supported by field measurement statements signed by Owner.

D. Change Order Pricing -- Time-and-Material Prices

1. Whenever Owner authorizes Contractor to perform Work on a time-and-material basis, Owner's authorization shall clearly state:

a. Scope of Work to be performed;
b. Type of reimbursement including pre-agreed rates, if any, for material quantities or labor; and
c. Cost limit of reimbursement.

2. Contractor shall:

a. Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, identify workers assigned to the Change Order Work and areas in which they are working;
b. Identify on daily time sheets all labor performed in accordance with this authorization. Submit copies of daily time sheets within 2 working days for Owner's review;
c. Leave access as appropriate for quantity measurement;
d. Perform all Work in accordance with this section as efficiently as possible; and
e. Not exceed any cost limit(s) without Owner's prior written approval.

3. Contractor shall submit costs in accordance with paragraph 7.02B and additional verification supported by:

a. Labor detailed on daily time sheets; and
b. Invoices for material.

7.03 CHANGES IN THE CONTRACT TIME

A. The Contract Time shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Time in its Change Order Proposal.

B. If the time of Contractor's performance is changed due to an act of Force Majeure, or due to the fault or negligence of Owner or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Time in accordance with the following procedure. No adjustment in the Contract Time shall be allowed to the extent Contractor's changed time of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible.

1. A request for an equitable adjustment in the Contract Time shall be based on written notice delivered within 7 (seven) days of the occurrence of the event giving rise to the request. If Contractor believes it is entitled to adjustment of Contract Time, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such record and if requested, shall promptly furnish copies of such record to Owner.

2. Contractor shall not be entitled to an adjustment in the Contract Time for any events that occurred more than 7 (seven) days before Contractor's written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Time; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible the amount of the adjustment in Contract Time requested. Failure to properly give such written notice shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

3. Within 30 (thirty) days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph 7.03B.2 with additional supporting data. Such additional data shall include, at a minimum: the amount of delay claimed, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the delay claimed, but that the delay claimed was actually a result of the act, event, or condition complained of, and that the Contract Documents provide entitlement to an equitable adjustment in Contract Time for such act, event, or condition; and supporting documentation sufficiently detailed to permit an informed analysis of the request by Owner. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

4. Pending final resolution of any request in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.

C. Any change in the Contract Time covered by a Change Order, or based on a request for an equitable adjustment in the Contract Time, shall be limited to the change in the critical path of Contractor's schedule attributable to the change of Work or event(s) giving rise to the request for equitable adjustment. Any Change Order proposal or request for an adjustment in the Contract Time shall demonstrate the impact on the critical path of the schedule. Contractor shall be responsible for showing clearly on the Progress

Schedule that the change or event: had a specific impact on the critical path, and except in case of concurrent delay, was the sole cause of such impact; and could not have been avoided by resequencing of the Work or other reasonable alternatives.

D. Contractor may request compensation for the cost of a change in Contract Time in accordance with this paragraph, 7.03D, subject to the following conditions:

1. The change in Contract Time shall solely be caused by the fault or negligence of Owner or A/E;

2. Compensation under this paragraph is limited to changes in Contract Time for which Contractor is not entitled to be compensated under section 7.02;

3. Contractor shall follow the procedure set forth in paragraph 7.03B;

4. Contractor shall establish the extent of the change in Contract Time in accordance with paragraph 7.03C; and

5. The daily cost of any change in Contract Time shall be limited to the items below, less funds that may have been paid pursuant to a change in the Contract Sum that contributed to this change in Contract Time:

   a. cost of nonproductive field supervision or labor extended because of the delay;
   b. cost of weekly meetings or similar indirect activities extended because of the delay;
   c. cost of temporary facilities or equipment rental extended because of the delay;
   d. cost of insurance extended because of the delay;
   e. general and administrative overhead in an amount to be agreed upon, but not to exceed 3% (three percent) of Contract Sum divided by the Contract Time for each day of the delay.

PART 8 - CLAIMS AND DISPUTE RESOLUTION

8.01 CLAIMS PROCEDURE

A. If the parties fail to reach agreement on the terms of any Change Order for Owner-directed Work as provided in section 7.01, or on the resolution of any request for an equitable adjustment in the Contract Sum as provided in section 7.02 or the Contract Time as provided in section 7.03, Contractor's only remedy shall be to file a Claim with Owner as provided in this section.

B. Contractor shall file its Claim within the earlier of: 120 (one hundred twenty) days from Owner's final offer in accordance with either paragraph 7.01E or the date of Final Acceptance.

C. The Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor may be entitled. It shall be fully substantiated and documented. At a minimum, the Claim shall contain the following information:

1. A detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of Work affected by the Claim;

2. The date on which facts arose which gave rise to the Claim

3. The name of each employee of Owner or A/E knowledgeable about the Claim;

4. The specific provisions of the Contract Documents which support the Claim;

5. The identification of any documents and the substance of any oral communications that support the Claim;

6. Copies of any identified documents, other than the Contract Documents, that support the Claim;

7. If an adjustment in the Contract Time is sought: the specific days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and

Contractor's analysis of its Progress Schedule to demonstrate the reason for the extension in Contract Time;

8. If an adjustment in the Contract Sum is sought, the exact amount sought and a breakdown of that amount into the categories set forth in, and in the detail required by, section 7.02; and

9. A statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes Owner is liable.

D. After Contractor has submitted a fully documented Claim that complies with all applicable provisions of parts 7 and 8, Owner shall respond, in writing, to Contractor as follows:

1. If the Claim amount is less than $50,000, with a decision within 60 (sixty) days from the date the Claim is received; or

2. If the Claim amount is $50,000 or more, with a decision within 60 (sixty) days from the date the Claim is received, or with notice to Contractor of the date by which it will render its decision. Owner will then respond with a written decision in such additional time.

E. To assist in the review of Contractor's Claim, Owner may visit the Project site, or request additional information, in order to fully evaluate the issues raised by the Claim. Contractor shall proceed with performance of the Work pending final resolution of any Claim. Owner's written decision as set forth above shall be final and conclusive as to all matters set forth in the Claim, unless Contractor follows the procedure set forth in section 8.02.

F. Any Claim of the Contractor against the Owner for damages, additional compensation, or additional time, shall be conclusively deemed to have been waived by the Contractor unless timely made in accordance with the requirements of this section.

8.02 ARBITRATION

A. If Contractor disagrees with Owner's decision rendered in accordance with paragraph 8.01D, Contractor shall provide Owner with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than 30 (thirty) days after the date of Owner's decision on such Claim; failure to demand arbitration within said 30-day period shall result in Owner's decision being final and binding upon Contractor and its Subcontractors.

B. Notice of the demand for arbitration shall be filed with the American Arbitration Association (AAA), with a copy provided to Owner. The parties shall negotiate or mediate under the Voluntary Construction Mediation Rules of the AAA, or mutually acceptable service, before seeking arbitration in accordance with the Construction Industry Arbitration Rules of AAA as follows:

1. Disputes involving $30,000 or less shall be conducted in accordance with the Northwest Region Expedited Commercial Arbitration Rules; or

2. Disputes over $30,000 shall be conducted in accordance with the Construction Industry Arbitration Rules of the AAA, unless the parties agree to use the expedited rules.

C. All Claims arising out of the Work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the superior court having jurisdiction thereof. No independent legal action relating to or arising from the Work shall be maintained.

D. Claims between Owner and Contractor, Contractor and its Subcontractors, Contractor and A/E, and Owner and A/E shall, upon demand by Owner, be submitted in the same arbitration or mediation.

E. If the parties resolve the Claim prior to arbitration judgment, the terms of the resolution shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of the Claim, including all claims for time and for direct, indirect, or consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity.

8.03 CLAIMS AUDITS

A. All Claims filed against Owner shall be subject to audit at any time following the filing of the Claim. Failure of Contractor, or Subcontractors of any tier, to maintain and retain sufficient records to allow Owner to verify all or a portion of the Claim or to permit Owner access to the books and records of Contractor, or Subcontractors of any tier, shall constitute a waiver of the Claim and shall bar any recovery.

B. In support of Owner audit of any Claim, Contractor shall, upon request, promptly make available to Owner the following documents:

1. Daily time sheets and supervisor's daily reports;
2. Collective bargaining agreements;
3. Insurance, welfare, and benefits records;
4. Payroll registers;
5. Earnings records;
6. Payroll tax forms;
7. Material invoices, requisitions, and delivery confirmations;
8. Material cost distribution worksheet;
9. Equipment records (list of company equipment, rates, etc.);
10. Vendors', rental agencies', Subcontractors', and agents' invoices;
11. Contracts between Contractor and each of its Subcontractors, and all lower-tier Subcontractor contracts and supplier contracts;
12. Subcontractors' and agents' payment certificates;
13. Cancelled checks (payroll and vendors);
14. Job cost report, including monthly totals;
15. Job payroll ledger;
16. Planned resource loading schedules and summaries;
17. General ledger;
18. Cash disbursements journal;
19. Financial statements for all years reflecting the operations on the Work. In addition, the Owner may require, if it deems it appropriate, additional financial statements for 3 (three) years preceding execution of the Work;
20. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others;
21. If a source other than depreciation records is used to develop costs for Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents;
22. All non-privileged documents which relate to each and every Claim together with all documents which support the amount of any adjustment in Contract Sum or Contract Time sought by each Claim;
23. Work sheets or software used to prepare the Claim establishing the cost components for items of the Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors,

all documents which establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals; and

24. Work sheets, software, and all other documents used by Contractor to prepare its bid.

C. The audit may be performed by employees of Owner or a representative of Owner. Contractor, and its Subcontractors, shall provide adequate facilities acceptable to Owner, for the audit during normal business hours. Contractor, and all Subcontractors, shall make a good faith effort to cooperate with Owner's auditors.

PART 9 - TERMINATION OF THE WORK

9.01 TERMINATION BY OWNER FOR CAUSE

A. Owner may, upon 7 (seven) days written notice to Contractor and to its surety, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for cause upon the occurrence of any one or more of the following events:

1. Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Substantial Completion of the Work within the Contract Time;
2. Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors or a receiver is appointed on account of its insolvency;
3. Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;
4. Contractor repeatedly fails to supply skilled workers or proper materials or equipment;
5. Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor;
6. Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
7. Contractor is otherwise in material breach of any provision of the Contract Documents.

B. Upon termination, Owner may at its option:

1. Take possession of the Project site and take possession of or use all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to maintain the orderly progress of, and to finish, the Work;
2. Accept assignment of subcontracts pursuant to section 5.20; and
3. Finish the Work by whatever other reasonable method it deems expedient.

C. Owner's rights and duties upon termination are subject to the prior rights and duties of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

D. When Owner terminates the Work in accordance with this section, Contractor shall take the actions set forth in paragraph 9.02B, and shall not be entitled to receive further payment until the Work is accepted.

E. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for A/E's services and expenses made necessary thereby and any other extra costs or damages incurred by Owner in completing the Work, or as a result of Contractor's actions, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner. These obligations for payment shall survive termination.

F. Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.

G. If Owner terminates Contractor for cause, and it is later determined that none of the circumstances set forth in paragraph 9.01A exist, then such termination shall be deemed a termination for convenience pursuant to section 9.02.

9.02 TERMINATION BY OWNER FOR CONVENIENCE

A. Owner may, upon written notice, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for the convenience of Owner.

B. Unless Owner directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:

1. Stop performing Work on the date and as specified in the notice of termination;

2. Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated;

3. Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated;

4. Assign to Owner all of the right, title, and interest of Contractor in all orders and subcontracts;

5. Take such action as may be necessary or as directed by Owner to preserve and protect the Work, Project site, and any other property related to this Project in the possession of Contractor in which Owner has an interest; and

6. Continue performance only to the extent not terminated.

C. If Owner terminates the Work or any portion thereof for convenience, Contractor shall be entitled to make a request for an equitable adjustment for its reasonable direct costs incurred prior to the effective date of the termination, plus a reasonable allowance for overhead and profit on Work performed prior to termination, plus the reasonable administrative costs of the termination, but shall not be entitled to any other costs or damages, whatsoever, provided however, the total sum payable upon termination shall not exceed the Contract Sum reduced by prior payments. Contractor shall be required to make its request in accordance with the provisions of part 7.

D. If Owner terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Owner.

PART 10 - MISCELLANEOUS PROVISIONS

10.01 GOVERNING LAW

The Contract Documents and the rights of the parties herein shall be governed by the laws of the state of Washington. Venue shall be in the county in which Owner's principal place of business is located, unless otherwise specified.

10.02 SUCCESSORS AND ASSIGNS

Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party shall assign the Work without written consent of the other, except that Contractor may assign the Work for security purposes, to a bank or lending institution authorized to do business in the state of Washington. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations set forth in the Contract Documents.

10.03 MEANING OF WORDS

Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or

to the code of any governmental authority, whether such reference be specific or by implication, shall be to the latest standard specification, manual, or code in effect on the date for submission of bids, except as may be otherwise specifically stated. Wherever in these Drawings and Specifications an article, device, or piece of equipment is referred to in the singular manner, such reference shall apply to as many such articles as are shown on the drawings, or required to complete the installation.

10.04 RIGHTS AND REMEDIES

No action or failure to act by Owner or A/E shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of an acquiescence in a breach therein, except as may be specifically agreed in writing.

10.05 CONTRACTOR REGISTRATION

Pursuant to RCW 39.06, Contractor shall be registered or licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27.

10.06 TIME COMPUTATIONS

When computing any period of time, the day of the event from which the period of time begins shall not be counted. The last day is counted unless it falls on a weekend or legal holiday, in which event the period runs until the end of the next day that is not a weekend or holiday. When the period of time allowed is less than 7 (seven) days, intermediate Saturdays, Sundays, and legal holidays are excluded from the computation.

10.07 RECORDS RETENTION

The wage, payroll, and cost records of Contractor, and its Subcontractors, and all records subject to audit in accordance with section 8.03, shall be retained for a period of not less than 6 (six) years after the date of Final Acceptance.

10.08 THIRD-PARTY AGREEMENTS

The Contract Documents shall not be construed to create a contractual relationship of any kind between: A/E and Contractor; Owner and any Subcontractor; or any persons other than Owner and Contractor.

10.09 ANTITRUST ASSIGNMENT

Owner and Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, Contractor hereby assigns to Owner any and all claims for such overcharges as to goods, materials, and equipment purchased in connection with the Work performed in accordance with the Contract Documents, except as to overcharges which result from antitrust violations commencing after the Contract Sum is established and which are not passed on to Owner under a Change Order. Contractor shall put a similar clause in its Subcontracts, and require a similar clause in its sub-Subcontracts, such that all claims for such overcharges on the Work are passed to Owner by Contractor.

10.10 MINORITY AND WOMEN'S BUSINESS ENTERPRISES (MWBE) PARTICIPATION

In Accordance with the legislative findings and policies set forth in Chapter 39.19 RCW the State of Washington encourages participation in all of its contracts by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this solicitation or as a subcontractor to a Bidder. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the contract documents will apply. Bidders may contact OMWBE to obtain information on certified firms for potential subcontractors/suppliers.

A. When referred to in this Contract, the terms Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) will be as defined by OMWBE, WAC 326-02-030.

B. The OMWBE has compiled a directory of certified firms. Copies of this directory may be obtained through the OMWBE. For information regarding the certification process or the certification status of a particular firm, contact:

OMWBE, 406 South Water Street, PO Box 41160, Olympia, WA 98504-1160, telephone (360) 753-9693.

C. Eligible MWBEs or M/W firms

MWBE firms utilized for this project for voluntary MWBE goals may be certified by Washington State OMWBE or self identified as minority or women owned (M/W firm).

D. MWBE Voluntary Goals

The Owner has established voluntary goals for MWBE participation for this project. The voluntary goals are set forth in the Advertisement for Bids.

E. If any part of the contract, including the supply of materials and equipment, is anticipated to be subcontracted, then prior to receipt of the first payment, Contractor shall submit, pursuant to Section 5.20 A, a list of all subcontractors/suppliers it intends to use, designate whether any of the subcontractors/suppliers are MWBE firms, indicate the anticipated dollar value of each MWBE subcontract, and provide Tax Identification Number (TIN).

F. If any part of the contract, including the supply of materials and equipment is actually subcontracted during completion of the work, then prior to final acceptance or completion of the contract or as otherwise indicated in the contract documents, the Contractor shall submit a statement of participation indicating what MWBEs were used and the dollar value of their subcontracts.

G. The provisions of this section are not intended to replace or otherwise change the requirements of RCW 39.30.060. If said statute is applicable to this contract then the failure to comply with RCW 39.30.060 will still render a bid non-responsive.

H. The Contractor shall maintain, for at least three years after completion of this contract, relevant records and information necessary to document the level of utilization of MWBEs and other businesses as subcontractors and suppliers in this contract, as well as any efforts the Contractor makes to increase the participation of MWBEs as listed in section I below. The Contractor shall also maintain, for at least three years after completion of this contract, a record of all quotes, bids, estimates, or proposals submitted to the Contractor by all businesses seeking to participate as subcontractors or suppliers in this contract. The state shall have the right to inspect and copy such records. If this contract involves federal funds, Contractor shall comply with all record keeping requirements set forth in any federal rules, regulations, or statutes included or referenced in the contract documents.

I. Bidders should advertise opportunities for subcontractors or suppliers in a manner reasonably designed to provide MWBEs capable of performing the work with timely notice of such opportunities, and all advertisements shall include a provision encouraging participation by MWBE firms. Advertising may be done through general advertisements (e.g. newspapers, journals, etc.) or by soliciting bids directly from MWBEs. Bidders shall provide MWBEs that express interest with adequate and timely information about plans, specifications, and requirements of the contract.

J. Contractors shall not create barriers to open and fair opportunities for all businesses including MWBEs to participate in all State contracts and to obtain or compete for contracts and subcontracts as sources of supplies, equipment, construction and services.

K. Any violation of the mandatory requirements of this part of the contract shall be a material breach of contract for which the Contractor may be subject to a requirement of specific performance, or damages and sanctions provided by contract, by RCW 39.19.090, or by other applicable laws.

10.11 MINIMUM LEVELS OF APPRENTICESHIP PARTICIPATION

In accordance with Executive Order 00-01 the State of Washington may require apprenticeship participation for projects of a certain cost. The bid advertisement and Bid Proposal form shall establish the minimum percentage of apprentice labor hours as compared to the total labor hours.

A. Voluntary workforce diversity goals have been established for the apprentice hours. These goals are that one-fifth (1/5) of the apprentice hours be performed by minorities, and one-sixth (1/6) of the apprentice hours be performed by women.

B. Apprentice participation, under this contract, may be counted towards the required percentage (%) only if the apprentices are from an apprenticeship program registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-04).

C. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 by phone at (360) 902-5320, and e-mail at thum235@lni.wa.gov, to obtain information on available apprenticeship programs.

D. For each project that has apprentice requirements, the contractor shall submit a "Statement of Apprentice/Journeyman Participation" on forms provided by the Department of General Administration, with every request for progress payment. The Contractor shall submit consolidated and cumulative data collected by the Contractor and collected from all subcontractors by the Contractor. The data to be collected and submitted includes the following:

1. Contractor name and address
2. Contract number
3. Project name
4. Contract value
5. Reporting period "Notice to Proceed" through "Invoicing Date"
6. Craft/trade/occupation of all (contractor and subcontractor trades working on the project) apprentices and journeymen
7. Total number of apprentices and total number of hours worked by apprentices, both categorized by gender and ethnicity
8. Total number of journeymen and total number of hours worked by journeymen, both categorized by gender and ethnicity
9. Cumulative combined total of apprentice and journeymen labor hours.
10. Total percentage of apprentice hours worked
11. No changes to the required percentage (%) of apprentice participation shall be allowed without written approval of the Owner. In any request for the change the Contractor shall clearly demonstrate a good faith effort to comply with the requirements for apprentice participation.
12. Any substantive violation of the mandatory requirements of this part of the contract may be a material breach of the contract by the Contractor. The Owner may withhold payment pursuant to Part 6.05, stop the work for cause pursuant to Part 3.04, and terminate the contract for cause pursuant to Part 9.01.

10.12 HEADINGS AND CAPTIONS

Headings for convenience only: All headings and captions used in these General Conditions are only for convenience of reference and shall not be used in any way in connection with the meaning, effect, interpretation, construction, or enforcement of the General Conditions, and do not define the limit or describe the scope or intent of any provision of these General Conditions.

10.13 SUBCONTRACTOR PAYMENTS REPORTING REQUIREMENTS

This Contract is subject to compliance tracking using the State's business diversity management system, Access Equity (B2Gnow). Access Equity is web-based and can be accessed at the Office of Minority and Women's Business Enterprises at https://omwbe.diversitycompliance.com/. The Contractor and all Subcontractors shall report and confirm receipt of payments made to the Contractor and each Subcontractor through Access Equity.

The Contractor may contact State Parks Contracts and Grants at contracts@parks.wa.gov for technical assistance in using the Access Equity system. User guides and documentation related to Contractor and Subcontractor access to and use of Access Equity are available online at https://omwbe.wa.gov/access-equity-help-center. The Public Owner reserves the right to withhold payments from the Contractor for non-compliance with this section. For purposes of this section, Subcontractor means any subcontractor working on the Contract, at any tier and regardless of status as certified WMBE or Non-WMBE.
The Contractor shall:

a. Register and enter all required Subcontractor information into Access Equity no later than 15 days after the Public Owner creates the Contract Record.

b. Complete the required user training (two (2) one-hour online sessions) no later than 20 days after the Public Owner creates the Contract Record.

c. Report the amount and date of all payments (i) received from the Public Owner, and (ii) paid to Subcontractors, no later than 30 days, issuance of each payment made by the Public Owner to the Contractor, unless otherwise specified in writing by the Public Owner, except that the Contractor shall mark as "Final" and report the final Subcontractor payments) into Access Equity no later than thirty (30) days after the final payment is due the Subcontractor(s) under the Contract, with all payment information entered no later than sixty (60) days after end of fiscal year.

d. Monitor contract payments and respond promptly to any requests or instructions from the Public Owner or system-generated messages to check or provide information in Access Equity.

e. Coordinate with Subcontractors, or Public Owner when necessary, to resolve promptly any discrepancies between reported and received payments.

f. Require each Subcontractor to: (i) register in Access Equity and complete the required user training; (ii) verify the amount and date of receipt of each payment from the Contractor or a higher tier Subcontractor, if applicable, through Access Equity; (iii) report payments made to any lower tier Subcontractors, if any, in the same manner as specified herein; (iv) respond promptly to any requests or instructions from the Contractor or system-generated messages to check or provide information in Access Equity; and (v) coordinate with Contractor, or Public Owner when necessary, to resolve promptly any discrepancies between reported and received payments.

END OF CONDITIONS

/ / / / /

Approved as to Form:
William Van Hook /s/
Asst. Attorney General
02/2007
08/2010 GA Updates – jrc
09/2010 to AAG Schwartz

PREVAILING WAGES

Instruction for Prevailing Wage Rates

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

https://secure.lni.wa.gov/wagelookup/

The prevailing wages for this project are those that are in effect on the date that the bids are due.

Contractor to Pay Prevailing Wages

The Contractor shall pay the prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of the Department of Labor and Industries. The schedule of prevailing wage rates for the locality or localities of the Work is determined by the Industrial Statistician of the Department of Labor and Industries. It is the Contractor's responsibility to verify the applicable prevailing wage rate.

A copy of the applicable wage rates is available upon request. Please request a copy by email at: contracts@parks.wa.gov.

SECTION 010000 – GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. This project includes the renovation of the entrance road and construction of a Welcome Center. Work includes but not limited to excavation, grading, paving, concrete, framing, electrical, plumbing, sewer lift station, landscaping and metal roofing.

1.2 TIME FOR COMPLETION OF PROJECT

A. Substantially complete project in accordance with the drawings and specifications within 120 calendar days from date on Notice to Proceed letter. Final completion in accordance with Contract Documents within 30 calendar days from substantial completion date.

1.3 HOURS OF WORK

A. Work hours are between 8:00 a.m. and & 5:00 p.m. Monday through Friday, excluding national holidays.

1.4 LIQUIDATED DAMAGES

A. If Contractor fails to complete Contract within stipulated time, an assessment of $200.00 per day will be made against Contractor for each additional day required to complete contract, unless an extension of time was granted through Change Order. This assessment is to cover Commission's liquidated damages and is not to be construed as a penalty.

B. Contract authorizes the Washington State Parks and Recreation Commission to deduct liquidated damages from money due at completion of contract.

1.5 PRE-CONSTRUCTION CONFERENCE

A. Following notification of award to Contractor, the date for an on-site pre-construction conference will be set. Do not commence Work prior to conference or until written clearance has been obtained from Project Representative.

B. Furnish Project Representative with following:

1. Complete list of sub-contractors, including business address, telephone numbers, items of Work, and registration numbers. List is to be updated during contract life.
2. Name of Contractor's superintendent who will be on job at all times.
3. A progress schedule in accordance with General Conditions.

4. A detailed cost breakdown for lump sum bid items. Furnish a fair evaluation of actual cost of each items of Work listed. This will be used in processing Contractor's requests for partial payment. Submittal of breakdown does not affect the Contract terms.

C. Project Representative will supply a list of hazardous products that could be encountered on Project. Appropriate Safety Data Sheet (SDS) will be on file at park.

1.6 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT)

A. **None** of WSDOT General Requirements, measurement or payment provisions apply.

1.7 AS-BUILT DRAWINGS

A. Keep a clean set of full sized drawings at job site to use to identify changes.

1.8 PROJECT CONDITIONS

A. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Project Representative and Owner. Owner will remove hazardous materials under a separate contract.

1.9 PROJECT SIGN

A. Provide following temporary sign. Sign location is shown on drawings or determined by Project Representative. Upon Project completion, remove sign and restore area to original condition.

1.10 PROJECT SIGN LETTERING

TITLE OF PROJECT:	WELCOME CENTER AND ENTRANCE ROAD
NAME OF FACILITY:	ILLAHEE STATE PARK
NAME OF CONTRACTOR:	(Place Contractor’s Name here)
ADDRESS OF CONTRACTOR:	(Place Contractor’s Address here)
FUNDING TITLE NUMBER 1:	STATE BUILDING CONSTRUCTION ACCOUNT
FUNDING TITLE NUMBER 2	LEAVE BLANK FOR THIS PROJECT

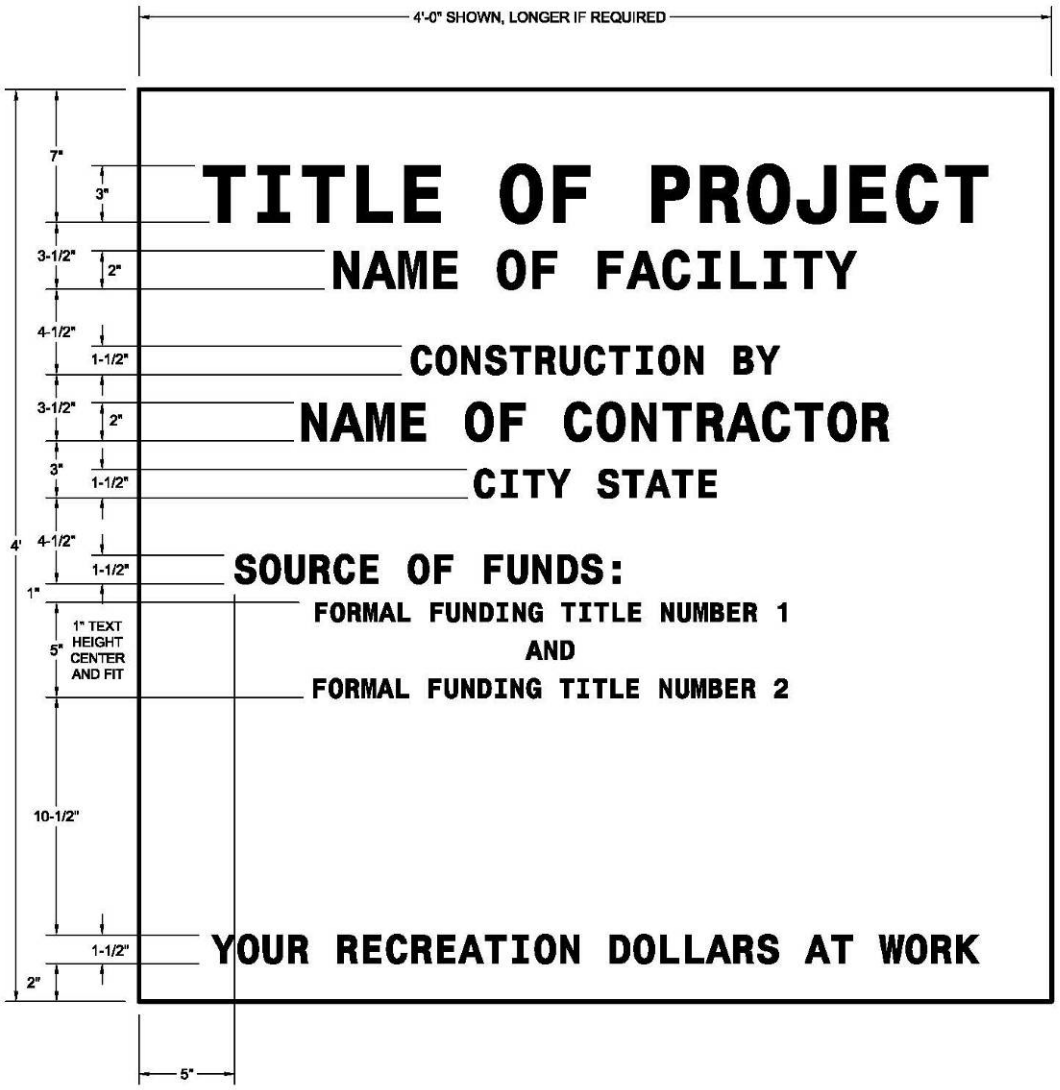
1.11 PARTNERSHIP IN THE CONTRACT

A. As partners in this contract, both Contractor and Commission recognize the value of a successful Project. Both parties recognize, besides the tangible benefits to Contractor and the Commission, the citizens of Washington State and visitors to Washington State Parks will benefit immensely from the successful completion of a quality Project.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

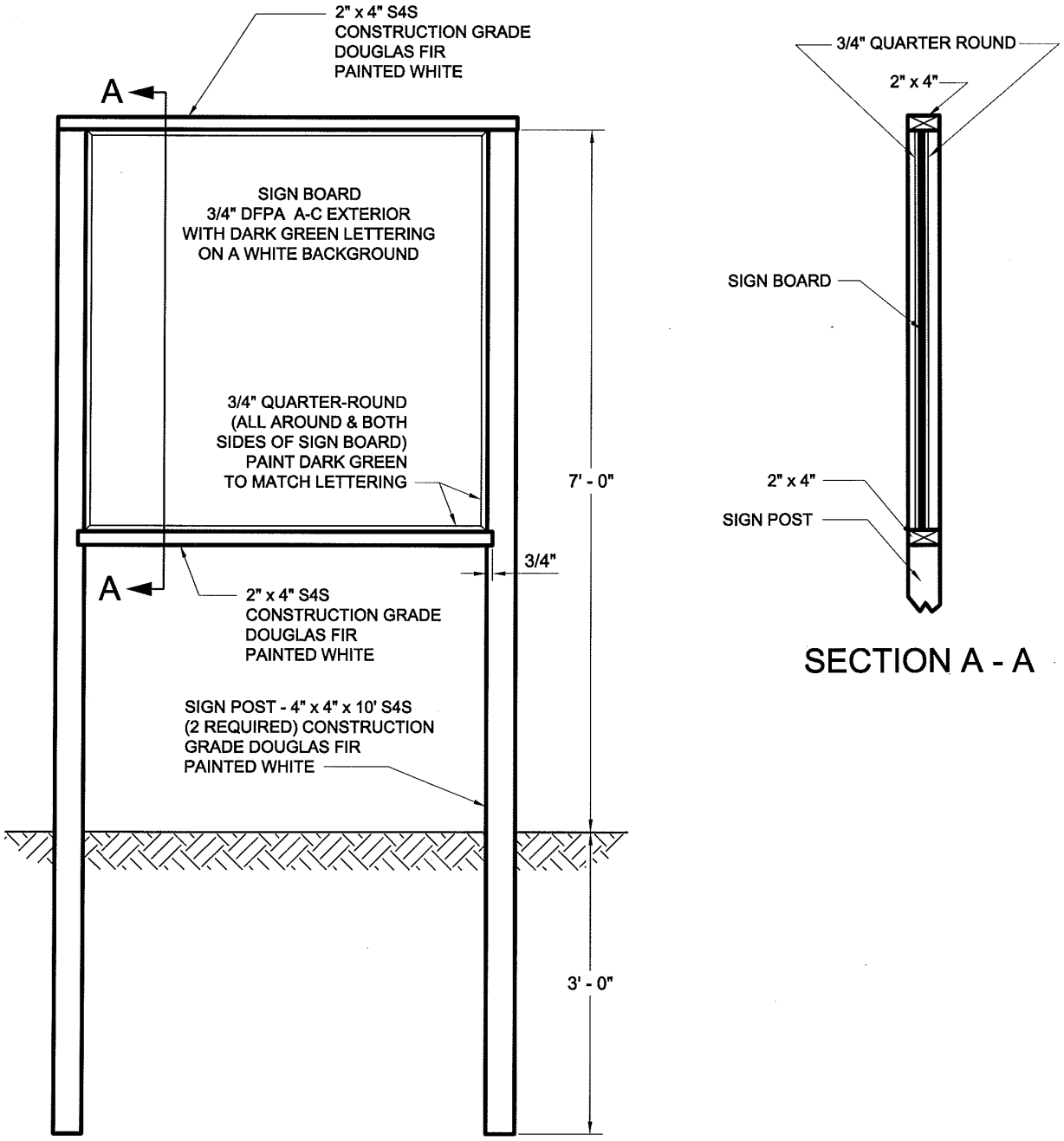
PROJECT SIGN DETAIL



LAY OUT SIGN TO FIT ON A PORTION OF ONE (1) SHEET OF PLYWOOD. IF PLYWOOD IS THE FINAL SURFACE, PAINT IT WITH TWO (2) OR MORE COATS OF WHITE PAINT TO FORM A SMOOTH, NONABSORBENT SURFACE. PROVIDE DARK GREEN WELL FORMED LETTERS, EVENLY SPACED, NEAT IN APPEARANCE, AND ALIGNED AS SHOWN ABOVE.

WASHINGTON STATE PARKS
PROJECT SIGN DETAIL

PROJECT SIGN DETAIL



PLAN

END OF SECTION

SECTION 013300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. For information on submittals see General Conditions 4.03

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION – (NOT USED)

END OF SECTION

SECTION 013501 – INADVERTENT DISCOVERIES OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

PART 1 - GENERAL

1.1 PROJECT SPECIFIC REQUIREMENTS

A. No cultural resource sites are known to exist within Work area. However, there always exist the potential for unanticipated discoveries during excavation work.

1.2 EMERGENCY CONTACTS

WSPRC Archaeologists

Jennifer Wilson, Archaeology Program Manager	(360) 787-6511 (cell)
Email: jennifer.wilson@parks.wa.gov	(360) 902-8637 (office)
Shari Silverman, Archaeologist SW Region	(435) 260-9894 (cell)
Email: shari.silverman@parks.wa.gov	(360) 902- 8640 (office)
Kayley Bass, Archaeologist SW Region	(360) 701-1277 (cell)
Emails: kayley.bass@parks.wa.gov	
Sarah DuBois, Archaeologist Eastern Region	(360) 972-5884 (cell)
Email: sarah.dubois@parks.wa.gov	(509) 665-4336 (office)
Ayla Aymond, Archaeologist Eastern Region	(509) 743-8251 (cell)
Email: ayla.aymond@parks.wa.gov	
Sean Stcherbinine, Archaeologist NW Region	(360) 770-1419 (cell)
Email: sean.stcherbinine@parks.wa.gov	
Laura Syvertson, Archaeologist NW Region	(360) 770-0444 (cell)
Email: laura.syvertson@parks.wa.gov	
Maurice Major, Stewardship Archaeologist	(360) 701-6218 (cell)
Email: maurice.major@parks.wa.gov	(360) 902-8503 (office)

WSPRC Curator of Collections/NAGPRA Specialist
Alicia L. Woods, Statewide Curator of Collections & NAGPRA Specialist (360) 586-0206 (office)

State Physical Anthropologist
Guy Tasa, PhD, Dept. of Archaeology and Historic Preservation (360) 790-1633 (cell)

Assistant State Physical Anthropologist
Julie Berger, Dept. of Archaeology and Historic Preservation (360) 890-2633 (cell)

County Coroner/Examiner
Kitsap County Medical Examiner's Office 360.731.6843 (office)
coroner@kitsap.gov

Area Manager
Kinnan Murray (360) 460-3072 (cell)
(360) 478-6460 (office)

Region Manager
Darrel Hopkins (360) 725-9781 (office)
(360) 791-0774 (cell)

Land Owner:

Washington State Parks and Recreation Commission

Local Law Enforcement (if can't get ahold of any park staff)
Seth Mason-Todd, Kitsap Memorial State Park Ranger (360) 340-8332 (cell)
(360) 779-3205 (office)

1.3 INADVERTENT DISCOVERIES OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

A. Many of Washington's most important heritage sites reside on lands owned or managed by the Washington State Parks and Recreation Commission (WSPRC). Nearly all Washington State Parks contain one or more important historic buildings, structures, or archaeological sites. For this reason, archaeological surveys and historic building inventories are ordinarily commissioned as a part of background analysis and information gathering for park developments and undertakings. Results of these surveys are used during project planning to ensure every effort is made to avoid impacts to cultural resources. Yet, despite these efforts, there **always** remains some potential for unanticipated discoveries while working in Washington State Parks.

B. All unanticipated discoveries, both cultural resources and human skeletal remains, are subject to all applicable federal and state statues, regulations, and executive orders. For these reasons, the Inadvertent Discovery Plan (IDP) provides useful guidance and instructions for circumstances when cultural resources or human skeletal remains are found. Please carefully read these instructions. If you have any questions, please contact the appropriate WSPRC Area Manager or the WSPRC archaeologist assigned to the undertaking. It is also strongly recommended that anyone conducting ground-disturbing activities watch the training video produced by Washington State Dept of Ecology: Inadvertent Discovery of Cultural Resources or Human Remains: Training for Field Staff. This IDP for cultural resources and human skeletal remains is based on **RCW 27.53**, **RCW 68.50.645,** **RCW 27.44.055**, and **RCW 68.60.055** and **recommended language** from the Department of Archaeology and Historic Preservation (DAHP).

1.4 INADVERDENT DISCOVERY PLAN FOR CULTURAL RESOURCES

A. If cultural resources are found during a project, activity in the immediate area of the find should be discontinued (**stop**), the area secured (**protect**), and the WSPRC archaeologists notified to assess the find (**notify**). ***When in doubt, assume the material is a cultural resource and implement the IDP outlined below.***

B. **Recognizing Cultural Resources-***Types of Historic/Prehistoric Artifacts and/or Activity Areas That May Be Found*

1. Artifacts- Both historic and prehistoric artifacts may be found exposed in backhoe trenches or back dirt piles.

a) Prehistoric artifacts may range from finished tools such as stone pestles, arrowheads/projectile points, shell beads, or polished bone tools to small pieces or "flakes" or "chips" of exotic stone such as chert, jasper, or obsidian.
b) Historic artifacts may include older (more than 50 years) nails, plates/ceramics, bottles, cans, coins, glass insulators, or bricks.
c) Old abandoned industrial materials from farming, logging, railways, lighthouses, and military installations.

2. Activity Area/Cultural Features- While excavating trench lines look for evidence of buried activity areas/cultural features such as old campfire hearths or buried artifacts.

a) An area of charcoal or very dark stained soil with artifacts or burned rocks may be a fire hearth.
b) A concentration of shell with or without artifacts may be shell midden deposits.
c) Modified or stripped trees, often cedar or aspen, or other modified natural features, such as rock drawings or carvings

3. Historic building foundation/structural remains- During excavation, buried historic structures (e.g., privies, building foundations) that are more than 50 years old may be found.
4. Bone- Complete or broken pieces of bones may be discovered exposed in trench walls or in back dirt piles. Bone of recent age is usually transparent or white in color. Older bone is usually found in various shades of brown. Burned bone is usually black or, if heavily burned, bluish-white.

C. STEPS TO TAKE IF A CULTURAL RESOURCE IS FOUND DURING CONSTRUCTION

1. **Stop** if a cultural resource(s) is observed or suspected, all work within the immediate area of the discovery must stop.
2. **Protect** the area from further disturbance. Do not touch, move, or further disturb the exposed materials/artifacts. Create a protected area with temporary fencing, flagging, stakes, or other clear markings that is large enough (30 feet or larger) to protect the discovery location area. The WSPRC archaeologist can help determine the size of the protected area. Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site.
3. **Notify** the WSPRC archaeologist. If the area needs to be secured, notify the Park Ranger or Park staff as well.
4. If requested by the WSPRC archaeologist, take photographs with a scale (e.g., pen, coin, etc.) and collect geospatial information of the discovery site to document the initial finds.

D. WHAT NOT TO DO IF A CULTURAL RESOURCE IS FOUND DURING CONSTRUCTION

1. Do not remove any artifacts from the site of the discovery.
2. Do not dig out objects protruding from any trench walls as this may cause further damage to artifacts and/or destroy important contextual information.
3. Do not share any information about the find, including on social media, except as necessary to implement the IDP.

E. WHAT HAPPENS NEXT?

1. The find will be assessed by a professional archaeologist (may be a WSPRC archaeologist or an archaeology consultant).

a) If the find is not a cultural resource, construction work may resume.
b) If the find is a cultural resource, the WSPRC archaeologist will contact the DAHP and affected Tribes, as appropriate, to develop a suitable treatment plan for the resource.

2. Construction work may resume in the protected area after the WSPRC archaeologist assigned to the undertaking has determined that the find has been adequately investigated and, if necessary, a treatment plan and monitor are in place to protect any remaining archaeological deposits.

1.5 INADVERDENT DISCOVERY PLAN FOR HUMAN SKELETAL REMAINS

A. Native American burials and historic grave sites are uncommon features on Washington State Park lands. These remains, as well as any associated artifacts or funerary objects, are protected under state law and, if the park is a federal lease, applicable federal law. If you discover human remains (or bones that you believe may be human remains) during construction, please follow these important instructions. It is imperative that reporting and treatment of any human remains found during construction or any ground-disturbing activities are treated with utmost dignity and respect.

B. Steps to Take If Human Skeletal Remains are Found During Construction

1. **Stop** if human skeletal remains observed or suspected, all work within the immediate area of the discovery must stop.
2. **Protect** the area from further disturbance. Do not touch, move, or further disturb the remains. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and shield them from being photographed. Create a protected area with temporary fencing, flagging, stakes, or other clear markings that is large enough (30 feet or larger) to protect the discovery location area. The WSPRC archaeologist can help determine the size of the protected area. Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site.
3. **Notify** law enforcement and the appropriate county medical examiner/coroner as soon as possible. If you are unsure if the remains are human, the physical anthropologist at DAHP may be called. Also notify the Park Ranger, the WSPRC archaeologist, and the WSPRC Curator of Collections/NAGRPA Specialist of the discovery of the remains.
4. If requested by law enforcement, the county coroner/examiner, the DAHP physical anthropologist, or the WSPRC archaeologist, take photographs with a scale (e.g., pen, coin, etc.) and geospatial information of the discovery site to document the initial finds.

C. What Not to Do If Human Skeletal Remains are Found During Construction

1. Do not pick up or remove anything.
2. Do not take any photographs of the remains unless instructed to do so by law enforcement, the county coroner/examiner, the DAHP physical anthropologist, or the WSPRC archaeologist. If pictures are requested, be prepared to photograph them with a scale (e.g., pen, coin, etc.) and collect geospatial information of the remains.
3. Do not call 911 unless you cannot reach law enforcement or the coroner/examiner by other means.
4. Do not share any information about the find, including on social media, except as necessary to implement the IDP.

D. **What Happens Next?**

1. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and decide whether those remains are forensic (crime-related) or non-forensic.

   a) If forensic, the county medical examiner/coroner will retain jurisdiction over the remains.
   b) If non-forensic, the county medical examiner/coroner will report that finding to the DAHP who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected Tribes of the remains. The State Physical Anthropologist will decide whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected Tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

      Note: The WSPRC archaeologist assigned to the undertaking will be coordinating and consulting with the DAHP, affected Tribes, and other groups as necessary. Additionally, WSPRC's Curator of Collections/NAGPRA Specialist should be included on all written and/or verbal correspondence until the remains have been officially transferred from WSPRC's possession to an outside authority. Until the remains are transferred off of WSPRC's property, it is the responsibility of the Curator of Collections/NAGPRA Specialist to document and track the information regarding all human remains and associated funerary objects (including all material from excavation areas/units from which the human remains were removed).

2. Construction work may resume in the protected area after the WSPRC archaeologist assigned to the undertaking has determined that the find has been adequately investigated and, if necessary, a treatment plan and monitor are in place.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.

2. Requirements for Contractor to provide quality-assurance and -control services required by Project Representative, Owner, or Authorities Having Jurisdiction are not limited by provisions of this Section.

C. Related Requirements:

1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.2 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Project Representative.

C. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to Authorities Having Jurisdiction, to establish product performance and compliance with specified requirements.

D. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.

E. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

F. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

G. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

H. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of three previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.3 CONFLICTING REQUIREMENTS

A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Project Representative for a decision before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Project Representative for a decision before proceeding.

1.4 MATERIAL INSPECTION CONTROL

A. For bulk items, furnish quantity sheets (load receipts) to account for each load delivered to the jobsite. Deliver quantity sheets to the Inspector on job at time of delivery. In the event the Inspector is not on job, deliver quantity sheets on a daily basis to place designated by Project Representative.

1.5 QUANTITY SHEETS/WEIGHT TICKETS

A. For bulk items, supply quantity sheets (load receipts) to account for each load delivered to the jobsite. Deliver quantity sheets to Inspector on job at delivery time. If Inspector is not on job, deliver quantity sheets on a daily basis to place designated by Project Representative.

B. No payment shall be made for materials delivered for which quantity tickets have not been turned into Inspector or delivered to designated place at end of working day. Backdated tickets are not acceptable as a basis for payment, except at Project Representative's discretion.

C. If bid item for material to be delivered to jobsite is stated in TONS, only weight slips from approved scale are acceptable for payment purposes, unless approved in advance by Project Representative.

D. No payment for materials will be made until proper accounting has been made. Final quantity records are approved by Project Representative, with payment at Project Representative's discretion.

1.6 INFORMATIONAL SUBMITTALS

A. Contractor's Statement of Responsibility: When required by Authorities Having Jurisdiction, submit copy of written statement of responsibility sent to Authorities Having Jurisdiction before starting work on the following systems:

1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Engineer.
2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Engineer.

B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.7 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Field Reports: Prepare written information documenting tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.

3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
5. Other required items indicated in individual Specification Sections.

C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of Authorities Having Jurisdiction shall supersede requirements for specialists.

G. Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Project Representative**,** and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.9 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor**,** and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.

a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Manufacturer's Field Services: Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of the Work, and submittal of written reports.

D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

E. Testing Agency Responsibilities: Cooperate with Project Representative**,** Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Project Representative**,** Construction Manager**,** and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.

4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.10 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner will engage a qualified testing agency or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, as indicated in Statement of Special Inspections attached to this Section, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
2. Notifying Project Representative**,** Construction Manager**,** and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Project Representative**,** through Construction Manager**,** with copy to Contractor and to Authorities Having Jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Project Representative.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Project Representative's, Commissioning Authority's, and Construction Manager's reference during normal working hours.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 014100 - REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.1 PERMITS, CODES AND REGULATIONS

A. The following permits have been applied for (or are on file) and incorporated into the contract:

1. Kitsap County Building Permit
2. SEPA
3. Governor's Executive Order 21-02 (Archaeology)

B. Conform with the requirements of listed permits and additional or other applicable permits, codes, and regulations as may govern Work.

C. Obtain and pay fees for licenses, permits, inspections, and approvals required by laws, ordinances, and rules of appropriate governing or approving agencies necessary for proper completion of Work (other than those listed under item 1.1A. above and Special Inspections called for by the International Building Code).

D. Conform with current applicable codes, regulations and standards, which is the minimum standard of quality for material and workmanship. Provide labor, materials, and equipment necessary for compliance with code requirements or interpretations, although not specifically detailed in the Drawings or specifications. Be familiar with applicable codes and standards prior to bidding.

E. Process through Project Representative, requests to extend, modify, revise, or renew any of the permits (listed in 1.1A above). Furnish requests in writing and include a narrative description and adequate Drawings to clearly describe and depict proposed action. Do not contact regulatory agency with requests for permit extensions, modifications, revisions, or renewals without the prior written consent of Project Representative.

1.2 VARIATIONS WITH CODES, REGULATIONS AND STANDARDS

A. Nothing in the drawings and specifications permits Work not conforming to codes, permits or regulations. Promptly submit written notice to Project Representative of observed variations or discrepancies between the Contract documents and governing codes and regulations.

B. Appropriate modifications to the Contract documents will be made by Change Order to incorporate changes to Work resulting from code and/or regulatory requirements. Contractor assumes responsibility for Work contrary to such requirements if Work proceeds without notice.

C. Contractor is not relieved from complying with requirements of Contract documents which may exceed, but not conflict with requirements of governing codes.

1.3 COORDINATION WITH REGULATORY AGENCIES

A. Coordinate Work with appropriate governing or regulating authorities and agencies.

B. Provide advance notification to proper officials of Project schedule and schedule revisions throughout Project duration, in order to allow proper scheduling of inspection visits at proper stages of Work completion.

C. Regulation coordination is in addition to inspections conducted by Project Representative. Notify Project Representative of scheduled inspections involving outside regulating officials, to allow Project Representative to be present for inspections.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 014200 – REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

A. General: Basic Contract definitions are included in the General Conditions of the Contract.

B. "Approved": When used to convey Project Representative's action on Contractor's submittals, applications, and requests, "approved" is limited to Project Representative's duties and responsibilities as stated in the General Conditions of the Contract.

C. "Directed": A command or instruction by Project Representative. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."

D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."

E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

H. "Provide": Furnish and install, complete and ready for the intended use.

I. “Project Engineer”, “Project Architect”, “Engineer”, and “Architect” are interchangeable terms.

J. Project Representative and Owners Representative are interchangeable terms.

K. “As-built Drawings”: Drawings done by the Contractor in the field showing changes to the Work.

L. “Record Drawings”: Drawings prepared based on the information on the As-built Drawings.

1.2 GENERAL

A. Applicable standards of the construction industry have the same force and effect (and are made a part of the Contract Documents by reference) as if directly copied or bound herein.

1.3 PUBLICATION DATES

A. Where compliance with an industry standard is required, comply with the standard in effect on Bid Date.

1.4 ABBREVIATIONS AND NAMES

A. The following acronyms or abbreviations, referenced in the Contract documents, are defined to mean the associated name. Applicable standards include, but are not limited to the following:

1.	AASHTO	American Association of State Highway & Transportation Officials
2.	ACI	American Concrete Institute
3.	AGA	American Gas Association
4.	AI	Asphalt Institute
5.	AIA	American Institute of Architects (The)
6.	AISC	American Institute of Steel Construction, Inc.
7.	AISI	American Iron and Steel Institute
8.	AITC	American Institute of Timber Construction
9.	ANSI	American National Standards Institute
10.	APA	Engineered Wood Association (The)
11.	APWA	American Public Works Association
12.	ASME	American Society of Mechanical Engineers
13.	ASTM	American Society for Testing and Materials International
14.	AWPA	American Wood Protection Association
15.	AWS	American Welding Society
16.	AWWA	American Water Works Association
17.	CRSI	Concrete Reinforcing Steel Institute
18.	EPA	Environmental Protection Agency
19.	HPVA	Hardwood Plywood and Veneer Association
20.	IBC	International Building Code
21.	IEEE	Institute of Electrical & Electronics Engineers, Inc. (The)
22.	IES	Illuminating Engineering Society of North America
23.	LPI	Lighting Protection Institute
24.	MCAA	Mechanical Contractors Association of America, Inc.
25.	NIST	National Institute of Standards and Technology
26.	NCMA	National Concrete Masonry Association
27.	NEC	National Electrical Code
28.	NECA	National Electrical Contractors Association, Inc.
29.	NFPA	National Fire Protection Association
30.	NHLA	National Hardwood Lumber Association
31.	NSF	National Sanitation Foundation International
32.	OSHA	Occupational Safety & Health Administration
33.	PCA	Portland Cement Association, (The)
34.	SEPA	State Environmental Policy Act
35.	UL	Underwriters Laboratories, Inc.
36.	UPC	Uniform Plumbing Code
37.	WCLIB	West Coast Lumber Inspection Bureau (Grading Rules)
38.	WRI	Wire Reinforcement Institute
39.	WSDOE or ECY	Washington State Department of Ecology
40.	WSDOH or DOH	Washington State Department of Health

41. WSDOT Washington State Department of Transportation
42. WSPRC Washington State Parks and Recreation Commission
43. WWPA Western Wood Products Association (Grading Rules)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 PROTECTION OF PROPERTY AND EXISTING FACILITIES

A. Provide protections necessary to prevent damage to park property and facilities.

B. Only rubber-tired equipment is permitted to operate on paved park roads.

C. Protect existing trees and other vegetation indicated to remain in place against cutting, breaking or skinning of roots, skinning and bruising of bark, or smothering of trees by stockpiling materials within dripline. Provide necessary temporary guards to protect trees and vegetation to remain in place.

D. Make every effort to minimize damage and cutting major tree roots during excavation operations. Provide protection for larger tree roots exposed or cut during excavation operations.

1.2 ENVIRONMENTAL PROTECTIONS

A. Scope:

1. Provide labor, materials, equipment and perform Work required for protection of environment during and as a result of construction operations under contract.

B. Applicable Regulations:

1. Comply with applicable federal, state and local laws and regulations concerning environmental pollution control and abatement, and specific requirements elsewhere in specifications and drawings to prevent and provide for control of environmental pollution.

C. Sub-contractors:

1. Contractor: Responsible for compliance with provisions of this Section by subcontractors.

D. Protection of Land Resources:

1. Give special attention to the effect of Contractor’s operations upon surroundings. Take special care to maintain natural surroundings undamaged and conduct Work in compliance with following requirements:

a. When Work is completed, remove storage and all other Contractor buildings and facilities, and sites restored to a neat and presentable condition appropriate to surrounding landscape, unless otherwise specified. Remove debris resulting from Contractor's operation.
b. Store petroleum products, industrial chemicals and similar toxic or volatile materials in durable containers approved by the Authority Having Jurisdiction and located in areas where accidental spillage will not enter water. Store substantial quantities of materials in an area surrounded by containment dikes of sufficient capacity to contain an aggregate capacity of tanks.

E. Protection and Restoration of Property:

1. Preserve public and private property, monuments, power and telephone lines, other utilities, prevention of damage to natural environment, etc., insofar as they may be endangered by Work.
2. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in execution of Work, or in consequence of non-execution of Contractor, restore, or have restored at Contractor's expense, such property to a condition similar and equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or make good damage or injury in some other manner acceptable to Project Representative.

F. Protection of Water Resources:

1. Perform Work not to create conditions injurious to fish or to their habitat, or which would make water unsuitable for private, municipal, or industrial use.
2. Take special measures to prevent chemicals, fuels, oils, grease, bituminous materials, waste washings, herbicides, insecticides, lime, wet concrete, cement, silt or organic or other deleterious material from entering waterways.
3. Dispose~~d~~ of offsite, in a lawful manner conforming to applicable local, state and federal laws wastes, effluents, trash, garbage, oil, grease, chemicals, cement, bitumen, etc., petroleum, and chemical products or wastes containing such products. Furnish Owner with documentation showing compliance with this requirement.
4. Conform to applicable local, state and federal laws for disposal of effluents. Dispose of waters used to wash down equipment in a manner to prevent their entry into a waterway. If waste material is dumped in unauthorized areas, remove material and restore area to condition of adjacent, undisturbed area. If necessary, excavate contaminated ground and disposed of as directed by Project Representative and replace with suitable compacted fill material with surface restored to original condition.

G. Dust Control:

1. Dust control is required on roads used by Contractor. Maintain excavations, embankments, stockpiles, roads, plant sites, waste areas, borrow areas and other Work areas within or without the Project boundaries free from dust which would cause a hazard or nuisance to others. Provide approved, temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment or equal methods to control dust. If sprinkling is used, sprinkling must be repeated at intervals to keep disturbed areas at least damp.

H. Temporary Water Pollution/Erosion Controls:

1. Provide for prevention, control and abatement of soil erosion and water pollution within the limits of Project, to prevent and/or minimize damage to adjacent bodies of water and Work itself.
2. Coordinate temporary soil erosion/water pollution control measures with permanent drainage and erosion control Work to ensure effective and continuous controls are maintained throughout Project life.
3. Develop a written spill prevention and response plan for construction activities adjacent to/and over any surface waters and/or wetlands. "Adjacent" means within 150' as measured on a horizontal plane. Plan addresses:

    a. Narrative description of the proposed construction methods, materials, and equipment to be used for Work
    b. Assessment and listing of hazardous materials and/or potential contaminants that could be released during execution of Work
    c. SDS sheets with cleanup instructions for potential contaminants
    d. Spill response/cleanup materials and instructions for use
    e. Procedures and precautions to prevent spills
    f. Spill response training for on-site personnel, including the location of the containment and cleanup materials at site
    g. Emergency notification in case of a spill or release. The Park Manager and Project Representative must be included on the list of notified.

4. Comply with applicable codes and ordinances for spill prevention and response plan and submit a copy to Project Representative before commencing Work adjacent to or over any waters and/or wetlands.

I. EMERGENCY SPILL RESPONSE NOTIFICATION

1. Under state law, Ecology must be notified when any amount of regulated waste or hazardous material that poses an imminent threat to life, health, or the environment is released to the air, land, or water, or whenever oil is spilled on land or to waters of the state. The spiller is always responsible for reporting a spill. Failure to report a spill in a timely manner may result in enforcement actions. If you are not responsible for a spill, making the initial notification does not make you liable. However, please consult with Ecology's response team before attempting any type of response or cleanup. Also notify Park Manager and Project Representative.

2. If oil or hazardous materials are spilled to state waters, the spiller must notify both federal and state spill response agencies. The federal agency is the National Response Center at 1-800-424-8802. For state notification, call the Washington Emergency Management Division (EMD) at 1-800-258-5990 or 1-800-OILS-911 AND the appropriate Ecology regional office for your county (see numbers below). An Ecology spill responder will normally call reporting party back to gather more information. The agency will then determine its response actions. Also notify Park Manager and Project Representative.
3. Ecology Regional Spill Reporting Numbers:

    a. Southwest Regional Office: (360) 407-6300 (Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Kitsap, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)
    TDD: Washington Relay Service 711 or (800) 833-6388.

1.3 PARK TRAFFIC/PEDESTRIAN CONTROLS

A. Properly warn the public of construction equipment and activities, open trenches, and/or other unsafe conditions by providing all necessary warning equipment. Equipment includes warning signs, barricades, fencing, flashing lights and traffic control personnel (flaggers).

B. Conduct operations with the least possible obstruction and inconvenience to the public in accordance with appropriate Section(s) of the WSDOT "Standard Specifications".

1.4 PROTECTION OF WORK

A. Protect Work, materials, and equipment against damage, weather conditions, or other hazards. Equipment, Work or materials found damaged or in other than new condition will be rejected by Project Representative.

1.5 REMOVAL AND REPLACEMENT OF STATE-OWNED ITEMS

A. Should any state-owned items, such as signs, bumper blocks, or related items, interfere with the proper construction process, remove and reinstall such items to the satisfaction of Project Representative.

1.6 USE OF PARK SPACE

A. Only in areas of park that Contract covers and only during active inclusive dates of Contract.

B. Contractor vehicle and equipment parking only as designated by Project Representative.

C. Contractor will be issued temporary parking passes for construction crew, vehicles and equipment, valid for the duration of the contract only.

1.7 UTILITIES

A. Existing subsurface utilities on Project are represented on Contract Drawings to the best of the Commission's knowledge. It is Contractor's responsibility to verify existence of utilities, and determine exact location and depth. Maintain use of utilities during construction through temporary connections or other measures suitable to Commission. No extra compensation will be made for removal, temporary connections, relocations, or replacement of utilities.

1.8 SERVICE OUTAGES

A. Coordinate and schedule outages for, power, water, and sewer service connections/repairs with Park Manager, so as not to inconvenience park staff or public.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 015526 – TRAFFIC CONTROL

PART 1 – GENERAL

1.1 ROADWAY CLOSURE

A. Closure of the park is not in the best interest of the general public. The contractor may request temporary road closures for up to four hours with a 48 hour notification to the Parks representative. The closure must have Parks approval before closure will occurs.

1.1 RELATED REQUIREMENTS

A. Section 015000 – Temporary Facilities and Controls

1.2 GENERAL

A. Provide flaggers, signs, and other traffic control devices in accordance with the Washington State Department of Transportation (WSDOT) Current Edition, Standard Specifications for Road, Bridge, and Municipal Construction and the Manual on Uniform Traffic Control Devices (MUTCD). Erect and maintain construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public from injury or damage as a result of the Contractor's operations that may occur on highways, roads, drives, streets, or sidewalks and walkways. Do no work on or adjacent to the above locations until necessary signs and traffic control devices are in place.

B. These flaggers, signs, and other traffic control devices are for the safety of the public, the Contractor's employees, and Commission's personnel and to facilitate the movement of the traveling public. They may be used for the separation or merging of public and construction traffic when in accordance with a specific approved traffic control plan.

C. Upon failure of the Contractor to immediately provide flaggers; erect, maintain, and remove signs; or provide, erect, maintain, and remove other traffic control devices, the Commission may, without further notice to the Contractor, shut down the Contractor's activity until adjacent traffic control is implemented.

D. Providing adequate flaggers, signs, and other traffic control devices for the protection of the work and the public at all times, regardless of whether or not the flaggers, signs, and other traffic control devices are ordered by the Project Representative, furnished by the Commission, or paid for by the Commission or by any modifications made by the Contractor. The Contractor shall be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or any negligence in connection therewith.

E. Lane closure or diversion: advise Project Representative a minimum of two calendar days prior to implementation.

1.3 CONFORMANCE TO ESTABLISHED STANDARDS

A. Flagging, signs, and other traffic control devices: conform to the standards established in the latest edition of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, to the WSDOT Traffic Control Plans 1 through 18 (TC1-19) as published by WSDOT at https://www.wsdot.wa.gov/Design/Standards/PlanSheet/Work-Zone-Typical-TCPs.htm and to the Manual on Uniform Traffic Control Devices (MUTCD).

1.4 SUBMITTALS

A. The plans show an option for temporary traffic patterns. The plans were not intended to provide all designs necessary to meet State, Federal local design requirements.

B. Submit a temporary traffic control plan for Project Representative review.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 CONSTRUCTION PARKING CONTROL

A. Control vehicular parking to prevent interference with public traffic and parking, and access by emergency vehicles. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas. Prevent parking on or adjacent to access roads or in non-designated areas.

3.2 TEMPERAY SITE MODIFICATIONS

A. In the areas where the site was modified, to allow for traffic patterns, shall be returned to its original condition and/or upgraded to the final designs.

END OF SECTION

SECTION 015639 - TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the administrative and procedural requirements for the protection of trees, shrubs, and plant material not designated for removal. Leave such trees, shrubs, and plant materials in place and protected from damage or injury during construction using full and adequate methods of protection and trimming of existing trees and other vegetation that interfere with, or are affected by, execution of the work, whether temporary or permanent construction, in order to preserve the aesthetic character of the park.

1.2 REFERENCES

A. Definitions

1. Arborist Qualifications: An arborist approved of by the Project Representative or certified by ISA and licensed in the jurisdiction where project is located.
2. Critical Root Zone (CRZ): The portion of the root system nearest the stem that is critical for the stability and vitality of the tree. The minimum CRZ is a circular area having a radius of 1.25 feet for each one inch of trunk diameter defined by measuring the trunk diameter at 4.5 feet above ground level. For example, a tree that has a diameter of 20 inches would have a CRZ with a radius of 25 foot from the base of the tree. This is a MINIMUM CRZ radius for healthy trees; the CRZ is usually beyond the dripline of the tree. If achievable, a ratio 2.5 feet radius for each 1 inch diameter is desirable.
3. Vegetation Protection Zone (VPZ): A defined area of any size within the project area where existing vegetation (trees, shrubs, or other plant material) is to be protected from construction impacts. The zone may be accomplished by physical barriers or other means (e.g., soil protection layers or treatments).
4. High Risk Tree: Any tree with a structural defect and/or disease that makes the tree highly prone to failure, and which has a target and may result in personal injury or property damage. A high risk tree is the same as an “Emergency Tree” as defined in WAC 352-28-010 (http://apps.leg.wa.gov/wac/default.aspx?cite=352-28-010).

B. Reference Standards

1. ANSI A300. Specifications for Tree, Shrub, and Other Woody Plant Management.
2. ANSI Z133-2012. Safety Requirements for Arboricultural Operations.
3. Council of Tree and Landscape Appraisers. (2000). *Guide for Plant Appraisal*, 9th ed. International Society of Arboriculture, Champaign, Illinois.

1.3 SUBMITTALS

A. Tree Removal and Pruning Schedule: Written schedule from contractor detailing scope and extent of tree removals and pruning of trees to remain that interfere with or are affected by construction.

1.4 QUALITY ASSURANCE

A. Tree Pruning Standard: Comply with ANSI A300 (Part 1), "Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Pruning)."

B. Construction Management Standard: Comply with ANSI A300 (Part 5): Management of Trees and Shrubs During Site Planning, Site Development, and Construction

C. Tree Planting: Comply with ANSI A300 (Part 6) Planting and Transplanting

D. Tree Root Protection and Management: Comply with ANSI A300 (Part 8) - 2013 Root Management Standard

PART 2 - PRODUCTS

2.1 PLASTIC MESH FENCING WITH STEEL POSTS

A. Continuous molded safety mesh 36 inches wide with clear openings no more than 1-1/2 inches x 2 inches. Orange, 40 grams per square foot, high density polyethylene with U-V inhibitor suitable for above-grade use.

B. Posts five-foot steel heavy-duty “T” posts, 1-3/8 inches x 1-3/8 inches x 7/64 inches with steel anchor.

C. Nylon zip straps having a minimum breaking strength of 150 lbs.

2.2 SOIL AND ROOT PROTECTION

A. Mulch: Ground, shredded bark, or wood and bark chips, free from deleterious materials. Or new straw mulch, free from weeds, weed seeds, and foreign materials.

B. Landscape fabric: American Excelsior Stabilenka 140, Celanese Mirafi 140, Propex 45-45, or approved equivalent geotextile.

C. Filter Fabric: Manufacturer's standard, nonwoven, pervious, geotextile fabric of polypropylene, nylon, or polyester fibers.

D. Ground staples: 9 inches x 9 inches wire staples sufficient for holding landscape fabric or filter fabric in place for required time period.

E. Ground protection mats: Construction mats or timber mats, as a temporary road surface of sufficient weight rating for the equipment being operated in the work area.

2.3 TREE TRUNK PROTECTION

A. Common wood 2 inches x 4 inches lumber, 8 feet long, without nails, other hardware, concrete residue, or other material that may be detrimental to plant health.

B. Strapping sufficient to hold 2 x 4's in place.

PART 3 - EXECUTION

3.1 PLANNING AND NOTIFICATION

A. Where existing trees and other vegetation are in the area of work, or where existing trees outside the area of work have a CRZ extending into the area of work, employ methods to minimize adverse impact to the existing trees (including limbs, stems, and roots), understory vegetation and their root systems, and soils. Where VPZ are designated by the Project Representative and/or in project plans, observe protection measures set forth herein. Notify the Project Representative of any construction work within the CRZ of trees at least two (2) working days before the scheduled activity.

3.2 PREPARATION

A. Prior to Construction: Erect tree and plant protection prior to beginning any site work. Protect trees to remain against cutting, breaking, skinning, or compaction of roots; skinning or bruising of bark; breaking of branches and foliage. Review locations, fencing, and other markings of any VPZ and CRZ for trees within the construction area with the Project Representative.

B. Tree Removal: Trees that are scheduled for removal as part of the project should be removed before construction to prevent hazards during construction.

C. Material Storage: Do not store construction materials, debris, or excavated material inside critical root zones or vegetation protection zones.

D. Vehicle and Foot Traffic: Designate access routes within construction area and limitations on equipment and vehicles. Designate parking on existing pavement or away from critical root zones of trees. Limit vehicle and foot traffic within CRZ to minimize soil compaction over root systems.

3.3 CRITICAL ROOT ZONE AND VEGETATION PROTECTION ZONE DESIGNATION

A. Temporary Fencing: Install temporary fencing around CRZ and VPZ as indicated by Project Representative. Maintain temporary fence and remove when construction is complete.

1. Line posts space at eight feet maximum. Set posts vertically to minimum 18 inches depth. Posts may be driven provided method of driving does not damage posts. Ensure that posts do not damage tree roots.
2. Secure plastic fencing to posts with nylon zip-straps, minimum three per post. Draw fence material tight and vertical.

3. With Project Representative's approval, sections of tree protection fencing may be removed temporarily to allow approved short-term construction activities. Stockpile removed fencing carefully for reinstallation. Reinstall fencing immediately when construction operations permit.

B. Tree Trunk Protection: Where required tree trunks shall be protected by placing 2 x 4 lumber around the trunk, spaced so that strapping will not come in contact with the tree bark and lumber does not damage branches. Use strapping to hold lumber in place. Secure straps without nailing into or otherwise damaging tree bark.

3.4 SOIL COMPACTION, LOSS, AND DAMAGE WITHIN THE CRITICAL ROOT ZONE

A. Protection against soil compaction within the CRZ may include but will not be limited to the following methods:

1. Application of a 6-inch thick layer of mulch (or wood chips salvaged from clearing and grubbing operations) within the CRZ. Replenish mulch as necessary to maintain a 6-inch depth. Do not place mulch within 6 inches of tree trunks. Where mulch is to be removed following project completion it should be underlayed with a porous geotextile.
2. Ground protection mats, such as: timber or steel planking, construction mats, 1/2 inches thick CDX grade plywood, or brush for protection of surface roots and vegetation from equipment.
3. Where equipment operating within the CRZ exceeds 12,000 lbs use a 6-inch layer of mulch overlayed with ground protection mats described above.

B. Protection of soils against erosion and loss within the critical root zone of trees may require application of mulch, wood chips, or landscape fabric at the request of the Project Representative.

C. Noxious Materials: Protect soils from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials; washout of concrete mixing vessels and tools or other products that change the acidity of soils; and ponding, eroding, or excessive wetting caused by dewatering operations.

3.5 TRENCHING, DIGGING, TUNNELING, AND GRADING WITHIN THE CRITICAL ROOT ZONE:

A. Disturbance to soils and impacts to roots within the CRZ may require any of, and will not be limited to, the following methods, practices, and restrictions:

B. Maintain existing grade within CRZ of trees unless otherwise directed.

C. Lowering grades (cutting): Where existing grade is above new finish grade shown around trees, carefully excavate within CRZ to new grade. Cleanly cut roots exposed by excavation approximately 3-inches below soil surface of new finish grade.

D. Raising grades (filling): Where existing grade is raised within the CRZ to greater than 4 inches above existing grade these roots shall be considered damaged by smothering. Methods to

increase air exchange of tree roots within these areas may be required. Examples of such methods may include and will not be limited to:

1. Application of a 6 inch or thicker layer of large clean aggregate (2 inches by 4 inches or larger) covered with landscape fabric below fill material to maintain large pore space.

E. Alternative excavation methods that minimize root damage may be required. These may include but are not limited to: hand digging, horizontal boring, use of an air excavation tool, or other methods as otherwise deemed necessary by the Project Representative.

F. Only limited intrusions into tree CRZ zones will be allowed as shown on the plans and with the approval of the Project Representative. Where trenching for utilities or irrigation is required within CRZ's of trees the following may be required:

1. No cutting of roots greater than two inches diameter. Tunnel under or around roots by drilling, auger boring, air excavation, or digging by hand.
2. Where necessary for installation, cut roots with sharp pruning instruments flush with the edge of the trench or tunnel; do not break or chop.
3. Avoid hitting roots with heavy equipment. Roots that are ripped by equipment should be excavated and cut cleanly at the closest point to the end of the damage.
4. Pile excavated soil outside of the CRZ of residual trees and return area to original grade upon completion of work.
5. Cover exposed roots with soil as soon as possible or at the end of each day; the soil compacted to the original firmness only; and, watered when conditions are dry.
6. Tree root pruning or other tree root treatments as directed by the Project Representative.
7. Root painting is not permitted.

3.6 STEM AND BRANCH PRUNING:

A. Any unnecessary cutting, breaking, skinning, or bruising of bark; breaking of branches and foliage; damage or clearing of vegetation in the work area will not be permitted. Where permitted, stem and branch pruning must follow ANSI A300 (Part 1).

B. Temporary tie-up of low limbs is permitted where designated by the project representative.

C. All final pruning cuts shall be made in branch tissue close to the trunk or parent limb, without cutting into the branch bark ridge or collar and without leaving a stub. Flush cuts to the tree trunk that remove the branch collar are unacceptable. Flush cuts result in a larger wound and expose trunk tissues to the possibility of decay.

D. All major tree pruning must have prior approval of Project Representative. An ISA certified arborist may be required, at the Contractors expense, for extensive or technically challenging pruning activities. Such requirements will be made explicit to the Contractor prior to the start of work.

E. Only proper branch pruning techniques will be accepted. Improperly pruned trees could be irreparably damaged and are subject to section 3.7 DAMAGE TO TREES AND TREE REPLACEMENT.

3.7 DAMAGE TO TREES AND TREE REPLACEMENT:

A. Should any tree or vegetation designated to remain be damaged in the course of construction immediately notify the Project Representative for inspection and direction for remedy.

B. Remedies for damage will, at the Owner's discretion, require removal and disposal of the damaged tree(s) and be one of the following, at the discretion of the Project Representative.

1. Compensate the Owner in cash or as a credit to the contract for up to the full value of the damaged tree, as appraised by an ISA certified arborist according to the latest edition of the "Guide for Plant Appraisal".

C. Notify Project Representative in any case where construction called for in the contract documents cannot be completed without damage to trees identified to remain. Approval of the Project Representative is required prior to beginning construction described in the contract documents that might damage a tree designated to remain. Any tree designated to remain which is damaged without Project Representative's written approval, even if damage is necessary to complete the work, will subject the Contractor to remedies described in section 3.7 B above.

END OF SECTION

SECTION 016000 – PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 COMMISSION FURNISHED ITEMS

A. The Commission furnishes no items outside of water to maintain plantings. Make all arrangements for and provide all materials required to accomplish the Work.

1.2 IMPLIED/INCIDENTAL MATERIALS

A. Minor materials required for proper Project completion although not specifically mentioned or shown in Contract documents, are part of materials to be provided by Contractor as a part of Contract and are considered incidental to the total cost of Project. No additional compensation is due to the Contractor for providing such items.

1.3 QUALITY OF MATERIALS

A. Materials are to be new, free from defects, and of quality specified in the drawings and specifications.

B. Select and provide materials to ensure satisfactory operation and rated life in prevailing environmental conditions were installed.

C. Same make and quality throughout the entire job, for each type. Furnish materials of latest standard design products of manufacturers regularly engaged in their production.

1.4 SPECIFIED MATERIALS

A. Drawings and specifications generally reference only one make and model for each item of material or equipment required. This is not intended to be restrictive but indicates the standard of quality, design, and features required.

B. Specified product is the basis of design regarding physical size, strength, and performance. Products named indicate minimum acceptable product and are "or equal" unless noted otherwise.

1.5 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 14 days prior to time required for preparation and review of related submittals.

1. Conditions: Project Representative will consider Contractor's request for substitution when the following conditions are satisfied:

    a. Requested substitution is consistent with Contract Documents and will produce indicated results.
    b. Requested substitution provides sustainable design characteristics that specified product provided.
    c. Requested substitution will not adversely affect Contractor's construction schedule.
    d. Requested substitution has received necessary approvals of Authorities Having Jurisdiction.
    e. Requested substitution is compatible with other portions of Work.
    f. Requested substitution has been coordinated with other portions of Work.
    g. Requested substitution provides specified warranty.
    h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Project Representative will consider requests for substitution if received within 14 days after commencement of the Work.

1. Conditions: Project Representative will consider Contractor's request for substitution when the following conditions are satisfied:

    a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
    b. Requested substitution does not require extensive revisions to Contract Documents.
    c. Requested substitution is consistent with Contract Documents and will produce indicated results.
    d. Requested substitution provides sustainable design characteristics that specified product provided for achieving LEED prerequisites and credits.
    e. Requested substitution will not adversely affect Contractor's construction schedule.
    f. Requested substitution has received necessary approvals of Authorities Having Jurisdiction.
    g. Requested substitution is compatible with other portions of Work.
    h. Requested substitution has been coordinated with other portions of Work.
    i. Requested substitution provides specified warranty.
    j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

1.6 SUBSTITUTION OF MATERIALS ("OR EQUAL")

A. Proposed equipment to be considered "or equal" will necessitate written approval by the Project Representative prior to substitution.

B. On requests for substitution of materials clearly define and describe proposed substitute.

C. Accompany requests by complete specifications, samples, records of performance, certified test reports, and such other information as the Engineer may request to evaluate the substitute product.

D. Contractor is responsible for a substitute item suiting the installation requirements and for additional costs incurred as a result of substitution.

E. Final decisions regarding quality and suitability of proposed substitutions rests solely with Project Representative and will be based on information submitted.

1.7 TECHNICAL DATA

A. Technical data and information contained herein relies entirely on tests and ratings provided by manufacturers who are solely responsible for their accuracy. Project Representative, by use of this information in no way implies that Project Representative has tested or otherwise verified the results of published manufacturer's information.

1.8 DELIVERY, STORAGE AND HANDLING

A. Transport products by methods to avoid product damage. Only deliver products to the site that are undamaged and free from defects.

B. Provide proper equipment and personnel to handle and transport materials/products to the Project sites safely and undamaged.

C. Promptly inspect material to assure that products comply with Contract requirements, quantities are correct, and products are undamaged.

D. Store and/or stockpile materials and products only in areas of park designated and approved by Project Representative prior to delivery.

E. Arrange storage to provide easy access for inspections. Original product labels, certifications, stamps, etc. to be intact and readily visible for inspection purposes.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 017329 - CUTTING AND PATCHING

PART 1 – GENERAL

1.1 SUMMARY

A. This section includes procedural requirements for cutting and patching

1.2 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

B. Patching: Fitting and repair work required to restore surface to original condition after installation of other Work.

1.3 RELATED WORK

A. Coordinate related work specified in other parts of the Project Specifications, including but not limited to:

1. Utility Trench Repair (Gravel/Pavement) – 320118
2. Asphalt Paving - 321216

1.4 SUBMITTALS

A. Cutting and Patching Proposal: For work not clearly indicated as cutting and patching on the drawings or specifications, submit a proposal describing procedures at least seven (7) days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information, as applicable:

1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
2. Owner's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive the right to later require removal and replacement of unsatisfactory work.

1.5 QUALITY ASSURANCE

A. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to

perform as intended, or that results in increased maintenance or decreased operational life or safety.

B. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections, except as follows: patch Asphalt Pavements with WSDOTSS Hot Mix Asphalt Class ½" and comply with all WSDOTSS 5-04 and all related sections.

B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting, and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection:

1. Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
2. Take precautions required by regulations and Standard Specifications to protect personnel and property.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete & Asphalt: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting. If a valve is used, provide access to the valve.
5. Proceed with patching after construction operations requiring cutting are complete.
6. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible.
7. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
8. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

C. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION

SECTION 017419 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 DEBRIS DISPOSAL

A. No disposal site has been provided by the state for any debris or waste generated by or resulting from the specified Work.

B. Waste and debris removed from the worksite and not specified for reuse becomes the responsibility of the Contractor and disposed of off park property in areas authorized by the applicable county and/or state agencies and in accordance with current rules and regulations governing the disposal of solid waste. Disposal fees and sundry charges are paid by the Contractor and are incidental to the contract.

C. Burning will not be permitted on this Project.

1.2 DAMAGE TO FACILITIES, ROADS, VEGETATION OR PROPERTY

A. During the course of construction, should any park facility be damaged by the Contractor's actions, operations or neglect, repair any such damages to their original condition, as acceptable to the Project Representative, at no cost to the Commission.

B. Repair, restore or replace any park roads, vegetation or property damaged by the Contractor to the original condition at the time construction began. Repair or replace trees and vegetation indicated to remain, which has been damaged by construction operations, in a manner acceptable to the Project Representative.

1.3 PROGRESS CLEANING

A. Remove rubbish and debris from park property daily unless otherwise directed so as not to allow accumulation. Store materials that cannot be removed daily only in areas specified by the Project Representative.

B. Maintain worksites in a neat and orderly condition at all times.

C. All cleanup operations are incidental to the Contract and no extra compensation will be made.

1.4 FINAL CLEAN-UP

A. Clean up the entire construction site and all grounds occupied by the Contractor in connection with the Work. Upon completion of the Work and prior to final inspection and acceptance,

B. Fine graded, rake clean and smooth all worksites and disturbed areas. Remove from the park: rubbish, surplus and discarded materials, falsework, temporary structures, equipment and debris.

C. Leave all phases of the Project clean and ready for public use prior to final acceptance.

D. Inspect all materials and surfaces for damage, scratches, marring, untreated ends of sawcuts, etc. and repair to original or intended condition.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 FINAL CLEANUP

A. Execute final Project cleanup prior to final inspection.

1. Reference Section 017419 – Construction Waste Management and Disposal.

1.2 OPERATING AND MAINTENANCE (O&M) INSTRUCTION MANUAL

A. Final payment will be held to no more than 95 percent completion percentage until receipt of the O & M Instruction Manuals. Payment for Contract closeout item will be made after receipt and approval of the manuals by the Project Representative. Have O & M Instruction Manuals prepared before final payment. Lack of O & M Instruction Manuals will not be a cause for Contract extensions.

B. Furnish three (3) complete sets of binders and one (1) electronic PDF copy on storage device containing the following data for each mechanical, pumping, electrical equipment, major hardware, and plumbing installation or provided on this Project:

1. Installation instructions
2. Operating instructions (start-up and shut-down)
3. Maintenance instructions, including trouble shooting guide
4. Electrical schematics
5. Illustrated parts breakdown and code (if available)
6. Parts list (complete)
7. Technical manuals
8. Provide a complete list of manufacturer's representatives sales offices, or suppliers of major parts used on this Project, including their business address and telephone number, for the Park Manager's use when maintaining/repairing the system. Major parts are defined as other than miscellaneous plumbing, wire, piping fittings, etc.
9. List of subcontractors contact information, and specific items of work performed by them.
10. Tab binders and clearly mark all information contained.

C. Affix to walls, panels, boxes or at other locations, the following data sealed in heavy plastic:

1. Operating instructions (start-up and shut-down)
2. Electrical schematics

D. Operating instructions refer to designated parts of each particular installation as necessary and tag such parts with permanent markers as directed by Project Representative. This includes operational equipment.

1.3 AS-BUILTS

A. Before final acceptance of Project, furnish Project Representative "As-Builts" which shows as-built locations and dimensions of major items constructed. Include locations and elevations of existing utilities encountered during excavation. Show location of pipes, manholes, buildings, structures, etc. by field measurements consisting of at least two (2) ties to permanent surface objects such as hydrants, buildings, etc.

B. Final payment: No more than 95 percent until As-Built Drawings received. Payment made after receipt and acceptance of drawings by Project Representative. Lack of As-Built Drawings will not be a cause for contract extensions.

1.4 SPECIAL TOOLS

A. Deliver special tools required for maintenance and adjustment of equipment to Project Representative upon completion and before final acceptance of Project.

1.5 SPARE MATERIALS AND PARTS

A. Before final acceptance, deliver spare materials, parts and other similar items to storage locations specified by Project Representative.

1.6 CERTIFICATES AND PERMITS

A. Submit signed original certificates of compliance and final approval from Authorities Having Jurisdiction.

1.7 OUTSTANDING DOCUMENTS

A. Expedite and submit outstanding administrative documents including outstanding cost proposals, Change Orders, etc.

1.8 PRIOR OCCUPANCY

A. Reference General Conditions.

B. Commission has the right to occupy completed portions of Project prior to final acceptance, and such occupation is not an acceptance of Project. Prior to occupancy, Project Representative and Contractor mutually agree to a date for prior occupancy; the area to be occupied; that occupancy is commencing within the requirements of applicable codes and ordinances; that endorsements from insurance companies, as necessary to maintain full insurance of Project regardless of prior occupancy, have been obtained; and that other necessary provisions are completed.

C. The Project Representative will inspect areas designated for prior occupancy and issue a letter of acceptance, or provide a list of deficiencies to be corrected to the Contractor. Correct deficiencies prior to date of occupancy.

1.9 SUBSTANTIAL COMPLETION

A. Reference General Conditions.

B. Notify Project Representative in writing a minimum of seven (7) days in advance of the scheduled date of completion. Project Representative will conduct a "pre-final" inspection and formulate a final punchlist of Work items to be completed prior to final inspection. Project Representative will establish the date of substantial completion based on pre-final inspection findings. Following this inspection, the Project Representative will either issue notice of substantial completion or advise the Contractor of deficient items which must be corrected prior to issuance of substantial completion.

1.10 FINAL INSPECTION AND ACCEPTANCE

A. Reference General Conditions.

B. Notify Project Representative in writing when Work, including punchlist items, has been completed.

C. Project Representative will schedule and conduct a final inspection to verify that outstanding Work items are complete.

D. Owner will establish the date of final acceptance based on the results of final inspection. Complete/correct any items identified as outstanding during final inspection prior to final acceptance of Project.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 024113.13 – PAVING REMOVAL

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers removal of existing pavement, either asphalt concrete (HMA) or bituminous surface treatment (B.S.T.) pavements to prepare for utility and construction work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 GENERAL

A. The Contractor shall cut and remove existing pavement as necessary to meet the requirements shown on the plans for building construction and utility trenching operations grading. The Contractor shall load, haul and dispose of all existing pavement/excess material at a site licensed to receive this material.
B. All pavement removal, that abuts asphalt that is to remain, shall be saw cut. Make a vertical full depth saw cut between any existing pavement, sidewalk, curb, or gutter that is to remain and the portion to be removed. For concrete pavement removal, a second vertical full depth relief saw cut offset 12 to 18 inches from and parallel to the initial saw cut is also required, unless the Engineer allows otherwise. For removal of bituminous pavement, asphalt planning equipment may be used in lieu of saw cutting provided that a clean vertical edge remains.

END OF SECTION

SECTION 031000 – CONCRETE FORMING & ACCESSORIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.

B. Openings for other work.

C. Form accessories.

D. Form stripping.

E. Cleanup of formwork and adjacent elements, materials,

1.2 RELATED REQUIREMENTS

A. Section 032000 - Concrete Reinforcing.

B. Section 033000 - Cast-In-Place Concrete.

1.3 REFERENCE STANDARDS

A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials 2010 (Reapproved 2015).

B. ACI 301 - Specifications for Structural Concrete 2016.

C. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014

D. ACI 347R - Guide to Formwork for Concrete 2014, with Errata (2017).

E. PS 1 - Structural Plywood 2009.

1.4 SUBMITTALS

A. Shop Drawings: Indicate pertinent dimensions, materials, bracing, and arrangement of joints and ties.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, most current edition at time of Bid.

B. Design, engineer, and construct formwork, shoring and bracing to conform to code requirements; resultant concrete to conform to required shape, line and dimension.

C. Wet concrete shall be prevented from entering waters of the State. Forms for any concrete structure shall be constructed to prevent leaching of wet concrete. Impervious materials shall be placed over any exposed concrete not lined with forms which will come in contact with State waters. Forms and impervious materials shall remain in place until the concrete is cured (HPA Provision #28).

D. Any form release agent used shall be a 100% natural, organic chemical release agent acceptable for use in sensitive aquatic environments. Refer to Products.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver prefabricated forms and installation instructions in manufacturer's packaging.

B. Store prefabricated forms off ground in ventilated and protected manner to prevent deterioration from moisture.

C. Materials shall be immediately returned to the Staging Area after use. Any cleaning of forms or equipment shall be done in an approved area within the Staging Area.

PART 2 - PRODUCTS

2.1 FORMWORK - GENERAL

A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.

B. Design and construct concrete that complies with design with respect to shape, lines, and dimensions.

C. Chamfer outside corners of beams and walls.

D. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.

E. Comply with relevant portions of ACI 301, ACI 318, ACI 347R, ACI 301, ACI 318, ACI 347R, ACI 301, ACI 318, and ACI 347R.

2.2 WOOD FORM MATERIALS - GENERAL

A. Plywood: Douglas Fir species exterior type minimum 5/8" thick; medium density overlaid one side grade; sound undamaged sheets with clean, true edges and surfaces suitable for the required finish.

B. Lumber forms shall be boards selected for straightness in both planes and having no surface defects which will prevent achieving the required finish.

2.3 FORMWORK ACCESSORIES

A. Form Ties: Snap-off type, galvanized metal, fixed length, cone type, with waterproofing washer, free of defects that could leave holes larger than 1 inch (25 mm) in concrete surface.

B. Form Release Agent: Capable of releasing forms from hardened concrete without staining or discoloring concrete or forming bugholes and other surface defects, compatible with concrete and form materials, and not requiring removal for satisfactory bonding of coatings to be applied.

C. Form Release Agent: Colorless mineral oil that will not stain concrete, absorb moisture, impair natural bonding of concrete finish coatings, or affect color characteristics of concrete finish coatings.

D. Corners: Chamfered, rigid plastic type; 3/4 x 3/4 inch (19 x 19 mm) size, unless shown otherwise; maximum possible lengths.

E. Keyways shall be formed using wood or removable plastic or metal preformed units to sizes indicated.

F. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

G. Embedded Anchor Shapes, Plates, Angles and Bars: As shown on Drawings.

H. Isolation/Expansion Joints: Furnish resilient bituminous type, Sternson Ltd. "Flexcell", Grace Construction Products "Fiber", Homosote Co. "Homex 300", Old North Mfg. Co., Inc. "Gray-Flex", or approved, non-extruding type, 1/2 inch thickness unless otherwise shown, of depth as required to bring top to within 1/4 inch of surface of slab.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.2 ERECTION - FORMWORK - GENERAL

A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 347R.

B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.

C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.

D. Align joints and make watertight. Keep form joints to a minimum.

E. Provide chamfer strips on external corners of formwork including retaining wall tops.

F. Coordinate this section with other sections of work that require attachment of components to formwork.

G. Joints And Stoppages:

1. Construction Joints:

    a. Install in accordance with provisions of ACI 318, Section 26.5.6.2, and as specified herein. Located where indicated or otherwise required and approved as to not impair strength of structure.
    b. Provide nominal ¾ inch x 2-1/2 inch key at construction joints, unless otherwise shown on drawings, or as directed by Structural Engineer.
    c. Make joints perpendicular to principal reinforcement. Continue half reinforcement and mesh across joints except at isolation joints; provide longitudinal keys at least 1-1/2 inches deep at all joints in walls and between walls and slabs or footings.
    d. Remove key-forming wood inserts and thoroughly clean surface of concrete at all joints, removing all laitance, before placing next lift.
    e. Immediately prior to placing next lift and/or adjacent slab, dampen hardened concrete of joint surface and coat with neat cement mortar of similar proportions to mortar in concrete.

2. Isolation/Expansion Joints For Slabs-On-Grade: Do not extend reinforcement through where bonded on both sides of joint; smooth dowels may extend through joint. Position accurately and support against displacement in locations listed hereinafter.

    a. Interior Work:

        1) Install isolation/expansion joints between new interior ground-supported slabs and building foundation walls, and around isolated slabs at column structures; elsewhere where shown on Drawings.
        2) Install joints with top surface recessed below finish elevation 1/4 inch, and fill with joint sealer as specified in Section 079200 Joint Sealants, finished flush with slab surface.

    b. Exterior Work:

1) Install as required in new walks and slabs in locations and/or spacings shown, elsewhere not more than 16 feet apart. Coordinate exact locations and alignment with Architect.
2) Install isolation/expansion joints between concrete walks/slabs and vertical building walls and retaining walls.
3) Install at all other locations indicated.
4) Install joints with top surface recessed below finish elevation 1/4 inch, and fill with joint sealer as specified in Section 079200 Joint Sealants, finished flush with slab surface.

3. Control Joints: As specified in Section 033000 Cast In Place Concrete.

3.3 APPLICATION - FORM RELEASE AGENT

A. Apply form release agent on formwork in accordance with manufacturer's recommendations.

B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.

C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

3.4 INSERTS, EMBEDDED PARTS, AND OPENINGS

A. Provide formed openings where required for items to be embedded in passing through concrete work.

B. Locate and set in place items that will be cast directly into concrete.

C. Coordinate with work of other sections in forming and placing openings, slots, recesses, sleeves, bolts, anchors, other inserts, and components of other work.

D. Install accessories in accordance with manufacturer's instructions, so they are straight, level, and plumb. Ensure items are not disturbed during concrete placement.

E. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.

F. Install joint fillers, primer and sealant in accordance with manufacturer's instructions.

G. Install joint covers in one piece longest practical length, when adjacent construction activity is complete.

3.5 FORM CLEANING

A. All form cleaning will be accomplished within the Staging Area. No exceptions.

B. Clean forms as erection proceeds, to remove foreign matter within forms.

C. Clean formed cavities of debris prior to placing concrete.

D. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.

E. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

3.6 FORMWORK TOLERANCES

A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

B. All curves shall have a consistent radii and vertical grade. Successive curves shall flow smoothly from one into another with no visible angle points. Straight tangents shall be unwavering in the horizontal and vertical alignment.

3.7 FIELD QUALITY CONTROL

A. Quality Control: Field inspection and testing.

B. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and to verify that supports, fastenings, wedges, ties, and items are secure.

C. Do not reuse wood formwork more than 2 times. Do not patch formwork.

3.8 INSPECTION

A. Notify Owner’s Representative at commencement of formwork.

B. Schedule an inspection of formwork with Owner’s Representative 48 hours prior to expected time of completion of formwork. Obtain Owner’s Representative’s approval of formwork before placing concrete.

3.9 FORM REMOVAL

A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.

B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.

C. Store removed forms to prevent damage to form materials or to fresh concrete. Discard damaged forms.

END OF SECTION

[SECTION 032000 – CONCRETE REINFORCING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Reinforcing steel for cast-in-place concrete.

B. Welded wire fabric reinforcing for exterior concrete slabs on grade.

C. Supports and accessories for steel reinforcement.

1.2 RELATED REQUIREMENTS

A. Section 031000 - Concrete Forming and Accessories.

B. Section 033000 - Cast-In-Place Concrete.

1.3 REFERENCE STANDARDS

A. ACI 301 - Specifications for Structural Concrete Latest Edition.

B. ACI 318 - Building Code Requirements for Structural Concrete and Commentary Latest Edition

C. ACI SP-66 - ACI Detailing Manual Latest Edition.

D. ASTM A184/A184M - Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement Latest Edition.

E. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement Latest Edition.

F. ASTM A706/A706M - Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement Latest Edition.

G. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete Latest Edition.

H. CRSI (DA4) - Manual of Standard Practice Latest Edition.

I. CRSI (P1) - Placing Reinforcing Bars Latest Edition.

1.4 SUBMITTALS

A. Shop drawings: comply with requirements of aci sp-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.

1. Indicate bar sizes, spacings, locations, and quantities of reinforcing steel and wire fabric, bending and cutting schedules, and supporting and spacing devices.
2. Prepare shop drawings under seal of a Professional Structural Engineer experienced in design of work of this type and licensed in Washington State.

B. Manufacturer's data: submit manufacturer's product data and installation instructions for proprietary materials.

C. Manufacturer's certificate: certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301.

B. Inspections: Covered hereinafter in this Section, and in Section 014100 Regulatory Requirements. Should reinforcing placed under this Contract not meet specified requirements, remove and replace to assure compliance with Contract Documents.

C. Welders' Certificates: Submit certifications for welders employed on the project, verifying AWS qualification within the previous 12 months and welders are WABO certified.

1.6 DELIVERY, STORAGE, AND PROTECTION

A. Material and Equipment: Transport, handle, store, and protect products.

B. All products to be stored in the Staging Area until day of use. All unused reinforcing steel and excess materials shall be immediately returned to the Staging Area after use.

PART 2 - PRODUCTS

2.1 REINFORCEMENT

A. Reinforcing Steel:

1. Unless otherwise noted in Structural Notes, furnish deformed bars meeting requirements set forth in ASTM Standard A615, Grade 60 (Fy = 60,000 psi). Bars shall be unpainted, uncoated, and free from rust, dirt and loose scale.
2. Where reinforcing requires welded connections, furnish weldable reinforcing bars which meet the chemical requirements of ASTM A706 (Grade 60 ksi) with a minimum carbon equivalent of .55 percent.

B. Welded Steel Wire Fabric: Furnish welded wire fabric meeting requirements set forth in ASTM A1064, Fy=65 ksi; 6"x6" - W 1.4/W 1.4 size, unless otherwise noted.

C. Reinforcement Accessories:

1. Tie Wire: 16 gauge or heavier, double annealed wire.
2. Spacer Bars for Wall Reinforcing: 3-inch bars, "U" shaped. Stock items of equivalent function may be submitted for approval.
3. Mortar Blocks:

    a. Furnish as required for use as spacers in placing reinforcement; shall be two (2) inches square (maximum).
    b. Mortar blocks shall be constructed of mortar mixed with the same proportions of sand and cement used in concrete, and develop a minimum compressive strength of 4,000 psi at 28 days.
    c. Mortar blocks shall have a tie wire embedded and the protruding ends to be tied to the reinforcing steel to hold the mortar blocks in place; mortar blocks with a grooved top may be used for supporting steel in slabs.

4. Metal Chair Supports: In lieu of mortar blocks, furnish approved heavy-duty plastic-type chair supports, sized to support all slab steel to proper height and with cushioned pads to prevent vapor retarder membrane penetration.

2.2 FABRICATION

A. Fabricate concrete reinforcing in accordance with crsi manual of practice.

B. Locate reinforcing splices not indicated on drawings at point of minimum stress. Review locations of splices with structural engineer.

C. Hooks & bends

1. Minimum bend diameter: the diameter of bend measured on the inside of the bar for standard hooks, other than stirrup and tie hooks, not less than:

    a. Bar sizes #3 through #8: 6 bar diameters.
    b. Bar sizes #9 through #11: 8 bar diameters.

D. Bending: bend cold, unless otherwise permitted by structural engineer; do not field bend partially embedded bars except as permitted by structural engineer. Conform to aci 318, section 26.6.3.

PART 3 - EXECUTION

3.1 PLACEMENT

A. General:

1. Conform to ACI 318, Section 26.6.2 for placing, supports, tolerances, and draped fabric, unless noted otherwise on Drawings.
2. Place, support and secure reinforcement against displacement. Do not deviate from required position.
3. Do not displace or damage vapor barrier.
4. Prevent water from softening soil under reinforcing during steel placing.
5. Accommodate placement of formed openings.

B. Maintain concrete cover around reinforcing as set forth on Drawings, but not less than 2 inches.

C. Cleaning Reinforcement: Clean reinforcement, at time concrete is placed, free of mud, oil, or other materials that will reduce the bond. Conform to ACI 318, Section 26.6.1.2.

D. Placement:

1. Reinforcing steel shall be accurately placed in accordance with related drawings, schedules, and detailed shop drawings and be securely tied and supported in its precise location at all points where the bars cross so as to preclude shifting during the placing of formwork, construction, or concrete placement operations.
2. Provide sufficient number of supports and of strength to carry the reinforcement. Do not place reinforcing bars more than 2 inches beyond last leg of any continuous bar support. Do not use supports as bases for runways for concrete conveying equipment and similar construction loads.

    a. Bar reinforcing for concrete slabs on grade shall be securely supported in its proper position by means of mortar blocks or metal chairs as required; wood or foam supports are not acceptable.

        1) Use mortar blocks where placing reinforcing over vapor barrier or waterproof membranes at interior slabs on grade.
        2) Metal chair supports may be used at exterior slabs.

3. Bar reinforcing shall be continuous insofar as practical and shall carry around corners and through intersections in footings and walls. Provide elbow bars of size to develop required laps.
4. Unless otherwise noted, reinforcing bar splices shall lap 40 bar diameters. Splices shall not be made at the points of maximum stress. Stagger all lap splices such that no more than 50% of horizontal or vertical bars shall splice at any location.
5. Fastening:

    a. Securely tie bars and bar supports together with 16 gauge wire to hold reinforcement accurately in position during concrete placement.

b. Set wire so that ends are directed into the concrete.
c. Wire tie stirrups and ties to main reinforcement.

E. Placing Welded Wire Fabric:

1. Install in new exterior paving slabs. Provide of size specified herein or otherwise indicated, and with minimum coverages indicated for concrete protection.
2. Install welded wire fabric in as long lengths as practicable. The mesh fabric shall be rolled out, straightened, cut to the required size and be laid reasonably flat in place.
3. Lap adjoining pieces at least 12 inches or one full mesh spacing plus 2 inches, whichever is greater, and lace splices with 16 gauge wire. Offset end laps in adjacent widths to prevent continuous laps in either direction.
4. Do not carry through isolation/expansion joints.
5. Prior to concrete placement, the mesh reinforcing shall be supported at frequent intervals as required to insure proper location in the concrete.
6. Lifting mesh reinforcing during concrete placement is not allowed, unless approved in writing by the Structural Engineer.

3.2 FIELD QUALITY CONTROL

A. An independent testing agency will inspect installed reinforcement for conformance to contract documents before concrete placement.

END OF SECTION

SECTION 033000 – CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Work includes cast-in-place concrete for building slab, thickened edge foundation, column/post footings, and slabs-on-grade, mixed, transported, placed, finished and cured, plus all formwork, reinforcement, embedment, and related Work items. Work covers structural concrete for all building components for the welcome center construction, site improvement construction, and related Work.

PART 2 – PRODUCTS

2.1 FORM MATERIALS (WOOD)

A. Plywood for exposed surfaces shall meet or exceed the requirements of APA grades B-B Plyform Class I or B-C (Group I Series). If one face is less than B quality, the B (or better) face shall contact the concrete. Plywood for unexposed surfaces may be APA grade CDX, provided the Contractor complies with stress and deflection requirements stated elsewhere in these specifications.

B. Form plywood may be ¼", ½" or ¾" thick or better, depending on the waler spacing and rate of concrete pour.

C. All studs, wales, posts, bents, stringers, etc., shall be of sufficient size and quality to support all dead and live loads imposed on the formwork.

2.2 FORM TIES

A. Form ties shall be DAYTON Sure-Grip standard plastic A-2 cone snap-in type, 3M, with full 1" breakback. Use A-8 water seal when forming on watertight walls. Use non-expansive grout to seal cone holes after removal.

2.3 STEEL BAR REINFORCEMENT

A. Reinforcing steel bar shall conform to the requirements of ASTM A615 Grade 60 deformed bars for concrete reinforcement.

2.4 CEMENT

A. Cement shall conform to the requirements of ASTM C 150 Type I/II for Portland Cement.

2.5 WATER

A. Use fresh, clean water for mixing concrete.

2.6 AGGREGATES

A. General

1. Portland cement concrete aggregates shall conform to the requirements of the latest manual "Design and Control of Concrete Mixes" published by the Portland Cement Association. Aggregates shall be manufactured from ledge rock, talus, or sand and gravel, and shall possess such characteristics of shape and size that concrete, resulting from a mixture of fine and coarse aggregates in proportions that will provide a workable mix which is satisfactory to the Engineer. Regardless of compliance with all other provisions of these specifications, if the concrete is not of a workable character, or when finished does not exhibit proper surface, either the fine or the coarse aggregate or both, shall be rejected or altered as required by the Engineer.

2. If, in the judgment of the Engineer, based on previous experience or on laboratory tests, concrete aggregates from a given source are detrimentally reactive with alkalies in Portland cement, corrective measures, including use of only low alkali cement, may be required as a condition of approval.

B. Fine aggregate for Portland cement concrete

1. Fine aggregate shall consist of sand or other inert materials, or combinations thereof, approved by the Engineer, having hard, strong, durable particles free from adherent coating. Fine aggregate shall be washed thoroughly to remove clay, loam, alkali, organic matter, or other deleterious material.

C. Coarse aggregate for Portland cement concrete

1. Coarse aggregate for Portland cement concrete shall consist of gravel, crushed stone, or other inert material or combinations thereof approved by the Engineer, having hard, strong durable pieces free from adherent coatings. Coarse aggregate shall be washed thoroughly to remove clay, silt, bark, sticks, alkali, organic matter, or other deleterious material. When required by the Engineer, coarse aggregate shall be handpicked to remove harmful material.

D. Grading

1. Maximum size for coarse aggregate shall be 100 percent passing 3/4" sieve.

2.7 GROUT

A. Grout shall be U.S. GROUT CORPORATION, NBEC non-shrink grout.

2.8 ADMIXTURES

A. Admixtures for Portland cement concrete may include any number of materials listed below. (See concrete mix design.)

1. Accelerating/water reducing

a. Admixtures meeting the requirements of ASTM C 494 requirements for Type C accelerating or Type E water-reducing and accelerating water-reducing admixture. Any admixtures shall not contain any chlorides.
b. Use and dosage of any admixtures shall follow manufacturer's recommendations depending on material temperature and performance characteristics.

2. Air entraining

a. Air entraining mixture shall be MASTER BUILDERS neutralized vinsol resin MB-VR. Required for this Project is 4 percent to 6 percent air for concrete in the forms at the construction site.

3. Superplasticizer

a. MASTER BUILDERS Rheobuild 1000

2.9 CONCRETE MIX DESIGN

A. Specified minimum compressive strength at 28 days

1. 2,800 psi

B. Cement (5 1/2 sack minimum per cubic yard)

C. Coarse aggregate (See Note #1 below.)

D. Fine aggregate (See Note #1 below.)

E. Water/cement ratio (max. w/c = 0.45 max.)

F. Water reducing admixture (WRA) (variable, dosage will vary depending on weather/temperature/slump)

G. Superplasticizer (See Note #2 below.)

H. Air entraining admixture (amount for 4 percent to 6 percent in the forms.)

I. Notes

1. Contractor shall submit mix design to the Engineer for approval prior to using on the job site.

2. The use of an approved superplasticizer is recommended if higher slumps are desired or the mix stiffens during transit or pouring. Additional water shall not be added to the mix in the field to prevent a change in the specified w/c ratio.

2.10 CURING MEMBRANE

A. Curing membrane for exterior flatwork shall be KUREZ W VDX by EULCLID CHEMICAL COMPANY, low odor, solvent free curing compound. Curing membrane film shall dry clear.

2.11 EXPANSION JOINT MATERIAL/SEALER

A. Where indicated, expansion joints in concrete flatwork shall be 1/2" thick asphalt saturated felt joint filler with a premolded void cap. The premolded void cap shall be SUPERIOR felt void. An Elastomeric sealant shall be placed following removal of the void cap.

2.12 ELASTOMERIC JOINT SEALANT

A. Joint sealant shall be SIKA SIKAFLEX – 2c, SL polyurethane elastomeric sealant, color to match concrete.

PART 3 – EXECUTION

3.1 GENERAL

A. All concrete shall be poured full depth as detailed or specified.

B. The dumping or washing of concrete trucks within park boundaries shall be authorized by the Engineer.

3.2 FALSEWORK AND FORMS

A. For a guideline on designing formwork and falsework, the Contractor is referred to ACI Standard Recommended Practices for Concrete Formwork X. All forms shall be clean and in good condition. The Engineer may reject any forms that will not produce a satisfactory surface.

B. Formwork and falsework are both structural systems. Formwork contains the lateral pressure exerted by concrete placed in the forms. Falsework supports the vertical and/or the horizontal loads of the formwork, reinforcing steel, concrete, and live loads during construction.

C. Any form and falsework system for construction of concrete structures over 4' tall shall have form and falsework plans prepared by (or under direction of) a professional Engineer, licensed under Title 18 RCW, State of Washington, and shall carry the professional engineer's signature and seal. The Contractor shall submit 3 sets of plans and calculations for review by the Engineer prior to building the forms and falsework.

D. All forms and falsework shall be constructed in accordance with the submitted form and falsework plan, including any required construction sequence and loading methods noted on the plan.

E. The Contractor shall set falsework to allow for shrinkage, settlement, and any structural camber the plans or the Engineer require.

F. The Contractor shall set all forms true to designated lines. Interior shape and dimensions shall guarantee that the finished concrete will conform with the plans.

G. If the new structure is near or Part of an existing one, the Contractor shall not use the existing 1 to suspend or support falsework (unless the plans or specifications state otherwise).

H. Barriers shall be used to protect falsework adjacent to traffic from damage by vehicles.

I. Form joints on exposed surfaces shall be in a horizontal or vertical plane. Joints parallel to studs or joists shall be backed by a stud or joist. Joints at right angles to studs and joists shall be backed by a stud or other backing the Engineer approves. Perpendicular backing is not required if studs or joists are spaced:

1. 9” or less on center and covered with 1/2” plywood, or
2. 12” or less on center and covered with 3/4" plywood

J. The face grain of plywood shall run perpendicular to studs or joists shown otherwise on the Contractor’s formwork plans and approved by the Engineer. Proposals to deviate from the perpendicular orientation shall be accompanied by supporting calculations of the stresses and deflections.

K. The Contractor shall brace falsework longitudinally and transverse to stiffen it and to keep individual members from buckling. Bracing shall be as rigid as possible. If movement is likely, wedges shall be used with braces to stabilize falsework. The Contractor shall replace any split or damaged cross-bracing.

L. On any retaining wall that follows a horizontal circular curve, the wall stems may be a series of short cords if:

1. The chords within the panel are the same length,
2. The chords do not vary from a true curve by more than 1/2” at any point, and
3. All panel points are on the true curve.

M. Where architectural treatment is required, the angle point for chords in wall stems fall at vertical rustication joints.

N. For exposed surfaces of piers, retaining walls, and columns, the Contractor shall build forms of plywood at least 3/4” thick with studs no more than 12” on center. The Engineer may approve exceptions, but deflection of the plywood, studs, or wales shall never exceed 1/500 of the span.

O. All other form plywood shall be at least 1/2” thick except on sharply curved surfaces. There, the Contractor may use 1/4” plywood if it is backed firmly with heavier material/bracing.

P. The rear faces of forms for retaining walls and sloping faced columns over 12’ high shall include portholes at least 18” square. These portholes shall occur at least every 12’ horizontally and every 8’ vertically. The portholes will provide access for vibrating and inspecting the concrete as it is placed.

Q. Round columns or rounded pier shafts shall be formed with self-supporting metal shell form or form tube that leaves a smooth, non-spiraling surface. Wood forms are not permitted.

R. All exposed corners shall be beveled 3/4”.

S. All forms shall be mortar-tight as possible with no water standing in them as the concrete is placed.

T. The Contractor shall apply a non-staining parting compound on forms for exposed concrete surfaces. This compound shall be a chemical release agent that permits the forms to separate cleanly from the concrete. For structures that will contain potable water, the parting compound shall be NSF approved for use on surfaces in contact with potable water. The compound shall not penetrate or stain the surface, and shall not attract dirt or other foreign matter. After the forms are removed, the concrete surface shall be dust free and have a uniform appearance. The Contractor shall apply the compound at the manufacturer’s recommended rate to produce a surface free of dusting action, and yet provide easy removal of the forms.

U. If an exposed concrete surface is to be sealed, the release agent shall not contain silicone resin. Before applying the agent, the Contractor shall provide the Engineer a written statement from the manufacturer stating whether the resin in the base material is silicone or non-silicone.

V. The Engineer may reject any forms that will not produce a satisfactory surface.

W. After the Contractor has completed the final placement of steel and forms for any concrete pour, the Engineer shall be given sufficient notice (24 hours) to permit an inspection prior to the pour. The Contractor shall be present during inspections to make necessary alterations to the forms or steel. No concrete shall be poured until the day following the final acceptance of the forms and steel, unless otherwise approved by the Engineer.

3.3 VAPOR RETARDER INSTALLATION

A. Following leveling and compaction of drainage course for floor slab, place vapor retarder sheeting with longest dimension parallel with direction of pour. Lap joints 12" and seal with appropriate tape.

3.4 CONCRETE QUALITY

A. All concrete shall be batched in manual, semi-automatic or automatic plants. Before producing concrete, the Contractor shall secure approval of the mix design(s) proposed to meet the Project specifications.

B. For transit-mixed or shrink-mixed concrete, the mixing time in the transit mixer shall be a minimum of 70 revolutions at the mixing speed designated by the manufacturer of the mixer.

Following mixing, the concrete in transit mixer may be agitated at the manufacturer's designated agitation speed. A maximum 320 revolutions (total of mixing and agitation) will be permitted prior to discharge.

C. All transit-mixers shall be equipped with an operation revolution counter and a functional device for measurement of water added. All mixing drums shall be free of concrete buildup.

D. Any mixer, when fully loaded, shall mix the ingredients into a uniform mass within the required time. Any agitator, when fully loaded, shall keep the concrete uniformly mixed. All mixers and agitators shall be capable of discharging the concrete at a steady rate.

E. Concrete temperatures shall remain between 60 Degrees Fahrenheit and 90 Degrees Fahrenheit while it is being placed. The batch of concrete shall be discharged at the Project site no more than 1 1/2 hours after the cement is added to the concrete mixture. The discharge time may be extended to 1 3/4 hours if the concrete temperature is less than 75 Degrees Fahrenheit. The Contractor shall provide test equipment as required to verify this temperature limit. When ambient conditions are such that the concrete may experience an accelerated initial set, the Engineer may require a shorter delivery time.

F. In transit-mixing, mixing shall begin within 30 seconds after the cement is added to the aggregates.

G. Central-mixed concrete, transported by truck mixer/agitator, shall not undergo more than 250 revolutions of the drum or blades before beginning discharging. To remain below this limit, the supplier may agitate the concrete intermittently within the prescribed time limit. When water or admixtures are added after the load is initially mixed, an additional 30 revolutions will be required at the recommended mixing speeds.

H. The Contractor shall provide for testing of slump, air entrainment, air and concrete temperatures at the Project site prior to pouring.

3.5 CONSISTENCY

A. The maximum slump for vibrated concrete (basic concrete design without water reducing agents or plasticizers) shall be 4" unless otherwise approved in writing by the Engineer.

3.6 NON-SHRINK GROUT

A. Prepare surfaces, mix, place and finish material per manufacturer's recommendations.

3.7 PLACING CONCRETE

A. The Engineer shall be given sufficient notice (24 hours) prior to all concrete pours to enable him to be present during the actual pour. Notifying the Engineer at the time of final acceptance of forms and steel as described above (3.2) will be deemed sufficient notice to pour the following day, unless otherwise approved by the Engineer.

B. Placing concrete

1. The Contractor shall not place concrete:

    a. On frozen or ice-coated ground or subgrade.
    b. Against or on ice-coated forms, reinforcing steel, structural steel, conduits, precast members, or construction joints.
    c. Under any rainy conditions; placing of concrete shall be stopped before the quantity of surface water is sufficient to affect or damage surface mortar quality or cause a flow, wash, or pitting of the concrete surface.
    d. In any foundation until the Engineer has approved its depth and character.
    e. In any form until the Engineer has approved it and the placement of any reinforcing within it.
    f. In any Work area when vibrations from nearby Work may harm the concrete's initial set or strength.

C. When a foundation excavation contains water, the Contractor shall pump it dry before placing concrete.

D. All foundations and forms shall be moistened with water just before the concrete is placed. Any standing water on the foundation or in the form shall be removed before pouring commences.

E. The Contractor shall place concrete in the forms as soon as possible after mixing (never later than 1 1/2 hours after the cement was added to the mix). The concrete shall always be plastic and workable. For this reason, the Engineer may reduce the mix-to-placement time even further. Concrete placement shall be continuous, with no interruption longer than 20 minutes between adjoining layers. Each layer shall be placed and consolidated before the preceding layer takes initial set. After the initial set, the forms shall not be jarred, and projecting ends of reinforcing bars shall not be disturbed. Retempering of the concrete shall not be allowed.

F. Any method for placing and consolidation shall not segregate aggregates or displace reinforcing steel. Any method shall leave a compact, dense, and impervious concrete with smooth faces on exposed surfaces. Plastering is not permitted. The Contractor, at no expense to the State, shall remove any Section of defective concrete.

G. If the concrete will drop more than 5', it shall be deposited through a sheet metal (or other approved) conduit. If the form slopes, the concrete shall be lowered through approved conduit to keep it from sliding down 1 side of the form. No aluminum conduit or tremies shall be used to pump or place concrete.

3.8 VIBRATORS

A. Contractor shall have 2 vibrators on the jobsite prior to pouring any concrete. No concrete shall be poured without vibrating.

B. Vibration of concrete

1. The Contractor shall supply enough vibrators to consolidate the concrete according to the requirements of this Section. Each vibrator must:

    a. Be designed to operate while submerged in the concrete.
    b. Vibrate at a rate of at least 7,000 pulses per minute.

2. Immediately after concrete is placed, vibration shall be applied in the fresh batch at the point of deposit. In doing so, the Contractor shall:

   a. Space the vibrators evenly, no further apart than twice the radius of the visible effects of the vibration.
   b. Ensure that vibration intensity is great enough to visibly affect a mass of 1" slump concrete across a radius of at least 18".
   c. Insert the vibrators slowly to a depth that will effectively vibrate the full depth of each layer, penetrating into the previous layer on multi-layer pours.
   d. Protect partially hardened concrete (i.e. non-plastic) which prevents vibrator penetration when only its own weight is applied by preventing the vibrator from penetrating it or making direct contact with steel that extends into it.
   e. Not allow vibration to continue in 1 place long enough to form pools of grout.
   f. Continue vibration long enough to consolidate the concrete thoroughly, but not so long as to segregate the aggregates.
   g. Withdraw the vibrators slowly when the process is complete.
   h. Not use vibrators to move concrete from 1 point to another in the forms.

3. When vibrating and finishing top surfaces that will be exposed to weather or wear, the Contractor shall not draw up water or laitance to the surface.

3.9 FINISH

A. Concrete floors, slabs, and walks shall be trowel finished to a hard, smooth surface with a constant pitch to drain or to the grade as shown on the plans. Expansion joints and exposed edges shall be finished with a 1/2" radius edger with narrow flat. All exterior exposed concrete shall receive a light broom finish. Direction of broom finish shall be transverse to the direction of travel. After final finishing, edge all exposed edges and expansion joints.

B. Trowel all floors/flat slabs level or to true slopes, with tolerance of 1/8" in 10'.

3.10 WEATHER AND TEMPERATURE LIMITS TO PROTECT CONCRETE

A. As it is placed, concrete shall remain between 60 Degrees Fahrenheit and 90 Degrees Fahrenheit, and shall never exceed 90 Degrees Fahrenheit. To keep the concrete within this temperature range, the Contractor shall use 1 or more of these methods:

   1. Shading or cooling aggregate piles (sprinkling these piles with water is not allowed.)
   2. Refrigerating mixing water, or replacing all or Part of the mixing water with crushed ice, provided the ice is completely melted by placing time

B. If the concrete would probably exceed 90 Degrees Fahrenheit using normal methods, the Engineer may require approved temperature-reduction measures taken before the placement begins.

C. If air temperature exceeds 90 Degrees Fahrenheit, the Contractor shall use water spray or other approved methods to cool all concrete-contact surfaces to less than 90 Degrees Fahrenheit. These surfaces include forms, reinforcing steel, steel beam flanges, and any others that touch the mix. Water-reducing admixtures shall be used to ensure compliance with slump and water

quantity requirements. The Contractor shall reduce the time between mixing and placing to a minimum, and shall not permit mixer trucks to remain in the sun while waiting to discharge concrete. Chutes, conveyors, and pump lines shall be shaded.

D. The Contractor assumes all risks connected with the placing of concrete during cold weather. The Contractor shall provide a written procedure for cold weather concreting to the Engineer for review and approval. Permission given by the Engineer to place concrete during cold weather will, in no way, ensure acceptance of the Work by the State, nor place the State in a position of liability. Should the concrete placed under such conditions prove unsatisfactory in any way, the Engineer shall still have the right to reject the Work although the plan and Work was carried out with his permission.

E. The Engineer may require the Contractor to provide and maintain a recording thermometer near the concreting site. During freezing or near-freezing weather, data from this thermometer shall be readily available to the Engineer.

F. The Contractor shall not mix nor place concrete while air temperature is below 35 Degrees Fahrenheit, unless the water or aggregates (or both) are heated to at least 70 Degrees Fahrenheit. The aggregate shall not exceed 150 Degrees Fahrenheit. If the water is heated to more than 150 Degrees Fahrenheit, it shall be mixed with the aggregates before cement is added. Any equipment and methods shall heat the materials evenly and shall not alter or prevent the required amount of air entrainment.

G. The Contractor may warm stockpiled aggregates with dry heat or steam, but not by applying flame directly or under sheet metal. If the aggregates are in bins, steam or water coils or other heating is not permitted on or through aggregates in bins. If using dry heat, the Contractor shall increase mixing time long enough to permit the super-dry aggregates to absorb moisture.

H. Any concrete placed in air temperatures below 35 Degrees Fahrenheit shall be immediately surrounded with a heated enclosure. Air temperature within the enclosure shall be maintained between 50 Degrees Fahrenheit and 90 Degrees Fahrenheit, and the relative humidity shall be above 80 percent. These conditions shall be maintained for a minimum of 7 days. The Contractor shall stop adding moisture 24 hours before removing the heat. Extra protection shall be provided for areas especially vulnerable to freezing (such as exposed top surfaces, corners and edges, thin sections, and concrete placed into steel forms). Inside the enclosure, cover concrete with plastic and blankets or other type of insulation. Leave this protective covering over the concrete Work for an additional 5 days after the heat is removed. All enclosures, plastic covers, etc., shall be weighted down around the edges to prevent lifting by the wind.

I. If weather forecasts predict air temperatures below 35 Degrees Fahrenheit during the 7 days just after the concrete placement, the Contractor may place the concrete only if it is protected with a heated enclosure.

3.11 REMOVAL OF FALSEWORK AND FORMS

A. Form ties shall be removed immediately after forms have been pulled, and the cone holes patched with non-shrink grout while the concrete is still “green”; then curing procedures re-established. Such repairs shall be cured a minimum of 3 days.

3.12 CURING CONCRETE

A. After placement, all concrete shall be cured for a minimum of 5 days, except for cold weather pouring.

B. The Contractor shall provide continuous moisture to the concrete surface under cure by watering a covering of heavy quilted blankets, by watering and covering with white reflective sheeting; or by wetting the outside surfaces of wood forms that have been covered on the exposed top as per above. The use of curing compounds will be allowed only for short term curing, the requirements for moist curing shall be implemented no later than the end of that day's pour or sooner if the air temperatures area high, concrete is in direct sun, or under windy, drying conditions.

C. Concrete surfaces shall not become dry during form removal, tie cone patching, or during the entire curing period. Concrete that is allowed to become surface dry or frozen during the period from initial pour to end of curing period, shall be considered to be failed concrete, and shall be removed/replaced at the Contractor's expense.

3.13 CONCRETE SURFACE REPAIRS

A. Patching Defective Areas-General: Repair and patch defective areas with cement mortar immediately after removal of forms.

1. In no case shall reinforcement bars or welded wire fabric be cut to facilitate concrete repair unless acceptable to Project Representative prior to start of repair Work.
2. Cut out rock pockets, voids over 1/2 inch in dimension, down to solid concrete but, in no case, to a depth of less than 1 inch. Make the edges of chipping as perpendicular as possible to concrete surface. Before placing cement mortar, thoroughly clean, dampen with water, and brush-coat area to be patched with neat cement grout. Proprietary patching compounds may be used when acceptable to Project Representative.
3. For Exposed Finish Concrete surfaces, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match color and finish of surrounding concrete. Provide test areas at inconspicuous location to verify mixture and color match, for review by Project Representative before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
4. Fill holes extending through concrete by means of plunger-type gun or other suitable device form least exposed face, using a flush stop held at exposed face to ensure complete filling.

B. Repair of Exposed Finish Concrete Surfaces: Repair surfaces that contain defects which adversely affect appearance of finish. Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Project Representative. Surface defects include color and/or texture irregularities, cracks, spalls, rock pockets; fins and other projections on surface; and stains and other discoloration that cannot be removed by cleaning.

C. Repair of Other Formed Surfaces: Repair defects that adversely affect durability of concrete. If defective surfaces cannot be repaired, remove and replace concrete having defective surfaces.

1. Surface defects, as such, include cracks in excess of 0.01 inch wide, cracks of any width and other surface deficiencies which penetrate to reinforcement or completely through non-

reinforced Section, honeycomb, rock pockets, and spalls except minor breakage at corners.

D. Form Tie Holes: Remove form ties immediately after form removal. Patch following item No. (1) one above.

E. Repair of Unformed Surfaces: Test unformed surfaces for smoothness and to verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified.

1. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness, using template having required slope. Correct high and low areas as herein specified.
2. Repair finished unformed surfaces that contain defects which adversely affect durability of concrete. Surface defects, as such, include crazing, cracks in excess of 0.01 inch wide or which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, popouts, honeycomb, rock pockets, and other objectionable conditions.

F. Correct high areas in unformed surfaces by grinding, after concrete has cured sufficiently so that repairs can be made without damage to adjacent areas.

1. Correct low areas in unformed surfaces during, or immediately after completion of surface finishing operations by chipping out low area and replacing with fresh concrete. Proprietary patching compounds may be used when acceptable to Project Representative. Repair defective areas, except random cracks and single holes not exceeding 1inch diameter, by chipping out and replacing with fresh concrete. Remove defective areas to sound concrete and expose reinforcing steel with at least 3/4 inch clearance around. Dampen concrete surfaces in contact with patching concrete and brush with a neat cement grout coating, or use concrete bonding agent. Place patching concrete before grout takes its initial set. Mix patching concrete of same materials to provide concrete of same type or class as original adjacent concrete. Place, compact and finish as required to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
2. Repair isolated random cracks and single holes not over 1 inch in diameter by dry-pack method. Groove top of cracks, and chip out holes to sound concrete and clean of dust, dirt and loose particles. Dampen cleaned concrete surfaces and brush with a neat cement grout coating. Place dry-pack before cement grout takes its initial set. Mix dry-pack, consisting of one Part portland cement to 2 1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing. Compact the dry-pack mixture in place and finish to match adjacent concrete. Keep patched areas continuously moist for not less than 72 hours.

3.14 DEFECTIVE WORK

A. Remove and replace, where directed by the Project Representative, surfaces which show excessive damage, shrinkage cracks, or other deficiencies which are beyond acceptable repair.

B. Remove and replace any slabs which do not exhibit proper drainage or finish requirements.

C. Protect all concrete surfaces from damage. Damaged surfaces will be judged the same as

defective Work.

3.15 REPLACEMENT OF BROKEN CONCRETE

A. Concrete broken by the Contractor during construction shall be either repaired with polymer modified cementious epoxy concrete compounds designated by the Engineer or removed and replaced as directed by the Engineer. No broken pieces of concrete shall go back into the structure. In general, where the Engineer allows repairs to broken concrete rather than removal/replacement, the broken areas will be chipped deep into good concrete, reinforcement placed as directed and designated epoxy concrete compounds placed. In any case, all repairs or replacement shall be made to the satisfaction of the Engineer.

END OF SECTION

SECTION 033900 – CONCRETE CURING & SEALING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Initial and final curing of various horizontal and vertical concrete surfaces.

B. Sealing of interior concrete floor surfaces scheduled to have 'sealed' finish.

1.2 RELATED REQUIREMENTS

A. Section 033000 - Cast-in-Place Concrete.

1.3 REFERENCE STANDARDS

A. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; Latest Edition.

B. ACI 302.1R - Guide for Concrete Floor and Slab Construction; American Concrete Institute International; Latest Edition.

1.4 SUBMITTALS

A. Product Data: Provide data on curing compounds and sealers, including compatibility of different products and limitations.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301 and ACI 302.1R.

B. Contractor shall use ACI 305 Figure 2.1.5 to estimate the rate of evaporation of freshly poured slabs.

C. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

D. Defective Work: Contractor shall remove and replace at his own expense all defective work as adjudged by the Architect.

1.6 JOB CONDITIONS

A. Refer to Section 033000 Cast-in-Place Concrete for same and conform thereto as they apply to concrete curing and finishing work of this Section.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver curing materials in manufacturer's sealed packaging, including application instructions.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: For slabs, when the estimated evaporation rate calculated per ACI 305 Figure 2.1.5 per paragraph 1.05B above is greater than 0.2 psf/hour, provide a spray applied evaporation retarder immediately after concrete placement.

B. Formed Surfaces Excluding Foundations: Apply a liquid membrane forming curing compound conforming to ASTM C309 Type 1 Class B specifications, per manufacturer's recommendations to all formed surfaces immediately after final form removal. Not required if formwork remains in place for more than 7 days.

C. Curing Exterior Slabs - General: Unless otherwise specified, cure by one of the following methods:

1. Provide pre-approved continuous wet cure method for a minimum of 14 days.
2. Provide 'Ultracure Max' moisture retaining cover by Mctech Group, or approved, for a minimum of 14 days

D. Curing Compound For Curing Interior Slabs to be Left Exposed and Sealed: Furnish one coat curing, sealing and hardening compound, Curecrete Distribution Inc. “Ashford Formula”, or approved, applied at a rate of 200 sq.ft. per gallon.

E. Sealer Top Coat For Interior Sealed Concrete Slab Finish: Furnish one coat of Advanced Floor Products “RetroPlate 99”, or approved, applied at end of project.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that substrate surfaces are ready to be cured.

3.2 CURING

A. General

1. The Contractor shall use all necessary precautions to keep cracking of all concrete work to an absolute minimum. Beginning immediately after placement, protect concrete from premature drying, excessively hot and cold temperatures, and mechanical injury.
2. Cure floor surfaces in accordance with ACI 308R.
3. Maintain curing procedures used for seven (7) days at minimum temperature of 50 degrees F.; if mean daily temperature drops below 40 degrees F. during this period, extend curing period an equal number of days or provide temporary heat or additional protection to maintain specified minimum temperature of air in contact with concrete.

B. Temperature, Wind & Humidity: When exterior concrete slab placements are subjected to high temperatures, wind and/or low humidity the Architect may require the use of the specified evaporation retarder to minimize plastic cracking. The compound may be required to be applied one or more times during the finishing operation. The initial application is usually made after the strike-off operation.

1. Cold Weather:

a. When the mean daily temperature outdoors is less than 40 degrees F, maintain the temperature of the concrete between 50 degrees F and 70 degrees F for the required curing period.
b. When necessary, provide a proper and adequate heating system capable of maintaining the required heat without injury due to concentration of heat.
c. Do not use combustion heaters during the first 24 hours unless precautions are taken to prevent exposure of the concrete to exhaust gases which contain carbon dioxide.
d. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
e. Only the specified non-corrosive non-chloride accelerator shall be used. Calcium chloride, thiocyanates or admixtures containing more than 0.05% chloride ions are not permitted.
f. Hot Weather: When necessary, provide wind breaks, fog spraying, shading, sprinkling, ponding, or wet covering with a light colored material, applying as quickly as concrete hardening and finishing operations will allow.
g. Rate of Temperature Change: Keep the temperature of the air immediately adjacent to the concrete during and immediately following the curing period as uniform as possible and not exceeding a change of 5 degrees F in any one hour period, or 50 degrees F in any 24 hour period.

C. Curing Walls & Formed Surfaces

1. Where forms are exposed to the sun, minimize moisture loss by keeping forms wet until they can be removed safely.
2. In hot weather, immediately after forms have been removed, cure by continuous sprinkling or covering with absorptive mat or fabric kept continuously wet or use vapor mist bath. In freezing weather, protect in accordance with ACI 301.

D. Curing Interior Slabs to be Left Exposed and Sealed:

1. Spray new slab surfaces with specified and selected liquid membrane-forming curing and sealing compounds specified above for respective applications, applied at not less than the manufacturer's specified and recommended rate and in accordance with manufacturer's written instructions.
2. After curing compound has fully dried per manufacturer's recommendations, Contractor shall cover such slab surfaces with protective sheeting as necessary to avoid damage due to subsequent construction work and prior to final finishing of such floor surfaces as specified below.

E. Curing Exterior Slabs

1. Cure with moisture retaining cover or spray slab surfaces with specified and selected liquid membrane-forming curing and sealing compounds specified above for respective applications, applied at not less than the manufacturer's specified and recommended rate and in accordance with manufacturer's written instructions.
2. After curing compound has fully dried per manufacturer's recommendations, Contractor shall cover such slab surfaces with protective sheeting as necessary to avoid damage due to subsequent construction work and prior to final finishing of such floor surfaces as specified below.

3.3 APPLIED FINISHES

A. Sealer Top Coat Finish For Interior Slabs to be Left Exposed and Sealed: Just prior to Substantial Completion and following final cleaning in said spaces, spray new slab surfaces with specified sealer, applied at not less than the manufacturer's specified and recommended rate and in accordance with manufacturer's written instructions.

3.4 PROTECTION

A. Protection From Mechanical Injury

1. During the curing period, protect all concrete during period from all damaging mechanical disturbances, more especially load stresses, heavy shock and excessive vibration.

    a. Protect finished concrete surfaces from damage from construction equipment, materials and methods, from application of curing procedures, and from rain and running water.
    b. Do not permit traffic over unprotected floor surfaces.

END OF SECTION

SECTION 055200 - METAL RAILINGS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Conform to the Bidding and Contract Requirements and Division 1.

B. Provide metal fabrications where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

C. Submittals: Shop Drawings showing details of fabrication and installation. See Section 013300 - Submittal Procures

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Steel Pipe and Tube Railings manufacture shall have at least two years in fabricating the type and shape of railings shown on the plans.

2.2 PERFORMANCE REQUIREMENTS

A. Railings shall be capable of withstanding the load requirements as specified in building codes, latest edition.

2.3 METALS

A. Steel Tubing: ASTM A 500/A 500M (cold formed) or ASTM A 513.

B. Steel Pipe: ASTM A 53/A 53M, Schedule 40.

C. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

D. Iron Castings: Either gray iron, ASTM A 48/A 48M, or malleable iron, ASTM A 47/A 47M, unless otherwise indicated.

E. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.4 OTHER MATERIALS

A. Nonshrink, Nonmetallic Grout: ASTM C 1107; recommended by manufacturer for exterior applications.

B. Shop Primer for Iron and Steel Railings: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79.

C. Shop Primer for Galvanized Railings: Primer formulated for exterior use over zinc-coated metal and compatible with finish paint systems indicated.

2.5 FABRICATION

A. Assemble railing systems in shop to the greatest extent possible. Use connections that maintain structural value of joined pieces.

B. Form changes in direction of railing members by bending using prefabricated fittings.

C. Fabricate railing systems and handrails for connecting members by welding with concealed mechanical fasteners and fittings.

D. Provide manufacturer's standard wall brackets, flanges, miscellaneous fittings, and anchors to connect handrail and railing members to other construction.

E. Provide wall returns at ends of wall-mounted handrails.

2.6 FINISHES

A. Steel Railings: Hot-dip galvanized after fabrication, ASTM A 123/A 123M.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Fit exposed connections accurately together to form tight, hairline joints.

B. Set railings accurately in location, alignment, and elevation and free of rack.

C. Coat concealed aluminum surfaces that will be in contact with cementitious materials or dissimilar metals with a heavy coat of bituminous paint.

D. Install adhesives in strict accordance with manufacturer’s written instructions.

E. Attach handrails to wall with wall brackets.

END OF SECTION

SECTION 061000 – ROUGH CARPENTRY

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Provide wood, nails, bolts, screws, framing anchors, and other rough hardware, and all other items needed, and perform rough carpentry for the construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.2 BUILDING CODES

A. Conform to the requirements of the International Building Code, hereinafter called IBC latest edition, as supplemented herein.

1.3 GRADING AND MARKING

A. Lumber - Mark each piece of framing and board lumber or each bundle of small pieces of lumber with the grade mark of a recognized association or independent inspection agency. Such association or agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used. Surfaces that are to be exposed to view shall not bear grade marks, stamps, or any type of identifying mark. Hammer marking will be permitted on timbers when all surfaces are exposed to view.

B. Plywood - Mark each sheet with the mark of a recognized association or independent inspection agency that maintains continuing control over the quality of the plywood. The mark shall identify the plywood by species group or span rating, exposure durability classification, grade, and compliance with APA L870. Surfaces that are to be exposed to view shall not bear grade marks or other types of identifying marks.

1.4 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design value approved by the ALSC Board of Review.

C. Submit engineered truss design data including Shop Drawings and structural calculation for each type of roof truss. Truss design shall be stamped by a licensed Structural Engineer and indicate all design loadings, member forces, member sizes, lumber species, grades, and detail truss dimensions.

1.5 MAXIMUM MOISTURE CONTENT WHEN DELIVERED

A. Finished wood 12 percent truss materials, 9 percent Wood beams and posts as dry as the market affords. Furnish moisture content certificates upon requested.

1.6 QUALITY ASSURANCE

A. Definitions and Standards: Comply with Sections 014000 Quality Requirements, 014100 Regulatory Requirements, and 014200 References.

PART 2 – PRODUCTS

2.1 LUMBER

A. Lumber Standards: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

B. Factory marks each piece of lumber with grade stamp of grading agency.

C. Dress lumber, S4S, unless otherwise indicated.

D. Maximum Moisture Content of Lumber: Provide seasoned lumber with 19% maximum moisture content at time of dressing and shipment for sizes 2” or less in nominal thickness unless otherwise indicated.

E. Dimension (Framing) Lumber (Nominal 2” to 4” Thick): No. 2 grade or better according to size and species (unless drawings require better properties).

F. Boards (1” Thick and Less): 15% maximum moisture content, “MC-15”, or KD-15 Southern Pine, No. 2 Boards per SPIB, or Douglas Fir Construction Boards per WCLIB or WWPA rules. Lumber Standard: Manufacture lumber to comply with PS 20 “American Softwood Lumber Standard” and with governing grading rules of WCLIB and/or WWPA.

2.2 PLYWOOD SHEATHING

A. Wall: Plywood - C-D Grade, Exposure 1, not less than 24/0, and a minimum thickness of 1/2 inch, except where indicated to have greater thickness.

B. Roof: Plywood - C-D Grade, Exposure 1, with an Identification Index of not less than 24/16, and a minimum thickness of 1/2 inch, except where indicated to have greater thickness.

2.3 ATTACHMENTS FOR WOOD ENGAGING MASONRY OR CONCRETE

A. Approved type metal plugs or inserts, spaced as directed. Wood plugs embedded in masonry or concrete not permitted.

2.4 BUILDING FELT FOR WALLS

A. Use 30-pound building felt for the building wrap.

2.5 FASTENER AND ANCHORS

A. Framing Anchors: Supply framing anchors in the sizes, types, and quantities indicated in the drawings and/or as required to satisfy building codes. Provide all manufacturer recommended nails and/or screws for installation. Framing anchors shall be “Simpson – Strong Tie” connector or approved equal. Unexposed should be galvanized.

B. Nails, Spikes, Screws: Supply all nails, spikes, screws, and other miscellaneous fasteners in the sizes, types and quantities indicated in the drawings and/or as required to satisfy building codes.

C. Where rough carpentry is exposed to weather, provide stainless steel fasteners.

2.6 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor to the approval of the Engineer.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise.

B. Produce joints which are tight, true, and well nailed, with members assembled in accordance with the Drawings and with pertinent codes and regulations.

C. Lumber may be rejected by the Engineer, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.

D. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Locate nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.

E. Do not splice structural members between supports unless otherwise indicated.

F. Provide washers under bolt heads and nuts in contact with wood.

G. Do not drive threaded friction-type fasteners; turn in place. Tighten bolts and lag screws at installation and retighten as required for tight connections prior to closing in or at completion of Work.

H. Anchor and nail as shown or, if not shown, to comply with the Recommended Nailing Schedule and other recommendations of NFPA.

I. Good Grounds, Nailers, and Blocking:

1. Provide wherever shown and where required for screeding or attachment of other Work. Form to shapes and cut as required for true line and level of Work to be attached or screed.
2. Provide solid wood blocking built into gypsum drywall partitions and walls where shelving, cabinets, toilet partitions, accessories, and similar are secured.
3. Attach substrates securely with anchor bolts or other attachment devices as shown and as required to support applied loading.
4. Countersink bolts and nuts flush with surfaces, unless otherwise indicated.
5. Anchor to formwork before concrete placement.

3.2 FIELD TREATMENT OF CUTS

A. Field treat all cut or bored surfaces of pressure treated lumber with a heavy brush coating of approved preservative in accordance with AWPA M4.

3.3 STORAGE AND PROTECTION

A. Store and protect lumber, plywood, siding, and millwork from the weather.

END OF SECTION

SECTION 062000 - FINISH CARPENTRY

PART 1 - GENERAL

1.1 WORK IN THIS SECTION

A. This Section specifies finish carpentry and includes, but is not necessarily limited to:

1. Interior trim.
2. Soffits.
3. Exterior trim.
4. Siding – See Division 07, Thermal and Moisture Protection, Section 074646 - Mineral-Fiber Cement Siding.

1.2 RELATED WORK IN OTHER SECTIONS

A. Section 061000 - Rough Carpentry

B. Section 074646 – Mineral-Fiber Cement Siding

B. Section 099100 – Painting

1.3 SPECIFIC STANDARDS

A. International Building Code (IBC), latest edition.

1.4 MEASUREMENT AND PAYMENT

A. Payment for Work specified in this Section shall include all labor, materials, tools, and equipment needed to complete all the Work under this Section. No other compensation will be made.

PART 2 - PRODUCTS

2.1 SOFFITS

A. All soffits to be grooveless T1-11.

2.2 EXTERIOR TRIM

A. See Section 074646 Mineral Fiber Cement.

2.3 INTERIOR TRIM

A. Interior trim shall be mixed grain KD clear hemlock or fir.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Exterior Trim: See Section 074646 Mineral Fiber Cement

B. Interior Trim: shall be installed by skilled craftspeople. The runs shall be one piece. The boards shall be fastened using hot dipped galvanized "6d" or stainless steel finish nails.

END OF SECTION

SECTION 071000 – DAMPPROOFING AND WATERPROOFING

PART 1 - GENERAL

1.1 WORK IN THIS SECTION

A. Work includes polyethylene vapor barrier sheeting beneath concrete floor slab-on-grade as specified in this Section and indicated on the Drawings.

1.2 WORK IN OTHER SECTIONS

A. Section 033000 - Cast-in-Place Concrete

B. Section 061000 - Rough Carpentry

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's technical product data, installation instructions and recommendations for polyethylene sheeting and building wrap materials. Submit 8 1/2 inch x 11 inch product Samples.

1.4 JOB CONDITIONS

A. Coordinate Work with that of other trades. Proceed with dampproofing Work only after substrate construction and penetrating Work have been completed and accepted by the Project Representative.

PART 2 – PRODUCTS

2.1 POLYETHYLENE SHEETING

A. Polyethylene sheeting for cast-in-place concrete floor slab-on-grade shall be black polyethylene sheeting not less than 6 mils thick. Sheeting shall be resistant to decay and UV rays when tested in accordance with ASTM E 154.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with manufacturer's instructions and technical specifications for installation of polyethylene sheeting and foundation waterproofing.

B. Lap all polyethylene sheeting joints/seams with a minimum of six (6) inches overlap and seal with tape.

END OF SECTION

SECTION 072100 – THERMAL INSULATION

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Provide building insulation where shown on the Drawings, as specified herein, and as needed for a complete and proper installation and per building permit requirements.

1.2 QUALITY ASSURANCE

A. Upon completion of this portion of the Work, complete and post a certificate of insulation compliance in accordance with pertinent requirements of governmental agencies having jurisdiction.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Frame walls

1. OWENS CORNING fiberglass batts, R-21 resistive value.

B. Ceilings

1. OWENS CORNING fiberglass batts, R-49 resistive value

C. Concrete floors

a. Use 2” Rmax rigid polystyrene R-10 foam insulation.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Comply with manufacturer’s instructions for particular conditions of installation in each case. Fit ends of batts tight. Extend insulation full thickness as shown over entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation.

B. Provide insulation baffles for ceiling insulation to allow air movement into the attic. Do not install insulation so that free air flow is blocked or inhibited.

END OF SECTION

SECTION 072500 – WEATHER BARRIERS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Work in this Section includes polyethylene vapor barrier sheeting beneath concrete floor slab-on-grade and exterior building wrap as specified in this Section and as indicated on the Drawings.

PART 2 – PRODUCTS

2.1 POLYETHYLENE SHEETING

A. Polyethylene sheeting for cast-in-place concrete floor slab-on-grade dampproofing shall be black polyethylene sheeting not less than 6 mils thick. Sheeting shall be resistant to decay and UV rays when tested in accordance with ASTM E 154.

2.2 BUILDING WRAP

A. Building wrap shall be TYVEK building wrap sheeting or approved equal.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Comply with manufacturer's instructions and technical specifications for installation of building wrap and polyethylene sheeting.

B. Lap all polyethylene sheeting joints/seams with a minimum of 6" overlap and seal with tape.

C. Lap and seal building wrap seams per manufacturer's recommended installation procedures.

END OF SECTION 072500

SECTION 074113 – METAL ROOF PANELS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers the installation of steel roofing systems.

1.2 STANDARDS AND CODES

A. In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations contained in “Architectural Sheet Metal”, latest edition, of the Sheet Metal and Air Conditioning Contractor’s National Association, Incorporated (SMACNA) insofar as they are applicable for all metals.

PART 2 - PRODUCTS

2.1 ROOF SHEATHING

A. See Division 06 - Wood, Plastics, & Composites, Section 061000 - Rough Carpentry, Part 2, for specifications on this item.

2.2 ROOFING FELT

A. Asphalt saturated roofing felt, approximately 30 pounds per 100 square feet.

2.2 APPROVED MANUFACTURER

A. ASC Building Products, Inc.

B. Panel Designation: Skyline Roofing

2.3 MATERIALS

A. Panel Profile: Skyline Roofing with 1" major ribs at 12".

B. Panel Gauge: Steel conforming to ASTM A-792, Grade C, minimum yield 43,000 psi, thickness 26 ga.

C. Protective Coating: Zincalume conforming to ASTM A-972, AZ50, thickness 1.6 mils.

D. Finish: DuraTechTM xl exterior finish consisting of a baked on acrylic primer (0.2 mil) and a baked-on finish coat (0.8 mil) totaling nominal 1.0 mil dry film thickness.

E. Color: brown to match adjacent buildings. (Verify with the Engineer prior to ordering).

F. Fabrication:

1. Unless otherwise shown on Drawings or specified herein, fabricate panels in continuous lengths and fabricate flashings and accessories in longest practical lengths.
2. Roofing panels shall be factory formed. Field-formed panels are not acceptable.

PART 3 – EXECUTION

3.1 GENERAL

A. The Contractor shall provide steel roofing for the building as shown on the plans.

B. Follow manufacturer's installation instructions for hidden clips.

C. Roofing shall be installed such that it will begin and end at gable ends with complete ribs. If it becomes necessary to cut a panel to fit, it shall be cut alongside a complete rib so that a 1/4" flat will remain (matches 1/4" flat left by manufacturer on terminal ribs of complete panels).

D. In order to end with a rib at each end of the roof, it may become necessary for the Contractor to adjust the dimensions of the steel roofing. This will be done so that any adjustments will be equally distributed to both gable ends in order to maintain the symmetry of the building. The Contractor shall consult with the Engineer prior to making any dimensional adjustments. The Contractor shall take care in his planned placement of roof panels as the manufacturer's tolerances will allow adjustments of approximately 3" +/- over the length of an average roof.

E. Contractor shall install a continuous ridge vent using closure strips, insect screening, and filtering material in accordance with manufacturer's installation instructions. Do not install a closure strip at lower edge of roof.

F. On the barge boards, mini-gable trim matching the roofing color shall be applied over the top of the terminal rib and extend down over the barge board. Submit for approval. A mastic strip (METAL SALES) shall be applied prior to washered screw fasteners to fasten through the flat of the flashing and barge board.

G. Flashings and counterflashings shall be installed at all points as shown or necessary to make work watertight. Counterflashing shall be lapped at joints and around corners.

END OF SECTION

SECTION 074646 - MINERAL-FIBER CEMENT SIDING

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Work in this Section includes all labor, materials, and equipment required for installation of mineral fiber cement panel, battens, and trim.

PART 2 – PRODUCTS

2.1 EXTERIOR WALL AND GABLE SIDING

A. Panel siding shall be JAMES HARDIE COMPANY Horizontal Siding, Cedar Mill, primed.

2.2 EXTERIOR TRIM

A. Window trim, corner boards and fascia shall be JAMES HARDIE COMPANY “Hardi Trim Boards” Rustic, primed, fiber cement, 5/4” thick.

PART 3 – EXECUTION

3.1 SIDING AND TRIM INSTALLATION

A. Install Hardi products according to the manufacturer’s instructions. Wrap building with 30 lb building felt prior to placing siding.

B. Exterior Trim: The runs shall be one piece when available with all runs less than 10 feet being one piece. The boards shall be fastened using stainless steel finish nails sized to properly secure the boards.

END OF SECTION

SECTION 076000 – FLASHING AND SHEET METAL

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Provide all materials, labor, tools, and services to install flashing, sheet metal items, roofing accessories, and building expansion joint materials for moisture protection as required for a complete weather-tight system.

1.2 GUARANTEE AND WARRANTIES

A. Guarantee all sheet metal against leakage, physical deterioration, and mechanical failure for a period of 2 years. This is an extension of the normal 1-year guarantee specified elsewhere.

B. Provide manufacturer's 20-year warranty on color coated materials.

1.3 SUBMITTALS

A. Product data

1. Submit manufacturer's product specifications, installation instructions, and general recommendations for specified sheet material and fabricated products.

B. Samples

1. Submit (2) 8" square Samples of specified sheet materials to be exposed as finished surfaces.
2. Submit (2) 12" long samples of prefabricated gutters and downspout with connection to gutter and mounting bracket.

PART 2 – PRODUCTS

2.1 FLASHING AND SHEET METAL

A. Provide 26 gauge (unless noted otherwise on the Drawings) 316 stainless steel flashing powder coated dark brown.

2.2 METAL ACCESSORIES

A. Provide sheet metal clips, straps, anchoring devices, and similar accessory units as required, matching, or compatible with material being installed, non-corrosive and of the size and gauge required for the application.

PART 3 – EXECUTION

3.1 GENERAL

A. Anchor Work securely, providing for thermal expansion. Conceal fasteners where possible, and install Work true to line and level. Install Work with laps, joints, and seams which will be permanently watertight and weatherproof.

B. Protect galvanized and non-ferrous metal surfaces from corrosion or galvanic action by an application of a heavy bituminous paint on surfaces which will be in contact with concrete, masonry, or dissimilar metals. Do not allow paint to get onto visible masonry surfaces.

3.2 PROTECTION

A. Protect materials against exposure to weather and corrosion. Exercise care in the handling of flashing and sheet metal to ensure that this Work and the Work of other trades is not damaged before, during, or after installation.

END OF SECTION

SECTION 079200 – JOINT SEALANTS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Provide all materials, labor, tools, and services to apply caulking or sealing of joints around windows, doors, and over frames, and any other spaces noted on the Drawings to be caulked or sealed.

1.2 SUBMITTALS

A. Product data

1. Submit manufacturer's product specifications, handling/installation/curing instructions, and performance tested data sheets for each product required.

PART 2 – PRODUCTS

2.1 SEALANT

A. GENERAL ELECTRIC silicone sealant or approved equal.

2.2 COLOR OF SEALANT

A. Approximate color of adjacent surfaces, unless otherwise directed.

2.3 PRIMER

A. As recommended by the manufacturer of the compound or sealant.

2.4 BACKUP MATERIALS

A. Joints greater than 3/8" shall be partially filled with polyethylene backer tubing prior to sealing.

B. Material shall be non-staining to sealant.

C. Depth of back-up material shall be such as to provide a sealant depth approximately 1/2 of width.

PART 3 – EXECUTION

3.1 FILLING JOINTS

A. Preliminary

1. Be sure that joints are clean and dry before filling, caulking, and sealing.

B. Tubing

1. Install tubing in joints in accordance with manufacturer's directions. Provide materials in lengths as long as practical. Stretch and force into joint with proper tool to uniform depth.

3.2 PROTECTION

A. Mask or use other appropriate techniques to protect surfaces adjacent to joint to be sealed or caulked.

3.3 WORKMANSHIP

A. Apply silicone sealant in accordance with manufacturer's directions.

B. Caulk joints before final coat of paint is applied, filling joints and voids solid. Superficial pointing with skin bead is not acceptable. Select appropriate caulking gun nozzle for the joint to be treated. When finished, remove excess compound and sealant leaving surfaces neat, smooth, and clean.

END OF SECTION

SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes solid core doors as follows:

1. Doors with wood-veneer face and varnish finishing.
2. Factory fitting flush wood doors to frames and factory machining for hardware.

1.2 SUBMITTALS

A. Product Data: For each type of door indicated. Include factory-finishing specifications.

B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.

1. Indicate dimensions and locations of mortises and holes for hardware.
2. Indicate dimensions and locations of cutouts.
3. Indicate doors to be factory finished and finish requirements.

C. Samples: For each face material and finish.

1.3 QUALITY ASSURANCE

A. Quality Standard: In addition to requirements specified, comply with NWWDA I.S.1-A, "Architectural Wood Flush Doors."

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Algoma Hardwoods, Inc.
2. Ampco, Inc.
3. Buell Door Company Inc.
4. Chappell Door Co.
5. Eagle Plywood & Door Manufacturing, Inc.
6. Eggers Industries.

7. Graham; an Assa Abloy Group Company.
8. Haley Brothers, Inc.
9. Ideal Architectural Doors & Plywood.
10. Ipik Door Company.
11. Lambton Doors.
12. Marlite.
13. Marshfield Door Systems, Inc.
14. Mohawk Flush Doors, Inc.; a Masonite Company.
15. Oshkosh Architectural Door Company.
16. Poncraft Door Company.
17. Vancouver Door Company.
18. VT Industries Inc.
19. Weyerhaeuser Company.
20. Frames – Hemlock double rabbet

2.2 DOOR CONSTRUCTION

A. Interior Veneer-Faced Solid-Core Doors:

1. Core: Solid Stave.
2. Construction: Five or seven plies. Stiles and rails are bonded to core, then, entire unit abrasive planed before veneering.
3. Construction: Seven plies, either bonded or non-bonded construction.
4. Birch Veneer

2.3 FABRICATION

A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.

B. Comply with requirements in NFPA 80 for fire-rated doors.

C. Factory machine doors for hardware that is not surface applied.

D. Openings: Cut and trim openings through doors in factory.

1. Light Openings: Trim openings with moldings of material and profile indicated.

2.4 FACTORY FINISHING

A. Finish doors at factory that are indicated to receive transparent finish. Field finish doors indicated to receive opaque finish.

B. Transparent Finish:

1. Grade: Premium.
2. Finish: WWDA I.S.1-A System TR-4 conversion varnish.
3. Finish: AWI System TR-4 conversion varnish.
4. Finish: WIC System #1c. Varnish.

5. Finish: Manufacturer's standard finish with performance comparable to AWI System TR-4 conversion varnish.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Hardware: For installation, see Division 08 - Openings, Section 087000 - Hardware.

B. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.

C. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels; do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.

D. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.

E. Factory-Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

END OF SECTION

SECTION 081613 - FIBERGLASS DOORS

PART 1 – GENERAL

1.1 SUMMARY

A. This Section Includes the Following:

1. Fiberglass Reinforced Plastic (FRP) Doors.
2. Fiberglass Resin Transfer Molded Door Frames.

1.2 RELATED SECTIONS

A. Related Sections Include The Following:

1. Section 087000 – Hardware.

1.3 QUALITY ASSURANCE

A. Qualifications

1. Manufacturer Qualifications: A company specialized in the manufacture of fiberglass reinforced plastic (FRP) doors and frames as specified herein with a minimum of 25 years documented experience and with a record of successful in-service performance for the applications as required for this Project.
2. Installer Qualifications: An experienced installer who has completed fiberglass door and frame installations similar in material, design, and extent to those indicated and whose Work has resulted in construction with a record of successful in-service performance.
3. Source Limitations: Obtain fiberglass reinforced plastic doors and frames through one source fabricated from a single manufacturer.
4. Source Limitations: Hardware and accessories for all FRP doors as specified in Section 087000 - Hardware should be provided and installed by the fiberglass door and frame manufacturer.

1.4 SUBMITTALS

A. Product Technical Data Including:

1. Acknowledgment that products submitted meet requirements of standards referenced.
2. Manufacturer shall provide certificate of compliance with current local and Federal regulations as it applies to the manufacturing process.
3. Manufacturer's installation instructions.
4. Schedule of doors and frames indicating the specific reference numbers as used on Drawings, door type, frame type, size, handing and applicable hardware.
5. Details of core and edge construction. Include factory-construction specifications.

6. Certification of manufacturer's qualifications.

B. Submittal Drawings For Customer Approval Shall Be Submitted Prior To Manufacture And Will Include The Following Information And Formatting:

1. Summary door schedule indicating the specific reference numbers as used on Owner's Drawings, with columns noting door type, frame type, size, handing, accessories, and hardware.
2. A Drawing depicting front and rear door elevations showing hardware with bill of material for each door.
3. Drawing showing dimensional location of each hardware item and size of each door.
4. Individual Part Drawing and specifications for each hardware item and FRP Part or product.
5. Construction and mounting detail for each frame type.

C. Operation and Maintenance Manuals:

1. Include recommended methods and frequency for maintaining optimum condition of fiberglass doors and frames under anticipated traffic and use conditions.
2. Include one set of final as-built Drawings with the same requirements as mentioned in subparagraph B above.
3. Include certificate of warranty for door and frame listing specific door registration numbers.
4. Include hardware data sheets and hardware manufacturer's warranties.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Each door and frame should be delivered individually crated for protection from damage in cardboard containers, clearly marked with Project information, door location, specific reference number as shown on Drawings, and shipping information. Each crate should contain all fasteners necessary for installation as well as complete installation instructions.

B. Doors should be stored in the original container out of inclement weather for protection against the elements.

C. Handle doors pursuant to the manufacturer's recommendations as posted on outside of crate.

1.6 WARRANTY

A. Warranty all fiberglass doors and frames for a period of 25 years against failure due to corrosion. Additionally, warranty all fiberglass doors and frames on materials and workmanship for a period of 10 years, including warp, separation or de-lamination, and expansion of the core.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
   1. Chem-Pruf, Brownsville, TX
   2. Corrim Company, Oshkosh, WI

2.2 FRP DOORS

A. Front Entrance Door: 1/3/4" x 7'-0" FGP fiberglass door with insulated tempered full glass lite.

B. Lobby to office entrance Door: 1 ¾" x 7'-0" GP fiberglass door with insulated tempered half glass lite.

2.3 FRP FRAMES

Use FRP knock down frames 6 3/4"

2.4 HARDWARE

A. See Section 087000 – Hardware.

B. The Contractor shall provide and deliver all related hardware to the door and frame manufacturer. All hardware must be installed by the door and frame manufacturer.

PART 3 – EXECUTION

3.1 INSTALLATION CONDITIONS

A. Verification of Conditions

   1. Openings are correctly prepared to receive doors and frames.
   2. Openings are correct size and depth in accordance with Shop Drawings or submittals.

B. Installer's Examination

   1. Have the installer examine conditions under which construction activities of this Section are to be performed and submit a written report if conditions are unacceptable.
   2. Transmit two copies of the installer's report to the Engineer within 24 hours of receipt.
   3. Beginning construction activities of this Section before unacceptable conditions have been corrected is prohibited.

3.2 INSTALLATION

A. Install door-opening assemblies in accordance with Shop Drawings and manufacturer's printed installation instructions, using installation methods and materials specified in installation instructions.

B. Field alteration of doors or frames to accommodate field conditions is strictly prohibited.

C. Site tolerances: Maintain plumb and level tolerance specified in manufacturer's printed installation instructions.

3.3 ADJUSTING

A. Adjust doors in accordance with door manufacturer's maintenance instructions to swing open and shut without binding and to remain in place at any angle without being moved by gravitational influence.

B. Adjust door hardware to operate correctly in accordance with hardware manufacturer's maintenance instructions.

3.4 CLEANING

A. Clean surfaces of door opening assemblies and exposed door hardware in accordance with respective manufacturer's maintenance instructions.

3.5 PROTECTION OF INSTALLED PRODUCTS

A. Protect door opening assemblies and door hardware from damage by subsequent construction activities until final inspection.

END OF SECTION

SECTION 085300 – PLASTIC WINDOWS

PART 1 - GENERAL

1.1 WORK IN THIS SECTION

A. Work in this Section includes all materials, labor, tools, and equipment required for the installation of the windows at the welcome center. Work includes but is not limited to following:

1. Shop fabricated Vinyl.
2. Glass and glazing, operating hardware and other accessories.
3. Configurations Including:

    a. Single Hung
    b. Picture Windows
    c. Slider Windows

1.2 WORK IN OTHER SECTIONS

A. Section 061000 - Rough Carpentry

B. Section 062000 - Finish Carpentry

C. Section 079200 - Joint Sealants

D. Section 099100 - Painting

1.3 REFERENCES

A. Windows shall comply with the requirements of AAMA 101-93 (American Architectural Manufacturer's Association).

B. Windows to meet performance standards for:

1. ASTM E 283 - Test method for infiltration rate of air leakage through exterior windows, curtain walls and doors under specified pressure differences across the specimen.
2. ASTM E 330 - Test method for structural performance of exterior windows and doors by uniform static air pressure differential.
3. ASTM E 547 - Test method for water penetration of exterior windows, curtain walls, and doors by cyclic static air pressure differential.

1.4 PERFORMANCE REQUIREMENTS

A. Testing standards for air infiltration, water penetration and structural performance: AAMA 101-93 for type of window configuration indicated.

B. Air infiltration: Maximum 0.32 CFM per foot of overall sash crack at inward test pressure of 1.57, ASTM E 283.

C. Water penetration: No water penetration at inward test pressure of 3.0 psf, ASTM E 547.

D. Structural performance: No glass breakage, damage to hardware, permanent deformation at positive and negative test pressure of 30.0 psi ASTM E 330.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's product specifications, technical support, installation and maintenance recommendations and standard details for each type of unit required, including finishing methods, hardware and accessories.

B. Product Drawings: For each type of window specified, submit standard assembly and details for lap siding, brick veneer, stucco and plywood sheathing. Include stacking bar details for any mulled windows or configurations.

C. Certification: Provide certification by a recognized, independent testing laboratory certifying that each required type of window complies with performance requirement indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Comply with manufacturer's instructions for protection of window units from damage.

B. Deliver in manufacturer's protective packaging.

1.7 QUALIFICATIONS

A. Manufacturer: Company experienced in manufacturing vinyl windows.

1.8 WARRANTY

A. Commercial

1. Provide manufacturer's standard warranty which agrees to repair or replace units that fail in workmanship for a period of ten years from the original date of purchase.
2. Warranty includes coverage of materials and labor in full by the manufacturer.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance of materials and requirements listed.

B. Milgard Vinyl Windows.

2.2 GLASS AND GLAZING

A. Provide the manufacturer's standard clear sealed insulating glazing material that complies with ASTM E 774 Class A and is at least 7/8" overall in thickness.

B. Factory exterior glazed except where field glazing is required due to large window unit dimensions. Units shall be reglazeable without dismantling sash framing.

2.3 HARDWARE

A. Provide the manufacturer's standard hardware fabricated from a non-corrosive material and of sufficient strength to perform its intended function. For application of hardware, use fasteners that match the finish of the hardware.

1. Single Hung Windows: Cam style locking mechanism.

2.4 ACCESSORIES

A. Weather-stripping: Operating sash members shall be weather-stripped with solt vinyl T-bulb weather-stripping or polypropylene fin seal weather-stripping depending on the window indicated.

B. Insect Screens: Provide insect screens for each operable exterior sash or ventilator. Locate screens on inside or outside of window sash or ventilator, depending on window type. Design windows and hardware to accommodate screens in a tight-fitting removable arrangement with a minimum of exposed fasteners and latches.

2.5 FABRICATION

A. Fabricate framing, mullions and sash members with mechanically joined, mitered, sealed corners and joints. Supplement frame sections at corners with structural hidden corner keys.

B. Glazing: Factory exterior glazed, except where field glazing is required due to window unit dimensions. Designed for easy replacement without dismantling sash framing.

C. Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.

D. Provide internal offset weepholes and channels to migrate moisture outside.

E. Prepare components to receive anchor devices.

F. Form weather stop flange to perimeter of unit.

G. Provide soft vinyl T-bulb or polypropylene fin seal weather-stripping.

H. Assemble insect screens to fully integrate with window frame. Frames to be manufactured of cambered aluminum and reinforced with rigid plastic corner keys. Screen mesh to fit taut in frame and secured.

2.6 FINISHES

A. Vinyl: High strength vinyl with White finish.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that wall openings and adjoining air and vapor seal materials are ready to receive Work of this Section.

3.2 INSTALLATION

A. Comply with manufacturer's specifications and recommendations for installation of window units, hardware, operators, accessories and other window components.

B. Windows shall be factory sized to fit in each framed opening so that they are 1/2" smaller than the framed opening to allow 1/4" clearance on all sides (tolerance +/- 1/16").

C. Opening panels must be closed and locked during installation. Windows must be installed level, plumb and square with 1/4" clearance on all sides and with weep holes at bottom in a weathertight manner.

D. Headers must not be nailed. Nail through fin into framing along sides and base. At the head, nails may be placed 1/2" above the fin and bent down over fin to allow for header deflection. Full support is required along entire length of sill.

E. Operating sash and hardware should fit tight at contact points.

3.3 CLEANING

A. Remove protective material from window unit.

B. Wash down surfaces with solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners. Wipe surfaces clean.

C. Do not use petroleum distillants.

END OF SECTION

SECTION 087000 – HARDWARE

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. Work includes all finish hardware, with suitable fastenings for complete Work, in accordance with the Drawings and specifications. Items not specifically mentioned, but necessary to complete the Work, shall be provided, matching in quality and finish the items specified.

1.2 RELATED WORK IN OTHER SECTIONS

A. Section 033000 – Cast-in-Place Concrete.

B. Section 061000 – Rough Carpentry.

C. Section 062000 – Finish Carpentry.

D. Section 081613 – Fiberglass Doors.

1.3 SUBMITTALS

A. Product Data: Submit catalog cut sheets for all finish hardware items.

B. Schedule: Prepare and submit a complete and detailed finish hardware schedule for each door opening.

1.4 SUPPLIER

A. Finish hardware shall be supplied by a recognized hardware distributor who has been furnishing hardware for a period of not less than 5 years.

B. The distributor's organization shall employ a qualified architectural hardware consultant, or equivalent, and locksmiths who are available at all reasonable times during the course of construction to meet with the Engineer and/or Contractor for hardware or keying consultation.

C. The supplier shall maintain a stock and parts inventory of all standard items supplied for future service to the Owner.

1.5 DELIVERY, STORAGE AND HANDLING

A. All items shall be delivered to the Project site in manufacture's original packaging. Mark each hardware item with description and installation location in accordance with approved hardware schedule. Store and protect all hardware from damage.

PART 2 - PRODUCTS

2.1 DOOR HARDWARE

A. Butt Hinges: Make: STANLEY, Stainless Steel

1. Finish: US 26D satin chrome.
2. Size: 4 1/2" x 4 1/2".
3. Type: BB 4101A, N.R.P.
4. Acceptable Subs: STANLEY, HAGER.

a. Exterior out swinging door shall have non-removable pin feature (set screw in barrel; pin non-removable when door is closed.)

b. Countertop shall have hinges on joints between two panels.

B. Locksets and Deadbolts:

1. Front Door (D1)

a. Deadbolt: Schlage B660 heavy duty double cylinder, standard solid brass 6-pin cylinder, with Satin Chrome finish. Exterior keyed, interior thumb turn.
b. Passage set: 8” exterior pull handle with plate, interior push plate, Satin Chrome finish.
c. Signage: “THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS” in 1” high contrasting letters.

2. Employee Entrance Door (D2)
a. Deadbolt: Schlage B660 heavy duty double cylinder, standard solid brass 6-pin cylinder, with Satin Chrome finish. Exterior keyed, interior thumb turn.
b. Lockset: Schlage ND10S RHO lever handle with Satin Chrome finish.
c. Signage: “EMPLOYEES ONLY” in 1” high contrasting letters.

3. Lobby to Office Door (D3)

a. Deadbolt: Schlage B660 heavy duty double cylinder, standard solid brass 6-pin cylinder, with Satin Chrome finish. Lobby side keyed, office side thumb turn.
b. Lockset: Schlage ND10S RHO lever handle with Satin Chrome finish.
c. Signage: “THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS” in 1” high contrasting letters.

4. Counter ½ Door (D4)

a. Lockset: Schlage ND10S RHO lever handle both sides.

5. Restroom Door (D5)

a. Lockset: Schlage AL series, exterior keyed lever, interior button, Satin Chrome finish.
b. Signage: Unisex placard set on wall adjacent to door. See plan sheet 7 for details.

6. Storage Door (D6)

    a. Lockset: Schlage AL series, exterior keyed lever, interior turn button, Satin Chrome finish.

C. Stops and Holders:

1.	Make:	BUILDERS BRASS WORKS
2.	Type:	BBW #245, TRIMCO #1255
3.	Finish:	626 (US 26D)
4.	Acceptable Subs:	GLYNN-JOHNSON, CIPCO

D. Door Closers:

1.	Make:	LCN
2.	Type:	Model 4110 - DEL, push side mounted closer with delay action feature. (ADA compliant)

E. Threshold:

1.	Make:	Pemko
2.	Finish:	Mill finish aluminum
3.	Model No.:	171A FHSL

F. Sweep:

1.	Make:	Pemko
2.	Finish:	Clear anodized aluminum
3.	Model No.:	18100CNB

G. Set Gasket:

1.	Make:	Pemko
2.	Finish:	Clear anodized aluminum
3.	Model No.:	S88D

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS

A. The Contractor shall be responsible for proper operation and fitting of under lock and key to store all finish hardware until installation is made. The hardware supplier shall mark each item of hardware as to description and location of installation in accordance with the approved hardware schedule.

B. Exposed surfaces of hardware shall be covered and well-protected during installation so as to avoid damage to finishes.

3.2 PROTECTION

A. The Contractor shall protect all exposed hardware surfaces during construction period from damage to products and finishes. Replace any damaged hardware items prior to final acceptance.

3.3 SPECIAL TOOLS

A. Provide special tools for installation and maintenance of hardware. Tools for maintenance and adjustment are to be delivered to the Owner upon completion of Work.

3.4 KEYING

A. All cylinder items shall be master-keyed into the Park Alike Group and grand-master-keyed. Provide one key for each lock. Keying information will be given to a licensed and bonded locksmith person only. The locksmith shall call Ryan Layton (509) 665-4313 to make keying arrangements.

3.5 INSPECTION AND ADJUSTMENT OF HARDWARE

A. Adjust all hardware to operate correctly. Factory representatives for door closers, exit bolts and locksets shall be available, if necessary, to instruct the Contractor on the proper method of installation of their materials. They shall inspect and adjust their materials at the completion of Work and supply proper maintenance information and manuals.

END OF SECTION

SECTION 092116 - GYPSUM BOARD ASSEMBLIES

PART 1 – GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Interior gypsum drywall for walls and ceilings for the welcome center.

1.2 SUBMITTALS

A. Product Data: For product indicated.

B. Samples: For each textured finish indicated and on same backing indicated for Work.

1.3 QUALITY ASSURANCE

A. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.

B. Mockups: Before finishing gypsum board assemblies, install mockups of at least 4 sq. ft. in surface area to demonstrate aesthetic effects and qualities of materials and execution.

1. Install mockups for the following applications:

a. Surfaces indicated to receive textured paint finishes.

2. Simulate finished lighting conditions for review of mockups.
3. Approved mockups may become Part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - PRODUCTS

2.1 PANEL PRODUCTS

A. Panel Size, General: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Gypsum Wallboard: ASTM C 36.

1. Type X 5/8 inch in thickness indicated and with long edges tapered.

2.2 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Bullnose Bead: Use at outside corners.

2.3 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475.

B. Joint Tape:

1. Interior Gypsum Wallboard: Paper.

C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
2. Embedding and First Coat: For embedding tape and first coat on joints, flanges of trim accessories, and fasteners, use all-purpose compound.

a. Use setting-type compound for installing paper-faced metal trim accessories.

3. Fill Coat: For second coat, use all-purpose compound.
4. Finish Coat: For third coat, use all-purpose compound.
5. Skim Coat: For final coat of Level 5 finish, use all-purpose compound.

2.4 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

2.5 TEXTURE FINISHES

A. Primer: As recommended by textured finish manufacturer.

1. Texture: Light-Orange Peel.

a. Walls.
b. Ceilings.

PART 3 - EXECUTION

3.1 PANEL PRODUCT INSTALLATION

A. Gypsum Board: Comply with ASTM C 840 and GA-216.

1. Space screws a maximum of 12 inches o.c. for vertical applications.
2. Space fasteners in panels that are tile substrates a maximum of 8 inches o.c.
3. On ceilings, apply gypsum panels before wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.
4. On partitions/walls, apply gypsum panels vertically (parallel to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.

    a. Stagger abutting end joints not less than one framing member in alternate courses of board.
    b. At high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly.

5. Single-Layer Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.2 FINISHING

A. Installing Trim Accessories: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

B. Finishing Gypsum Board Panels: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration.

1. Prefill open joints, rounded and damaged surface areas.
2. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.

C. Gypsum Board Finish Levels: Finish panels to levels indicated below, according to ASTM C 840, for locations indicated:

1. Level 3

3.3 APPLYING TEXTURE FINISHES

A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.

B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture matching approved mockup and free of starved spots or other evidence of thin application or of application patterns.

C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture finish manufacturer's written recommendations.

END OF SECTION

SECTION 096500 – RESILIENT FLOORING

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Solid vinyl floor for restroom and solid vinyl floor tile for lobby and office.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. LEED Submittals:

1. Product Data for Credit EQ 4.1: For adhesives, including printed statement of VOC content and chemical components.

C. Shop Drawings: For each type of floor tile and sheet vinyl. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

D. Samples: Full-size units of each color and pattern of floor tile and sheet vinyl required.

E. Maintenance data.

1.3 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

1.4 PROJECT CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer in spaces to receive floor tile.

B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer.

C. Close spaces to traffic during floor tile and sheet vinyl installation.

D. Close spaces to traffic for 48 hours after floor tile and sheet vinyl installation.

E. Install floor tile and sheet vinyl after other finishing operation, including painting, have been completed.

PART 2 - PRODUCTS

2.1 SOLID VINYL FLOOR TILE

A. Products: Subject to compliance with requirements, provide the following available products that may be incorporated into the Work include, but are not limited to the following:

1. Armstrong World Industries, Inc.

B. Tile Standard: Luxury Vinyl Tile.

1. Class: Class I, monolithic vinyl tile.
2. Type: Type A, embossed surface.

C. Thickness: 0.10 inch.

D. Size: 12 by 18 inches.

E. Colors and Patterns: As indicated by manufacturer's designations.

2.2 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by manufacturer to suit floor tile and substrate conditions indicated.

1. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 21.)

C. Integral-Flash-Cove-Base Accessories:

1. Cove Strip: 1-inch (25-mm) radius provided or approved by manufacturer.
2. Cap Strip: Square metal.
3. Corner: Metal inside and outside corners and end stops provided or approved by manufacturer.

D. Floor Polish: Provide protective liquid floor polish products as recommended by manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.

B. Concrete Substrates: Prepare according to ASTM F 710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
4. Moisture Testing: Perform tests recommended by floor covering manufacturer and as follows. Proceed with installation only after substrates pass testing.

    a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
    b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.

C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.

D. Do not install floor tiles or sheet vinyl until they are same temperature as space where they are to be installed at least 48 hours in advance of installation.

E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.2 FLOOR TILE INSTALLATION

A. Comply with manufacturer's written instructions for installing floor tile.

B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.

1. Lay tiles square with room axis.

C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

1. Lay tiles with grain running in one direction.

D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent, non-staining marking device.

G. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

H. Integral-Flash-Cove Base: Cove floor coverings 6 inches up vertical surfaces. Support floor coverings at horizontal and vertical junction by cove strip. Butt at top against cap strip.

1. Install metal corners at inside and outside corners.

3.3 CLEANING AND PROTECTION

A. Comply with manufacturer’s written instructions for cleaning and protection of floor tile and sheet vinyl.

B. Floor Polish: Remove soil, visible adhesive and surface blemishes from floor tile surfaces before applying liquid floor polish.

1. Apply three coats.

C. Cover floor tile and sheet vinyl until Substantial Completion.

END OF SECTION

SECTION 099100 – PAINTING

PART 1 - GENERAL

1.1 WORK IN THIS SECTION

A. This Section specifies painting interior and exterior surfaces of the building.

1.2 RELATED WORK IN OTHER SECTIONS

A. Section 062000 – Finish Carpentry

B. Division 8 – Openings

1.3 QUALITY ASSURANCE

A. Identification:

1. Paint shall be delivered to the Project in sealed containers that plainly show the designed product name, batch number, color, manufacture's directions, and manufacture's name; all of which shall be plainly legible at the time of use.

B. Removal of Unacceptable Paint:

1. At no expense to the State, the Contractor shall remove unacceptable paint and repaint to the satisfaction of the Engineer. Unacceptable paint is any that is improper, impure, or on metal not properly cleaned.

C. If the specified numbers of coats do not produce a finish acceptable to the Engineer the dry film thickness will be measured using suitable gauges. If the specified numbers of coats have not produced a combined dry film thickness of at least the sum of the thickness required per coat, the Contractor shall apply another full coat of finish paint.

1.4 MEASUREMENT AND PAYMENT

A. Payment for Work specified in this Section and shall include all labor, materials, tools, and equipment needed to complete all the Work under this Section. No other compensation will be made.

PART 2 - PRODUCTS

2.1 PRODUCTS

A. Exterior Welcome Center:

1.	Primer:	1 coat latex primer.
2.	Base (body):	Sherwin Williams, “Gateway Gray #2086”.
3.	Trim:	Sherwin Williams, “Bar Harbor #2272”.

B. Interior Welcome Center:

1.	Primer:	1 coat latex primer.
2.	Base:	2 coats interior latex enamel semi-gloss paint Parker Paint “Shell White” 5770W.
3.	Trim:	Semitransparent wood stain and finish coat.

2.2 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

PART 3 - EXECUTION

3.1 CLEANING, PREPARATION, and PRE-TREATMENT

A. Properly prepare all surfaces to receive specified or scheduled finishes. Application of first coat shall constitute acceptance of substrate by the painter.

B. All surfaces shall be free of grease, oil, dirt and other foreign matter before painting. Clean galvanized surface with solvent or use commercial pre-treatment solution as required by manufacturer's instructions.

C. Thoroughly clean all metal surfaces to the satisfaction of the Engineer using metal brushes, scrapers, or other means the Engineer requires to remove rust, scale, and dirt. Solvents may be used to remove oil and grease, and bristle or wood fiber brushes to remove loose dust.

3.2 PAINT FINISHES

A. Apply paint according to the manufacturer’s recommendations.

B. Apply one coat of primer paint and two coats of finish paint.

C. Each coat must be dry before the next coat is applied.

D. All field applied coats shall be brushed on in parallel strokes to leave a smooth, even coating that adheres closely to the metal or previous coat. On surfaces that cannot be brushed, painters

shall use sheepskin or other daubers approved by the Engineer.

E. Bolts, the edges of plates, angles, and other rolled shapes shall receive an extra heavy coating. Painters shall Work the paint well into all joints and crevices. All areas named in this paragraph shall be painted lightly just before general painting. This light coating shall be recoated when the general coat is applied.

F. Before it is removed from its containers, paint shall be stirred thoroughly by a mechanical mixer or other means. During application, it shall be stirred often enough to keep pigments in suspension.

G. Paint shall be shipped from the factory at brushing consistency. Unless the Engineer approves in writing, the Contractor shall not add thinner.

H. Paint thickness:

1. A full wet coat free from runs and sags produces the proper film thickness. Dry film thickness shall be between 0.15 and 0.25 mils per coat.

3.3 WEATHER CONDITIONS

A. Paint shall NOT be applied when:

1. The air and metal are cooler than 50 Degrees Fahrenheit.
2. Surfaces are damp or the air is misty.
3. The Engineer believes the conditions are unsuitable.
4. The metal is hot enough to cause the paint to blister and leave porous finish.

3.4 PROTECTION

A. All adjacent surfaces and Work of other trades shall be protected at all times with drop cloths, barricades, or other forms as necessary.

END OF SECTION

SECTION 099723 – CONCRETE SEALERS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes surface preparation and applied sealer for horizontal cast-in-place concrete surfaces.

B. Related Sections: Refer to the following specification sections for coordination.

1. Section 033000 - Cast-In-Place Concrete.

1.2 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions.

1.3 QUALITY ASSURANCE

A. Manufacturer: Minimum 10 years' experience producing concrete coatings.

B. Installer: Licensed installers experienced and trained in the use of specified products.

C. Suitability of Substrate: Concrete surface must be clean and dry with all stains, oil, grease, dust and dirt removed prior to application. A thorough pressure washing is highly recommended.

D. Regulatory Requirements: Comply with requirements of authorities having jurisdiction and applicable codes at the location of the project.

1.4 DELIVERY, STORAGE AND HANDLING

A. Deliver materials and products in unopened factory labeled packages. Protect from damage.

B. Store in a safe place, out of direct sunlight. Keep containers tightly sealed. Do not allow product to freeze. Use within manufacturer's recommended shelf life, approximately 12 months.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Concrete Sealer: High-performance, non-yellowing, clear acrylic-based sealer by Concrete Coatings Inc., 1105 North 1600 West, Layton, UT 84041, 800-443-2871, www.concretecoatingsinc.com. Provide the following:

1. Sealer with Gloss Finish: CCI GemKote 100, with 100 g/L VOC.
2. Sealer with Gloss Finish: CCI GemKote 350, with 350 g/L VOC.
3. Sealer with Gloss Finish: CCI GemKote 400, with 400 g/L VOC.
4. Sealer with Gloss Finish: CCI SuperSeal 2000, with 600 g/L VOC.
5. Sealer with Matte Finish: CCI GemKote 100-M, with 100 g/L VOC.
6. Sealer with Matte Finish: CCI GemKote 350-M, with 350 g/L VOC.
7. Sealer with Matte Finish: CCI GemKote 400-M, with 400 g/L VOC.
8. Sealer with Matte Finish: CCI SuperSeal 2000-M, with 600 g/L VOC.
9. Performance: Concrete sealers shall meet or exceed the following:

    a. Coverage: As recommended by manufacturer.
    b. Moisture Retention, Test ASTM C 309: 0.21 kg/m² at 200 ft² per gallon and 0.32 kg/m² at 300 ft² per gallon.
    c. Gasoline Resistance: Slight dulling after15-minute exposure (ponding).
    d. Tg: 50°C.
    e. Tukon Hardness: 30 minutes at 180°F, 9.3; 30 minutes at 300°F, 13.7.
    f. Pencil Hardness: 30 minutes at 180°F, F; 30 minutes at 300°F, H.
    g. Spray Conditions, Viscosity: 19 seconds, No. 2 Zhan cup.
    h. Abrasion Resistance: 160 mg lost, CS-17 wheel, 1000 g load, 1000 cycles.

PART 3 - EXECUTION

3.1 PREPARATION

A. Inspection: Prior to start of application, inspect existing conditions to ensure surfaces are suitable for installation including the following:

1. Concrete has cured for a minimum of 28 days prior to application of sealer.
2. Surface is completely free of sealers, oils, dirt, paint, alkali, penetrating sealers and foreign materials that would prevent the sealer from penetrating the concrete surface.
3. Concrete has been swept clean.
4. Test area has been approved.

3.2 APPLICATION

A. Concrete Sealer: Strictly comply with manufacturer's installation recommendations including the following. Latex System:

1. Apply after stain has dried at rate recommended by manufacturer.
2. Clean surface as recommended by the manufacturer.
3. All concrete flatwork designated as being sealed in the plans and specifications shall be sealed with 2-3 even coats of sealer, at the rate of approximately 150 to 200 square feet per gallon.

3.3 CLEANING AND PROTECTION

A. Protection: Do not cover but protect the floor area from paint and other contaminates that could inhibit the sealer.

END OF SECTION

SECTION 100600 – SCHEDULES FOR SPECIALTIES

PART 1 - GENERAL

1.1 WORK IN THIS SECTION

A. Work includes all labor, materials, equipment and services necessary to provide depository safes, grab bars, mirrors, shelves and related materials and Work as indicated on the plans.

1.2 WORK IN OTHER SECTIONS

A. Section 061000 – Rough Carpentry

1.3 SUBMITTALS

A. Submit product catalog cuts and manufacturer's technical data for all specialty items.

PART 2 - PRODUCTS

2.1 GRAB BARS

A. A.D.A. Toilet Compartments:

1. "American Specialties," 18 gauge type 304L stainless steel, 1 1/2” diameter, angle grab bars with concealed flanges, non-slip finish.

2.2 MIRROR

A. Glass with adhesive back.

2.3 TOILET TISSUE DISPENSERS

A. Furnished by Owner. Contractor shall install.

2.4 SANITARY NAPKIN RECEPTACLE

A. “American Specialties”, Polyethylene receptacle, wall mount. McMaster-Carr #2866K51, or similar.

2.5 DEPOSITORY SAFE

A. AMSEC's BWB series Depository safe, Model No. BWB3020-FL. www.amsecusa.com/safe-b-rate-wide-body.htm

2.6 SECURITY CAMERA

A. Provide complete security camera systems.

B. Exterior camera shall be weatherproof vandal-proof system.

2.7 SECURITY SYSTEM

A. Provide a complete security system.

B. All operable doors and windows shall be hardwired.

C. All hallways shall have motion detections sensors.

2.8 MAIL SLOT

A. Provide "Protex Safe WDC-160 with Adjustable Chute"

2.9 TOWEL DISPENSER SHOP

A. Shop: Use Georgia Pacific "SofPull"

2.10 FIRE EXTINGUISHER FOR LOBBY AND OFFICE

A. Provide "Larson's Fire extinguisher cabinet 2409-R7, Anodized Aluminum with glass door and Buckeye 10ABC TALL extinguishers.

PART 3 - EXECUTION

3.1 GRAB BARS

A. Install grab bars in accordance with the manufacturer's recommendations. All parts shall be installed straight, level and plumb. All grab bars shall be installed in accordance with drawing above finished floor, with a clearance of 1 1/2" between finished wall surface and inner edge of the tubing. Provide blocking in wall for all grab bars.

B. No evidence of drilling, cutting or patching shall be visible in the finished Work. All grab bars shall be able to withstand a downward pull of 300 pounds minimum.

3.2 MIRROR

A. Install in accordance with manufacturer's recommendations.

3.3 TOILET TISSUE DISPENSER AND NAPKIN RECEPTACLES

A. Install on walls/toilet partitions with vandal proof hardware at the locations indicated, or where directed by the Engineer. Tissue dispensers shall be located such that tissue roll is at 19" (min.) above finished floor and at approximately 12" in front of toilet.

B. Napkin waste receptacles shall be mounted with top of unit approximately 4” below grab bar and immediately to right or left of toilet.

3.4 RESTROOM SIGNS

A. Install in accordance with drawings and all ADA regulations.

3.5 DEPOSITORY SAFES

A. Install in accordance with manufacturer's recommendations.

3.6 SECURITY CAMERA

A. Install in accordance with manufacturer’s recommendations.

3.7 SECURITY SYSTEM

A. Install in accordance with manufacturer’s recommendations.

END OF SECTION

SECTION 122113 - HORIZONTAL LOUVER BLINDS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Horizontal louver mini blinds with aluminum slats.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 HORIZONTAL LOUVER BLINDS, ALUMINUM SLATS

A. Products: Subject to compliance with requirements, provide one of the following:

1. Hunter Douglas.
2. Levolor, a Newell Rubbermaid Company.

B. Slats: Aluminum; alloy and temper recommended by producer for type of use and finish indicated; with crowned profile and radiused corners.

1. Width: 1 inch.
2. Finish: One color selected by Engineer from Manufacturer’s standard colors.

a. Ionized Coating: Antistatic, dust-repellent, baked polyester finish.
b. Reflective Coating: Manufacturer's special coating enhancing the reflection of solar energy on the outside-facing slat surface.

C. Headrail: Formed steel or extruded aluminum; long edges returned or rolled; fully enclosing operating mechanisms on three sides and end plugs.

D. Bottom Rail: Formed-steel or extruded-aluminum tube, with plastic or metal capped ends.

E. Ladders: Evenly spaced to prevent long-term slat sag.

1. For Blinds with Nominal Slat Width 1 Inch or less: Braided string.

F. Lift Cords: Manufacturer's standard.

G. Tilt Control: Enclosed worm-gear mechanism, slip clutch or detachable wand preventing over rotation, and linkage rod.

H. Lift Operation: Manual.

I. Valance: Manufacturer's standard.

J. Mounting: End mounting.

K. Hold-Down Brackets and Hooks or Pins: Manufacturer's standard.

L. Side Channels and Perimeter Light Gap Seals: Manufacturer's standard.

M. Colors, Textures, Patterns, and Gloss: As selected by Owner from manufacturer's full range.

2.2 HORIZONTAL LOUVER BLIND FABRICATION

A. Concealed Components: Non-corrodible or corrosion-resistant-coated materials.

1. Lift-and-Tilt Mechanisms: With permanently lubricated moving parts.

B. Unit Sizes: Obtain units fabricated in sizes to fill window and other openings as follows:

1. Blind Units Installed between (inside) Jambs: Width equal to 1/4 inch per side or 1/2 inch total, plus or minus 1/8 inch, less than jamb-to-jamb dimension of opening in which each blind is installed. Length equal to 1/4 inch, plus or minus 1/8 inch, less than head-to-sill dimension of opening in which each blind is installed.
2. Blind Units Installed outside Jambs: Width and length as indicated, with terminations between blinds of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.

C. Installation Brackets: Designed for easy removal and reinstallation of blind, for supporting headrail, valance, and operating hardware, and for hardware position and blind mounting method indicated.

D. Installation Fasteners: No fewer than two fasteners per bracket, fabricated from metal noncorrosive to blind hardware and adjoining construction; type designed for securing to supporting substrate; and supporting blinds and accessories under conditions of normal use.

E. Color-Coated Finish:

1. Metal: For components exposed to view, apply manufacturer's standard baked finish.

F. Component Color: Provide rails, cords, ladders, and exposed-to-view metal, and plastic matching or coordinating with slat color, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install horizontal louver blinds level and plumb and aligned with adjacent units according to manufacturer's written instructions, and located so exterior slat edges in any position are not closer than 1 inch to interior face of glass. Install intermediate support as required to prevent deflection in headrail. Allow clearances between adjacent blinds and for operating glazed opening's operation hardware if any.

B. Flush Mounted: Install horizontal louver blinds with slat edges flush with finish face of opening if slats are tilted open.

C. Jamb Mounted: Install headrail flush with face of opening jamb and head.

D. Head Mounted: Install headrail on face of opening head.

E. Recessed: Install headrail concealed within blind pocket.

F. Adjust horizontal louver blinds to operate smoothly, easily, safely, and free of binding or malfunction throughout entire operational range.

G. Clean horizontal louver blind surfaces after installation, according to manufacturer's written instructions.

END OF SECTION

SECTION 123223 – CABINETS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included: Provide all labor, materials (unless noted as furnished by Owner) and equipment to furnish and install the following:

1. Cabinets
2. All other items noted on the plans

1.2 QUALITY ASSURANCE

A. All specialty cabinetry shall be built by persons having at least two years' experience building architectural casework for similar projects.

1.3 SUBMITTALS

A. Submit the following for all products:

1. Provide color samples for approval by engineer
2. Provide laminate samples for approval by engineer

PART 2 - PRODUCTS

2.1 GENERAL

A. Comply with Specifications and manufacturer's data of material specified on plans.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify installation conditions as satisfactory to receive work of this Section. Do not install until unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions as satisfactory. Verify location with Owner, prior to installation.

3.2 INSTALLATION

A. Protect site furnishings from scratches, dents or other damage during handling and installation.

B. Install all equipment and site furniture in accordance with Specifications, Drawings and manufacturer's directions. Where these may be in conflict, the more stringent requirements govern.

END OF SECTION

SECTION 129300 – SITE FURNISHINGS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included: Provide all labor, materials and equipment to furnish and install the following:

1. Fixed Bollards
2. All other items noted on the plans

1.2 QUALITY ASSURANCE

A. Manufacturer's Instructions: Adhere to manufacturer's instructions for product handling, installation and operations.

1.3 SUBMITTALS

A. Submit the following for all products:

1. Manufacturer's product data
2. Manufacturer's installation instructions

PART 2 - PRODUCTS

2.1 GENERAL

A. Comply with Specifications and manufacturer's data. Where these may be in conflict, the more stringent requirements govern.

2.2 FIXED BOLLARD

A. Fix Bollard:

1. H.S. steel tube, galvanized and as per the Drawings.
2. See drawings for installation.

B. Removable Bollard:

1. Removable bollard, as per typical State Parks standard.
2. See welcome center drawings for installation.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify installation conditions as satisfactory to receive work of this Section. Do not install until unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions as satisfactory. Verify location with Owner, prior to installation.

3.2 INSTALLATION

A. Protect site furnishings from scratches, dents or other damage during handling and installation.

B. Install all equipment and site furniture in accordance with Specifications, Drawings and manufacturer's directions. Where these may be in conflict, the more stringent requirements govern.

END OF SECTION

SECTION 220000 – PLUMBING

PART 1 – GENERAL

1.1 SUMMARY

A. Base Bid: This Section includes providing all materials necessary to make the connection from the existing waterline to the welcome center. All stub-up shall be thru the slab or thickened edge as shown on the drawing.

B. This Section includes providing all plumbing fixtures for the building as described hereinafter and/or as shown on the drawing and includes, but is not limited to the following:

1. Domestic cold water system.
2. Domestic hot water system.
3. Waste and vent system.
4. Plumbing fixtures.

C. Related Sections:

1. Section 033000 – Cast-in-Place Concrete.
2. Section 061000 – Rough Carpentry.
3. Section 223313 – Instantaneous Electric Domestic Water Heaters.

1.2 QUALITY ASSURANCE

A. Regulatory Requirements

1. Comply with provisions of the Uniform Plumbing Code, latest edition. Install all Work in accordance with standards, prescribed by local and/or State codes.

PART 2 – PRODUCTS

2.1 DOMESTIC WATER SYSTEM PIPING/TUBING

A. All aboveground piping shall be PEX Type A, B or C, that complies with ASTM F-875 and ASTM F-877, or copper tubing, Type K or L that complies with ASTM B-88.

1. Use PEX pipe in straight 20’ lengths color in order to maintain a straight and clean appearance of all exposed pipe.
2. Use PEX pipe color code for cold and hot water installations.

a. Blue for cold water.
b. Red for hot water.

2.2 FITTINGS AND UNIONS

A. All fittings shall be as follows:

1. For PEX pipe use cold expansion polymer fittings with PEX reinforcement rings that complies with ASTM F-1960, cold expansion metal fitting with PEX reinforcement rings that complies with ASTM F-1960.
2. For copper pipe use Type M, hard drawn fittings for solder or brazed connections.

B. Unions to be of same size and type as pipe being joined. Provide unions where specified in the plans and at all valves, meters, equipment, etc., to accommodate removal and replacement of all equipment. Steel unions shall be galvanized and provide dielectric break unions where connections of dissimilar metal piping occur.

2.3 CHECK VALVES

A. Horizontal check, regrinding type, full bronze including trim, threaded connections.

2.4 BALL VALVE

A. Bronze body and trim, full port three piece construction, burna-N ring seal, operating handle nut to be stainless steel, operating torque at rated pressure to be 25 foot-pounds or less, threaded connections.

2.5 GATE VALVES (INTERIOR BUILDING)

A. 125 psi, cold water rated, iron body, bronze or brass mounted, double disc, inside screw, rising stems as manufactured by RED-WHITE, JENKINS, or CRANE. Provide shut-off valve at each fixture supply line to allow shutoff of individual fixtures. Size valves to match pipe size.

2.6 ESCUTCHEONS

A. Escutcheons shall be provided on all exposed piping passing through floors, walls, and ceilings, and sized to fit the pipe, or, if insulated, to fit the insulation. Deep escutcheons shall be used where the sleeve and/or fittings extend past to the finished surface. Escutcheons 2” and smaller shall be plastic.

2.7 LAVATORY AND ASSOCIATED PARTS

A. Lavatories shall be KOHLER “Greenwich” Model K1721, wall mounted vitreous china lavatory.

1. Provide concealed arm carriers at each lavatory.
2. Color: White

B. P-trap to be KOHLER K-8998 polished chrome with 1-1/4” OD inlet and 1-1/4” OD outlet.

2.8 WATER CLOSET

A. Toilet: Toilet shall be TOTO DRAKE two piece elongated toilet CST744SL-white. The elongated bowl shall be 12" rough-in. Toilet shall be made of vitreous china. Toilet shall be 1.6 gpf. ADA compliant with 16-1/2" high bowl.

B. Seat: Seats shall be white, split front, plastic. Brevia seat with cover.

2.9 LAVATORY FAUCET

A. Lavatory faucet shall be T & S Brass and Bronze Works, Inc., Model B-0805 Series.

B. Angle Stops: KOHLER K-7607 polished chrome angle supply and stop (loose key type.)

C. Drain & Trap: KOHLER K-13885 offset drain with open strainer (13"). KOHLER, cast brass adjustable "P" trap with tubing outlet, under sink protectors, and cleanout plug as shown on Drawings detail.

PART 3 – EXECUTION

3.1 GENERAL

A. Drawings are diagrammatic, and not intended to show in detail all features of Work. Take measurements. Do all cutting on the job. Drawings do not attempt to show exact details of all piping. No extra payments allowed where obstructions in Work of other trades or Work under this Contract require off sets in piping. Check locations of piping to determine that it clears all openings and structural members, that it may be properly concealed, and that it clears lighting fixtures and plumbing fixtures having fixed locations. Take all working measurements from building. Verify against those shown on Drawings. If they are found to vary from the latter, report same to the Engineer at once for drawing adjustments before proceeding with the Work.

3.2 PIPING METHODS

A. Piping shall be installed parallel to walls and risers and shall be straight and plumb. Piping in finished areas shall be concealed except as noted otherwise and except for runouts in local connections. Piping shall be carefully laid out and installed to allow sufficient space for installation and maintenance of the system. All domestic hot and cold water piping shall be graded so that it can be drained through a fixture or hose bibb, including all down loops. All drainage and waste lines shall be sloped as required by code or a minimum of 1/8" per foot, whichever is greater or as otherwise shown on the Drawings. All piping, including waste and vent piping, shall be installed to allow provisions for expansion and contraction and shall have approved anchoring.

1. Pipe joint (threaded)

a. All changes in size shall be made with reducing fittings. No bushings shall be used. All joints shall be tight and piping reamed to full size to insure smooth flow. All joints to be made with compatible materials per applicable codes. Pipe nipples with the unthreaded Section 1" or less in length shall be cut from extra heavy pipe. Close nipples shall not be used. All changes in direction shall be made with fittings and no pipe bending will be permitted except for soft temper copper. Ream each end of steel or wrought iron pipe for screwed joint connections to full pipe diameter. Remove all burrs on copper tubing. Fittings shall comply with ASA dimensions and shall be galvanized where specified with the respective system. Street elbows shall not be used. Ells shall be long radius.

2. Pipe joints (soldered)

a. All copper tubing used in domestic water systems shall be assembled with SIL FOS or equal silver base hard solder sweat fittings except connections to valves and controls shall be made with 95/5 tin-antimony solder. All joints between copper and iron or steel shall be made with EPCO, or equal, dielectric unions.

3.3 SLEEVES

A. Sleeves of black steel to be provided where pipes pass through masonry walls or concrete floors. Where seepage is likely to occur, pipe sleeves to be caulked. Sleeves through floors subject to water shall project 1/2" above finished floor. After pipe has been installed, fill area around pipe with mastic.

3.4 PLATES

A. All piping passing through finished walls, floors, and ceilings shall be fitted with nickel or chrome-plated plates, set with screws for holding plate in position.

3.5 CLEANOUTS

A. Provide cleanouts at base of each soil and waste stack, at changes in direction of piping, at intervals of not over 50' in straight lines, and elsewhere as may be required. Cleanouts shall be of the same size as the pipe. The cleanouts shall be located in accessible locations. Check all mechanic apparatus for location prior to installing. Floor cleanouts shall have flush brass cleanout plate. Exposed floor area cleanouts made absolutely flush with finished floor without any projection.

3.6 FLASHING

A. On steel roofs, all pipes penetrating the roof shall pass through pipe flashing jacks. See Division 07-Thermal & Moisture Protection, Section 074113 – Metal Roof Panels.

3.7 TESTING

A. Domestic water lines

1. Test all hot and cold water pipe lines for leaks at a minimum pressure of 125 psi for 1 hour. All pipe, valves, fittings, and tanks shall be water tight under the test. Repair any leaks and repeat tests until system is water tight. Make final test in presence of the Engineer. All pressure lines shall be under working pressure at the time of final

B. Drainage lines

1. All drainage lines shall be tested with water or air pressure of not less than 5 pounds per square inch for 15 minutes with no loss in pressure and shall be witnessed by the Engineer. Repair any leaks and repeat rest until the lines pass the test requirements.

3.8 FUMIGATION (DOMESTIC WATER LINES)

A. Before putting system into service, disinfect all portions of the domestic water system with a dosage of 50 parts chlorine per million parts of water. Flush sections of the system to be disinfected at adequate velocity to remove solids and contaminated materials. Introduce chlorine mixture into the system in such a manner which will ensure uniform distribution. Retain the mixture in the system for a minimum of 24 hours. Following chlorination, thoroughly flush system until no chlorine can be detected.

END OF SECTION

SECTION 221300 – FACILITY SANITARY SEWAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General Conditions and Division No. 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

A. Sanitary Sewage Systems: This Section includes but is not limited to the following:

1. Sanitary sewage system piping and appurtenances from a point 5 feet outside the building to the point of utility connection including trenching and backfill.
2. Lift Station.

B. Key Abbreviations: The following Abbreviations apply to this Section:

1. ILM Identification Line Marker.
2. PA Pumping Assembly.
3. PVC Polyvinyl Chloride.

C. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 31 - Earthwork for materials and methods of trench excavation and backfill made a Part of this Section.

1.3 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Firms regularly engaged in manufacture of sanitary sewage system's products of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

B. Code Compliance: Comply with applicable portions of Uniform Plumbing Code, the State Department of Ecology criteria for Sewage Works Design and the current edition of standard specifications for Road, Bridge, And Municipal Construction published by the Washington State Department of Transportation and the American Public Works Association of Washington pertaining to selection and installation of sanitary sewage system's materials and products.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's technical information, specifications, installation instructions, certifications, and other data to show compliance with these Contract Specifications. Submit for pipe, fittings, cleanouts, locator tape, and pump station equipment.

B. As-Built Drawings: At Project closeout, submit record Drawings of installed sanitary sewage piping and products, in accordance with requirements of Division 1.

C. Maintenance Data: Submit maintenance data and parts lists for sanitary sewage system materials and products. Include this data, Shop Drawings, and record Drawings in maintenance manual; in accordance with requirements of Division 1.

D. O&M Manual: Contractor to include in Operation & Maintenance Manual, complete information regarding manufacturer's technical information, specifications, installation instructions, maintenance/repair information, certifications, and all other pertinent data regarding all pipe, fittings, fabric, and valve boxes detailed in this Section. Reference Specification Section 013300 – Submittal Procedures for additional requirements for this Work item.

E. Describe completely the function of each system and its sequence of operation. Manufacturer's data sheets are helpful but are not sufficient in themselves. O&M manual shall instruct the park manager as to function, operation, maintenance and adjustment of each piece of equipment and each system provided at the conclusion of the job.

PART 2 - PRODUCTS

2.1 IDENTIFICATION LINE MARKER (ILM)

A. The Contractor shall provide minimum 2" wide green plastic warning tape with a metallic foil core for each underground sewer line. This tape shall run continuous from terminal to terminal without splices. The tape shall be capable of being located by a pipe finder and carry a signal of a pipe locating device. This tape shall be similar to the TERRA TAPE "D" or equal. Printing on the warning tape shall read: "CAUTION: SEWERLINE BURIED BELOW".

B. In addition to the marker tape, each sewer line shall have a 12 gauge copper locator wire.

C. Manufacturer: Subject to compliance with requirements, provide identification markers of one of the following:

1. Allen systems, Inc.
2. EMED Co., Inc.
3. Seton Name Plate Corp.
4. Or approved equal.

2.2 PIPES AND PIPE FITTINGS

A. General: Provide pipes of one of the following materials, of weight/class indicated. Provide pipe fittings and accessories of same material and weight/class as pipes, with joining method as indicated.

B. Polyvinyl Chloride Sewer Pipe (PVC): SDR 35, ASTM D 3034, and ASTM D 1784.

C. Fittings: PVC, ASTM D 3034, elastomeric joints complying with ASTM D 3212 using elastomeric seals complying with ASTM F 477.

2.3 LIFT STATION

A. Provide Liberty Pro Series Model 370 XB with Liberty 18" Riser. Provide pump controls, panel and alarm.

PART 3 - EXECUTION

3.1 INSTALLATION OF IDENTIFICATION LINE MARKER

A. During back-filling/top-soiling of sanitary sewage systems, install continuous underground-type plastic line marker, located directly over buried line at 6 inches to 8 inches below finished grade.

3.2 INSTALLATION OF PVC PIPE AND PIPE FITTINGS

A. Install piping in accordance with governing authorities having jurisdiction, except where more stringent requirements are indicated, within these specifications.

B. Inspect piping before installation to detect apparent defects. Mark defective materials with white paint and promptly remove from site.

C. Lay piping beginning at low point of system, true to grades and alignment indicated, with unbroken continuity of invert.

D. Place bell ends or groove ends of piping facing upstream.

E. Install gaskets in accordance with manufacturer's recommendations for use of lubricants, cements, and other special installation requirements.

F. PVC Pipe: Install in accordance with manufacturer's installation recommendations, and in accordance with ASTM D 2321. Pipe bedding shall be 3/8 inch minus pea gravel, minimum sand equivalent 50.

G. Cleaning Piping: Clear interior of piping of dirt and other superfluous material as Work progresses. Maintain swab or drag in line and pull past each joint as it is completed. Place plugs in ends of uncompleted conduit at end of day or whenever Work stops.

H. Flush lines between manholes if required to remove collected debris.

I. Joint Adapters: Make joints between types of pipe with standard manufactured adapters and fittings intended for that purpose. Connection to manholes when using PVC, sewer pipe shall be made with PVC manhole adapters.

J. Trenching and Backfill: Trenching and backfill for construction of the sanitary sewer is specified in Division 31-Earthwork.

3.4 TAP CONNECTIONS

A. Make connections to existing piping and underground structures, so that finished Work will conform as nearly as practicable to requirements specified for new Work.

3.5 BACKFILLING

A. Conduct backfill operations of open-cut trenches closely following laying, jointing, and bedding of pipe, and after initial inspection and testing are completed. To minimize local area traffic interruptions, allow no more than 100 feet between pipe laying and point to complete backfilling.

3.6 TESTING PRESSURE SEWERS FOR ACCEPTANCE

A. Preparation for Testing

1. The Contractor shall flush out all pipe sections to be tested with clean water prior to commencing any pressure testing.

B. Pressure Test Method

1. All pressure pipe systems shall be hydrostatical tested for leaks at a pressure of 25 psi for a period of two hours. Pressure loss in excess or 5 psi during the two-hour test period shall be cause for rejection. Once the pipe system is brought up to test pressure and the test begun, no additional pressurization is allowed for the test duration. Test pressure shall be measured at the highest point in the pipe system tested. The system shall be isolated by capping and/or with closed valves. All pipe, valves, fittings, etc., shall be watertight under the test pressure for the full duration of the test.
2. Any leakage caused by defective workmanship or materials shall be repaired and the line shall again be tested to full compliance at the Contractor's expense. The test pressure shall be applied at the low end of the Section of pipe being tested. Air in the pipe shall be vented at all high points.
3. All field equipment for testing as above described shall be furnished and operated by the Contractor, subject to approval by Engineer. Precautions shall be taken to prevent any damage caused by cleaning and testing. Any damage resulting shall be repaired by the Contractor at his own expense.

C. Preliminary Tests

1. The Contractor shall conduct preliminary tests and assure himself that the Section to be tested is in an acceptable condition before requesting the Engineer to witness the test.

3.7 UTILITY CROSSINGS

A. Where crossings are required with domestic water and sanitary sewer lines, no joint shall be laid closer to the crossing than 1/2 the length of a standard length of pipe, and where practical at the crossing, there shall be a 36" vertical separation. Where a 36" vertical separation between the lines cannot be maintained, the drainline shall be inserted into a 20' length of 4" class 160 PVC water pipe, which will act as a protective "conduit" and keep the exposed drainline joints 10 feet away from the crossed line. The drainline shall be cut as necessary to place a joint at the ends of the conduit, not inside. Where the necessary length of conduit is more than 20 feet, the Contractor shall glue "bridging" pieces to the sewer pipe to prevent sag in the line.

3.8 FIELD QUALITY CONTROL

A. Testing: Perform testing of completed piping in accordance with local authorities having jurisdiction and/or APWA Standards.

END OF SECTION

SECTION 223313 – INSTANTANEOUS ELECTRIC DOMESTIC WATER HEATERS

PART 1 - GENERAL

1.1 WORK IN THIS SECTION

A. Work includes instantaneous water heaters including complete wall mounting, hot and cold water piping hookup, and related items of Work.

1.2 WORK IN OTHER SECTIONS

A. Section 220000 - Plumbing

B. Section 221300 – Facility Sanitary Sewage

1.3 SUBMITTALS

A. Product Data: Submit water heater manufacturer's product data, catalogs, specifications, and detailed installations instructions.

PART 2 - PRODUCTS

2.1 WATER HEATERS

A. Electric instantaneous water heater shall be Powerstream Model RP7 Water Heater shall have an adjustable heat setting selector. Heater shall be 240 volts, 15 amps.

PART 3 - EXECUTION

3.1 WATER HEATER INSTALLATION

A. Install water heaters in strict accordance with manufacturer's instructions and recommendations, UPC requirements, and the plans.

B. Make all hot and cold water piping and electrical connections to each water heater unit following manufacturer's instructions and plumbing code standards.

C. Ensure tight leak free connections, joints, fittings, and valves. Test all fittings and joints for leaks per UPC standard practices for water piping.

3.2 START-UP AND OPERATION

A. Following testing, inspection and approval of completed water heater installations, perform fill, start-up and operation procedures for heater to demonstrate proper operation and performance in the presence of the Engineer. Correct any/all deficiencies or problems encountered, to the satisfaction of the Engineer.

B. Follow manufacturer's fill, start-up and operating instructions.

3.3 MANUFACTURER'S LITERATURE

A. Encase a copy of the manufacturer's literature in plastic and attach to water heater for future reference.

END OF SECTION

SECTION 235700 – HEAT EXCHANGERS FOR HVAC

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers all materials, labor, tools, and design services to provide a heating and air conditioning system for the welcome center building as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.2 INTENT OF DRAWINGS

A. Drawings are diagrammatic, not intended to show in detail all features of Work. Take measurements, do all cutting on the job. Drawings do not attempt to show exact details. No extra payments allowed where obstructions in Work of other trades or Work under this Contract require offsets in piping. Check locations of piping to determine that it clears all openings, and structural members; that it may be properly concealed; that it clears lighting fixtures and plumbing fixtures having fixed locations. Take all working measurements from building, check with those shown on Drawings; if they are found to vary from the latter, report same to the Engineer at once for adjustments before proceeding with Work.

1.3 MECHANICAL DESIGN

A. The mechanical Contractor shall be responsible for verification of building heat load requirements and shall prepare and furnish detailed heating load calculations.

B. The Contractor shall also be responsible for preparing detailed designs for the air conditioning and heat pump installations.

C. All mechanical design shall be in accordance with Washington State Energy and Mechanical Codes.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product data, specifications, catalogues, and detailed installation and maintenance instructions.

B. Shop Drawings: The mechanical Contractor shall prepare, or have prepared by a licensed heating system provider, complete heating system layout and sizing Shop Drawings. Drawings shall include duct layout, locations, sizing, furnace details, and related pertinent design information. All Drawings shall be reviewed and approved by the Engineer prior to system fabrication/installation.

C. O&M Manual: Contractor to include in the Operation & Maintenance Manual, complete information regarding manufacturer's product data, function, Shop Drawings, installation and maintenance instructions for each piece of mechanical equipment and/or mechanical system detailed in this Section.

D. Describe completely the function of each system and its sequence of operation. Manufacturer's data sheets are helpful but are not sufficient in themselves. Instruct the park manager as to function, operation, maintenance and adjustment of each piece of equipment and each system provided at conclusion of job.

1.5 TESTS AND INSPECTIONS

A. Schedule, obtain and pay for all fees and/or services required by local authorities and these specifications to test the mechanical systems.

B. Immediately correct all deficiencies which are evidenced during testing and repeat tests until system is approved. Do not cover or conceal piping, equipment or other portions of the mechanical Work until satisfactory tests are made and approved.

C. Upon request by the Engineer, place the entire mechanical installation and/or any portion thereof, in operation to demonstrate satisfactory operation.

1.6 PERMITS

A. The Contractor shall familiarize himself with all requirements as to permits. Procure and pay for all required permits.

PART 2 - PRODUCTS

2.1 HEAT PUMP AND AIR HANDLER

A. Provide Gen 3 Climate 5000 PRO PACK 2-Zone 18,000 BTU 1.5 Ton Ductless Mini Split Air Conditioner with Heat Pump 230-Volt**.**

2.2 THERMOSTAT

A. Thermostat shall be a Programmable Thermostat Series as required for the HVAC unit.

PART 3 - EXECUTION

3.1 HEAT PUMP AND CONTROLS

A. Contractor shall provide heat pump systems.

B Contractor shall install all equipment per manufacturer's instructions.

C. The air handler units will be mounted as shown in the drawings.

D. The Contractor shall provide thermostats (to be located at a site to be determined by the Engineer) and all necessary components for operation of the equipment in accordance with manufacturer's instructions.

3.2 START-UP AND OPERATION

A. Following testing, inspection and approval of completed installations perform start-up and operation procedures for heating systems to demonstrate proper operation and performance in the presence of the Engineer. Correct any/all deficiencies or problems encountered, to the satisfaction of the Engineer.

B. Follow manufacturer's fill, start-up and operating instructions.

END OF SECTION

SECTION 260000 – ELECTRICAL

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers all electrical Work for the Welcome Center.

B. Provide all labor, materials, and tools and pay all costs necessary to provide a complete installation in complete operating condition, using the best workmanship and construction practices.

C. Provide complete building electrical systems and related Work as indicated in the Drawings and specifications or as reasonably implied thereby, with only such exception as specifically set forth herein or in the Contract documents.

1.2 DRAWINGS

A. Electrical system Drawings are diagrammatic and do not necessarily show exact locations of conduit, ducts, and equipment unless specifically dimensioned.

B. Riser and other diagrams are schematic only and do not necessarily show exact physical arrangement of equipment. Diagrams must not be used for obtaining linear runs of wiring or conduit.

C. Electrical Drawings do not attempt to show complete details of building construction which affect the electrical installation. Refer to architectural, structural, and mechanical Drawings for additional details which affect proper installation of this Work.

D. Arrange the runs of conduit and duct to avoid interference with or obstruction of diffusers, registers, grilles, or other items of equipment with fixed locations.

E. Include the standard installation instructions for each item of equipment furnished under this Division as an integral Part of the Project plans and specifications. The details of installation are to conform thereto.

1.3 DRAWINGS AND SPECIFICATIONS, DEFINITIONS, AND ABBREVIATIONS

A. “ETC” means Electrical Trades Contractor.

B. “MTC” means Mechanical Trades Contractor.

1.4 DRAWINGS AND SPECIFICATIONS INTENT

A. These specifications are intended to cover the complete installation of electrical systems. The omission of expressed reference to any item of labor or materials necessary for the proper execution of the Work in accordance with present practice of trade does not relieve the Contractor from providing such additional labor or material.

1.5 COOPERATION

A. Cooperate completely with other trades in the matter of planning and execution of Work. Make every reasonable effort to prevent conflict or inference as to space requirements, dimensions, locations, openings, sleeving, and other matters which tend to delay or obstruct Work of any trade.

1.6 LABELS

A. Provide primer on all equipment and materials that are to be finished/painted by others. ETC shall provide labels, black laminate plastic with white background for all panels, switches, control, and other items where manual operation and maintenance occurs.
B. Provide labels on tele/data faceplates

1.7 DAMAGES TO OTHER WORK

A. ETC is responsible for all damages to Work of ETC's own or any trade resulting from execution of ETC's Work. ETC is responsible to adequately protect ETC's Work at all times and all damages resulting from ETC's operations shall be repaired or damaged portions replaced to party originally performing damaged Work to entire satisfaction of the Engineer. All costs thereof borne by the Contractor responsible for the damage.

1.8 CUTTING AND PATCHING

A. Cutting into structural parts of the building will not be permitted without express prior approval of the Engineering, in writing.

1.9 NEGLIGENCE

A. Should ETC fail to provide materials, templates, or other necessary information causing delay or expense to another party, it shall pay actual amount of damages to party who sustained loss.

1.10 CLEANUP

A. Keep premises free of excessive accumulation of waste material or rubbish resulting from Work. Keep tools, scaffolding and surplus materials in storage areas when not in use. Leave Work areas broom clean.

B. In case of dispute, the Engineer may order removal of such rubbish and charge cost to responsible Contractor. At time of final cleanup, thoroughly clean all fixtures and equipment, and leave in proper condition for intended use.

1.11 TESTS

A. Provide all instrumentation and labor and conduct all tests recommended by equipment manufacturers and all further tests required by the Engineer.

B. In general, the Engineer will require all cable, splices, connections, and equipment to be tested for insulation resistance, continuity and proper operation.

C. Notify the Engineer in advance of these tests to permit scheduling in the presence of the Engineer.

D. Test each system in the presence of the Engineer to demonstrate correct operation.

1.12 WORK BY OTHERS

A. Complete details of the building construction, structural and mechanical systems, special equipment and systems, and related Work are not shown on the electrical system Drawings. Refer to the architectural, structural, mechanical, and special equipment Drawings for pertinent details of the Work required.

B. Include all items of electrical Work and equipment not included elsewhere.

C. Electric heating equipment is included in the mechanical Work. Provide all electrical items for connecting the heating equipment and controls, including conduit, wire, boxes, connectors, fittings, and connections.

D. Electrical Contractor is responsible for coordinating for coordinating this Work and including all items which are not included elsewhere.

E. Make electrical connections to motors and all equipment supplied by others.

1.13 LOCAL CONDITIONS

A. Contractor and ETC are expected to visit the site and acquaint themselves with site conditions before bidding.

B. Refer to architectural Drawings for orientation of buildings and site Work.

C. Take field measurements as needed. The Contractor/ETC is responsible for accuracy.

D. Determine soil conditions and terrain affecting underground installation.

1.14 CODES AND STANDARDS

A. Provide all Work in accordance with the national, State, and local electrical codes. These are regarded as the minimum standard of quality for materials and workmanship.

B. Perform all Work and provide all materials and equipment in conformance with the requirements of OSHA.

C. Provide materials and equipment which conform to the most current established industry standards which are available for the specific item.

D. Provide electrical materials and equipment conforming to NEMA and ANSI standards and additional standards as specified herein.

1.15 DEVIATIONS

A. Should any changes in Drawings or specifications be required to comply with local regulations and/or field conditions, refer same to the Engineer for approval before any Work commences which deviates from the original requirements of Drawings and specifications. In the event of disagreement as to the necessity of such changes, the decision of the Engineer shall be final.

B. Should structural interferences prevent installation of outlets or cabinets, running of conduits, or other interferences occur where electrical is shown on the Drawings, then, coordinate with the Engineer. Minor deviations may be permitted.

PART 2 – PRODUCTS

2.1 GENERAL

A. Provide new materials and equipment which are standard products of reputable manufacturers regularly engaged in production of such equipment.

B. Use material and equipment UL approved and labeled for the purpose for which it is to be used.

C. Use similar items of equipment of the same manufacturer and quality.

D. Where auxiliary items are specified, use standard catalog items of 1 manufacturer.

E. Provide a complete metal raceway system and complete wiring system for all building electrical systems. Provide conduit types where required.

2.2 RACEWAY AND FITTINGS

A. Raceway

1. The use of PVC conduit will be required in this building.

B. Fittings

1. Rigid conduit fittings

a. Provide CROUSEHINDS, GEDNEY, APPLETON, or T AND B with threaded hubs and galvanized finish over steel.

2. EMT fittings

a. Provide CROUSEHINDS, GEDNEY, APPLETON, or T AND B set screws or compression type. Indentor type fittings are not acceptable.

3. Flexible conduit fittings

a. APPLETON, GEDNEY, T AND B

4. Outlet boxes

a. Provide each raceway system outlet with an outlet box to suit conditions encountered. Use zinc-coated sheet metal boxes for interior Work and cast ferroalloy or cast copper free aluminum for exterior Work.
b. Provide box with sufficient volume to accommodate the number of conductors entering box, and not less than 1 1/2" deep. Ceiling bracket outlets shall not be less than 4" octagonal, except that smaller boxes may be used where required by a particular fixture.
c. Provide special boxes as required by signal, alarm, and special systems and as required by equipment manufacturers.

5. Tele/data boxes

a. Four port faceplates with 4 cat 5e inserts and labels.

2.3 CONDUCTORS

A. Provide conductors as indicated. All conductors shall be copper. Aluminum shall not be allowed. Conductors shall be sized for the load, #12 minimum size. Conductors shall conform to applicable standards of ASTM or ICEA.

B. Provide 600 volt insulation wiring except as otherwise noted. Unless otherwise indicated, provide type THHN insulated conductors when in conduit.

2.4 WALL SWITCHES

A. Provide toggle type A.C. switches, specification grade, 20 amp, 120/270 volt, white finish as manufactured by HUBBELL, LEVITON, or GENERAL ELECTRIC. Covers shall be steel type with smooth finished.

2.5 RECEPTACLES

A. Provide duplex A.C. receptacles, commercial grade, GFCI type, 20 amp, 120 volt, white finish as manufactured by HUBBEL, LEVITON, or GENERAL ELECTRIC.

2.6 ENTRANCE PANEL

A. SQUARE D QO 30 40 M200 main breaker load center with indoor cover and door for flush mount.
B. Network Cabinet: “Black Thinline II, wall mount cabinet 26” x 26” x 6”./

2.7 BREAKERS

A. Breakers shall be SQUARE D QO or QO-GFI series, size per code for each circuit.

2.8 LIGHT FIXTURES

A. Interior Light Fixtures: Use “Halo H750ICAT6 15 W Line Voltage LED New Construction IC-Rated Air Tight Housing with Halo 494WB06 LED Down Light Trim

B. Exterior Light Fixtures: Use “Lithonia Lighting OFLR 6LC 120 MO BZ M2 with motion detector.

C. Track Lights: Use Lithonia Lighting Model LTKSTBF BR30 LED MW M4

D. Lobby Lights: Use Acuity Lithonia Recessed Troffer F32TB 111W

2.9 EXHAUST FAN

A. Exhaust Fan Restroom – Provide NuTone Model HD 80NT

2.10 METER BASE

A. 200 Amp Stainless Steel Meter Base, flush mounted.

2.11 HAND DRYER RESTROOM

A. Hand Dryer – “Xcelerator” Model XL-W.

2.12 ELECTRIC VEHICLE CHARGING STATION

A. Powercharge Platinum Charging Station (40A), Dual service, Dual Pedestal Mount, Cable Retractor, 25’ Charging cables.

2.13 NETWORK CABINET RACK

A. 12 RU 19-inch rack.

2.14 OTHER MATERIALS

A. Provide others materials, not specifically described but required for a completed and proper installation, as selected by the Contractor to the approved of the Engineer.

PART 3 - EXECUTION

3.1 CONDUCTORS

A. Install conductors in raceways after all Work which may damage conductors has been completed. Thoroughly clean raceways before pulling conductors. Pull conductors through raceway in a manner that will not kink/injure insulation. Where lubricant is used to facilitate pulling, use only commercial lubrication materials manufactured for this purpose.

B. Make splices or taps in outlet, junction, or pull boxes only. Use T AND B or BURNDY solderless connectors for wire sizes larger than #8. Wrap SCOTCHLOK spring wire connectors with SCOTCH #33 plastic electrical tape and insulate to full voltage rating or conductor insulation.

C. At each wired outlet, leave not less than 8” of wire extending from outlet. Where several feeders and/or branch circuits pass through a common pull box, tag to indicate clearly electrical characteristics, circuit number, and panel description. A common neutral shall not be used for more than 1 set of conductors for a single phase, 3-wire circuit, and then only where voltage exists between undergrounded conductors.

3.2 RACEWAY SYSTEMS

A. Building raceway

1. Conceal raceways within structure of building except where obstructions in building construction make it impossible. Provide exposed raceways where indicated. Run raceway parallel to walls structural members or intersections of vertical planes and ceilings. Support raceways at intervals of not more than 8’ and at not more than 6” from each outlet. Make changes in direction of runs with symmetrical bends or cast metal fittings. Make bend internal radius to conform with code requirements but in no case less than 6 times internal diameter of the conduit.

B. Buried raceway

1. Provide buried raceway in the locations indicated. Install in rock and debris free trenches at depth indicated and backfill with rock free/debris free earth. Cap riser ends of buried conduit with threaded pipe caps immediately after installation of the conduit in the trench.

C. Stub conduit out from buildings where indicated and provide insulated bushings. Temporarily cap if not connected immediately. Cap spare conduits at each end with threaded pipe caps.

3.3 GROUNDING

A. Permanently ground the entire system, neutral conductors of wiring systems, etc., as prescribed by the National Electrical Code and/or other governing codes. Double lock-nut all conduits at panels, junction boxes, outlets, etc., to ensure continuity of grounding system.

B. Use driven ground rods for the building(s) grounding system. Install 2 or more rods as required to obtain a resistance to earth of not more than 25 ohms. Resistance of ground electrodes shall be measured by ETC. Driven ground rods shall be 3/4" diameter COPPERWELD, BLACKBURN, or COPPER-CLAD embedded not less than 9' 0" into earth. Run bonding conductors per code. Consult with Engineer if solid rock is encountered.

C. Provide 6 gauge multi-strand copper ground wire to Internet Box.

3.4 DEMOLITION

A. Protect existing electrical equipment and installations indicated to remain. If damaged or disturbed in the course of the Work, remove damaged portions and install new products of equal capacity, quality, and functionality.

B. Accessible Work: Remove exposed electrical equipment and installations, indicated to be demolished, in their entirety.

C. Abandoned Work: Cut and remove buried raceway and wiring, indicated to be abandoned in place, 2 inches below the surface of adjacent construction. Cap raceways and patch surface to match existing finish.

D. Remove, store, clean, reinstall, reconnect, and make operational components indicated for relocation.

3.5 Electric Vehicle Charging Station

A. Install per manufacturers recommendations.

3.6 GUARANTEE

A. The Contractor shall guarantee all materials and workmanship for a period of 1 year from the date of final acceptance of the Work and shall remedy without delay or any expense to the State, all defects, providing, in the judgment of the Engineer, the same are not the result of misuse or abuse.

END OF SECTION

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Disconnecting, capping or sealing site utilities.
7. Temporary erosion- and sedimentation-control measures.

1.2 MATERIAL OWNERSHIP

A. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.3 PROJECT CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

B. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

C. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.

D. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
2. Parking vehicles or equipment.
3. Foot traffic.
4. Erection of sheds or structures.
5. Impoundment of water.

6. Excavation or other digging unless otherwise indicated.
7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.

B. Locate and clearly identify trees, shrubs, and other vegetation to remain or to be relocated.

C. Protect existing site outside of work areas from damage during construction.

1. Restore damaged areas to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.

B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

A. General: Protect trees and plants remaining on-site according to requirements in Division 01-General Requirements, Section 015000 - Temporary Facilities and Controls.

B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Engineer.

3.4 EXISTING UTILITIES

A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.

1. Arrange with utility companies to shut off indicated utilities.

B. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Engineer not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Engineer's written permission.

3.5 CLEARING AND GRUBBING

A. Clear, grub, and grade the area as marked on the Drawings.

1. Remove stumps and roots, obstructions, and debris to a depth of 18 inches (450 mm) below exposed subgrade.
2. Use only hand methods for grubbing within protection zones.
3. All debris generated in performing this item of Work shall be disposed of by the Contractor in a Contractor furnished disposal site.

B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil to depth of 6 inches in a manner to prevent intermingling with underlying subsoil or other waste materials.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

3.7 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

B. Separate recyclable materials produced during site clearing from other non-recyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities. Do not interfere with other Project Work.

END OF SECTION

SECTION 312216 – FINE GRADING

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers preparing graded roadway for surfacing or surfaced roadway for paving or patching.

PART 2 - PRODUCTS

NONE

PART 3 - EXECUTION

3.1 SUBGRADE FOR SURFACING

A. In preparing the roadbed for surfacing, the Contractor shall:

1. Dispose of all debris as the Engineer directs.
2. Drain water from all low spots or ruts.
3. Shape the entire subgrade to a uniform surface running reasonably true to the line, grade, and cross-section staked by the Engineer.
4. Process the subgrade, if necessary, in cut areas to remove materials too coarse for mechanical trimming and recompaction.
5. Compact the subgrade to a depth of 6". Compaction shall achieve 95 percent of the maximum density as determined by compaction control test, WSDOT Test Method No. 606 or AASHTO T99 Method A as applicable. In the top 1', horizontal layers shall not exceed 4" in depth before compaction. No layer below the top 1' shall exceed 8" in depth before compaction.
6. Remove excess material that does not drift to low spots during blading and shaping. The Contractor shall dispose of this excess material by placing where the subgrade lacks material or by wasting; as the Engineer directs.
7. Add materials as required where the subgrade needs more to bring it up to grade. The Contractor shall water and compact these added materials as needed to produce a finished subgrade true to line and grade.

3.2 COMPACTION AND MOISTURE CONTROL TESTS/CORRECTIONS

A. If the Engineer determines that field-testing is required to determine compaction density/optimum moisture content, the Contractor shall comply with provisions of Division 31-Earthwork, Section 312316 - Excavation-Paragraph 3.1.

END OF SECTION

SECTION 312316 – EXCAVATION

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers the placement of foundation gravel for Welcome Center.

PART 2 – PRODUCTS

2.1 FOUNDATION GRAVEL

A. Foundation gravel shall be manufactured from ledge rock, talus, or gravel. The materials shall be uniform in quality and substantially free from wood, roots, bark, and other extraneous material and shall meet the following test requirements:

1. Los Angeles wear, 500 rev., 35 percent.
2. Degradation factor, 15 percent.

B. Foundation gravel shall meet the following requirements for grading and quality when placed in hauling vehicles for delivery to the roadway, or during manufacture and placement into temporary stockpile. The exact point of acceptance will be determined by the Engineer.

SIEVE SIZE	PERCENT PASSING
1 1/4” square	100
5/8” square	50 – 80
1/4” square	30 – 50
U.S. No. 40	3 – 18
U.S. No. 200	7.5 maximum
Percent Fracture	75 minimum
Sand Equivalent	40 minimum

1. All percentages are by weight.
2. The fracture requirement shall be at least one fractured face, and will apply to material retained on each sieve size U.S. No. 10 and above if that sieve retains more than 5 percent total sample.
3. The portion of crushed surfacing retained on 1/4” square sieve shall not contain more than 0.15 percent wood waste.

PART 3 – EXECUTION

3.1 PLACEMENT AND COMPACTION

A. Place and compact the foundation gravel to the lines, grade, and depth shown on the plans. Foundation gravel shall be placed in lifts no greater than 6" and shall be mechanically compacted to 95 percent maximum density as determined by WSDOT Test Method No. 606.

END OF SECTION

SECTION 312333 – TRENCHING AND BACKFILLING

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers all trenching/backfilling necessary for installing various types of underground utilities, valves, etc.

PART 2 – PRODUCTS

2.1 BEDDING MATERIAL

A. Bedding material for PVC utilities (water, irrigation, and sewer) and PVC conduits shall consist of imported sand backfill free of rock, debris, and organic matter, 100 percent passing 1/4" square opening.

2.2 BACKFILL FOR UTILITY TRENCHES

A. Backfill shall be native material with no roots or rocks in excess of 6" in any measurement. Backfill material shall not contain any frozen lumps/conglomerates.

2.3 TRACER WIRE

A. Tracer wire shall be 0.060" PVC insulated Type UF with solid copper conductor, 14 gauge, UL approved. Color shall be red.

2.4 PIPE IDENTIFICATION TAPE

A. Underground type plastic line markers shall be permanent, bright colored, continuous printed plastic tape, intended for direct burial service, not less than 6" wide x 4 mils thick. Provide appropriately colored tape with black printing reading "CAUTION (WATER, SEWER, TELEPHONE OR ELECTRICAL) LINE BURIED BELOW".

PART 3 – EXECUTION

3.1 UTILITY TRENCHES (GENERAL)

A. All trenches within areas open to the public shall be excavated, bedded, utilities installed and tested, and backfilled in one continuous operation to prevent inconvenience or danger to the public. Excavations remaining open for combined utilities shall be closed as soon as possible, and proper barricading, flagging, etc., shall be provided for public safety. The Contractor shall not, when possible, open trenches until all provisions have been made to install all utilities at one time.

B. Utility trenching shall include all excavation, maintaining of open trenches, bedding and backfilling for waterlines, primary and secondary electrical services, telephone, and sewer lines including transformer pads, valves, and all other miscellaneous items necessary for the completion of Work.

C. Trench excavation shall be made where staked and to a depth which will provide 3” of bedding under and 6” over the utility, and 36” of total cover except where otherwise noted. Trenches shall have vertical walls where possible, with adequate width to permit installation, inspection, and backfilling. Trenches shall be kept dewatered and free of unstable material in the vicinity of the utility line laying operation.

D. Trenches excavated in boggy or other unsuitable materials shall be excavated below grade to a depth as approved by the Engineer and backfilled with suitable approved compacted material. Excavation 12” below bottom of trench and backfill shall be considered incidental to the bid item.

E. The Contractor can expect to perform some hand excavation in Work areas where access by machinery is limited or where damage to existing utilities and/or major tree roots might occur.

F. All new underground utilities, except threaded joint steel pipe and electrical shall have single length of specified tracer wire buried alongside the utility, to facilitate location. The tracer wire shall be brought to within 6” of the surface at each valve, cleanout, manhole, and lift station. Tracer wire at valve boxes shall be located inside the valve box away from the center so operation of the valve is not impaired. Loop to provide a coil of extra 2’ of wire near the surface at the locations above. Loops within 6” of the surface shall also be provided at a maximum of 1,000’ apart when manholes or cleanouts do not exist and marked with a utility monument.

G. Place bedding material, compact and shape trench bottom prior to laying pipe; clear joints.

H. All utility lines shall be bedded under, over, and alongside with sand backfill free of rock and debris or as shown, and shall be thoroughly tamped over their full length by mechanical tamping equipment satisfactory to the Engineer. Bedding materials shall be hauled in at the Contractor’s expense. Water for compaction shall be used as necessary and/or as directed by the Engineer. Jetting shall not be allowed.

I. After tests of the utility satisfactory to the Engineer have been completed, backfilling may be completed. All backfill shall be placed in 1' layers and mechanically tamped with approved equipment. Where utility trenching operations damage existing paved or gravel roadways/parking lots, see Section 320118- Utility Trench Repairs (Gravel/Pavement).

J. All lawn that has been covered with excavated or other material or has been damaged by the Contractor's operation shall be cleaned up and restored/replaced as directed by the Engineer.

K. Monuments shall be provided at all angle points and sewer cleanouts. They shall be set flush in lawn, concrete, and paved surfaces, and raised 3" above grade in all other surfaces.

END OF SECTION

SECTION 320118 – UTILITY TRENCH REPAIRS (GRAVEL/PAVEMENT)

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers the repair of gravel or paved surfaces that have been damaged by utility trenching.

PART 2 – PRODUCTS

2.1 CRUSHED SURFACING TOP COURSE (C.S.T.C.)

A. C.S.T.C. shall conform to the provisions of WSDOT Specifications, Section 9-03.9(3).

2.2 HOT MIX ASPHALT (HMA)

A. HMA Class 1/2" PG 64-28 shall conform to the provisions of the WSDOT Specifications, Section 5-04.

2.3 ASPHALT TACK

A. Asphalt tack shall conform to the provisions of the WSDOT Specifications, Section 9-02, for CRS-2.

PART 3 – EXECUTION

3.1 GENERAL

A. All trenches and/or excavations made through existing paved or gravel surfaces shall be repaired as per the detail on the plans.

B. Prior to excavation in paved areas, the pavement shall be cut to neat lines (saw only) that are parallel to the utility. Trench width will vary on the project depending on the number of utilities located in the trench. See utility trench details on the plans. Existing pavement shall be removed 12" back from each trench wall to insure that the pavement repair seam locations do not coincide with trench walls.

C. When a backhoe is used in a paved area, blocking or supports shall be used under the leveling pads to prevent damage to paving.

D. Backfill the utility trench as per Section 312333 - Trenching and Backfilling, to a point 14" below finish grade of the gravel or pavement surface. The C.S.T.C. shall be placed in layers not to exceed 6", and be mechanically compacted to 95 percent maximum relative density.

E. In all areas that will have paved repairs, spray the existing pavement edges with asphalt tack prior to paving. Provide 0.2' of compacted hot mix asphalt, Class 1/2" in all areas where existing pavement was removed and/or damaged by construction. Asphalt concrete shall be placed and compacted in conformance with WSDOT Specifications, Section 5-04.

F. In graveled areas, the final 2" of material to finish grade shall be C.S.T.C. placed and compacted as the previous 12" of material.

END OF SECTION

SECTION 321100 - BASE COURSES

PART 1- GENERAL

1.1 SUMMARY

A. Section Includes

1. Furnishing and placement of one or more courses of aggregates as sub-base or base, on a prepared surface.

1.2 REFERENCES

A. American Association of State Highway and Transportation Officials (AASHTO):

1. T 2, Standard Specification for Sampling of Aggregates.
2. T 11, Standard Method of Test for Materials Finer Than 75-um (No. 200) Sieve in Mineral Aggregates by Washing.
3. T 21, Standard Method of Test for Mass per Cubic Meter (Cubic Foot), Yield, and Air Content (Gravimetric) of Concrete.
4. T 27, Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates.
5. T 89, Standard Method of Test for Determining the Liquid Limit of Soils.
6. T 90, Standard Method of Test for Determining the Plastic Limit and Plasticity Index of Soils.
7. T 96, Standard Method of Test for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
8. T 99 - Standard Method of Test for the Moisture-Density Relations of Soils Using a 2.5-kg (5.5 lb) Rammer and a 305-mm (12-inch) Drop.
9. T 104, Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate.
10. T 112, Standard Method of Test for Clay Lumps and Friable Particles in Aggregate.
11. T 113, Standard Method of Test for Lightweight Pieces in Aggregate.
12. T 176, Standard Method of Test for Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.
13. T 191, Standard Method of Test for Density of Soil In-Place by the Sand-Cone Method.
14. T 205, Standard Method of Test for Density of Soil In-Place by the Rubber Balloon Method.
15. T 224, Standard Method of Test for Course Particles in the Soil Compaction Test.
16. T 238, Standard Method of Test for Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth).

B. Washington Department of Transportation (WSDOT)

C. Western Alliance for Quality Transportation Construction (WAQTC):

1. TM 1, Determining the Percentage of Fracture in Coarse Aggregates.

D. American Society for Testing Materials (ASTM):

1. C 109, Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-inch or (50-mm) Cube Specimens).
2. D 698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).

1.3 SYSTEM DESCRIPTION

A. Design Requirements, Performance Requirements:

1. Determine grading requirements as percentages by weight and determine gradation by sieve analysis in accordance with AASHTO T27.
2. Verify that the source materials for aggregate subbase do not exceed 45 percent wear when tested according to AASHTO T96.
3. Test aggregate bases according to AASHTO T176 and provide a sand equivalent of not less than 30.

1.4 SUBMITTALS

A. Quality Assurance/Control Submittals

1. Test Reports:

a. Reports for tests indicated in PART 2 and PART 3 below.
b. Gradations showing compliance with this Section.

1.5 QUALITY ASSURANCE

A. Field Samples

1. Aggregates subject to approval at the source or at the actual stockpile from which the aggregate is taken for incorporation into the Work.
2. During production of the aggregate, provide samples of each size for testing if requested by Project Engineer.
3. On the basis of testing, modify, or adjust crushing and screening operations to bring each separate size of aggregate within gradings, proportions, and quantities specified.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packing, Shipping, Handling, and Unloading:

1. Pursuant to Section 016000 – Product Requirements.
2. In stages of production, transporting, and stockpiling, handle aggregates in a manner to prevent the segregation of materials and the intermingling of separate gradings or kinds of aggregates, as far as practicable.

B. Storage and Protection

1. Prevent segregation and/or intermingling of materials.

PART 2 PRODUCTS

2.1 MATERIALS

A. Gravel Borrow:

1. Aggregate for gravel borrow shall consist of granular material, either naturally occurring or processed, and shall meet the following requirements for grading quality:

Sieve Size	Percent Passing by Weight
4"	100 percent
2"	75-100 percent
#4	50-80 percent
#40	30 percent max.
#200	7.0 percent max.
Sand Equivalent	50 percent min.

2. Ballast may be substituted for gravel borrow for embankment construction.

B. Crushed Surfacing Top Course

1. Crushed Surfacing Top Course shall be as defined in Washington Standard Specifications for Road, Bridge, and Municipal Construction Section 9-03.9 – Crushed Surfacing

C. Crushed Surfacing Base Course (CSBC):

1. Crushed Surfacing Base Course shall be as defined in Washington Standard Specifications for Road, Bridge, and Municipal Construction Section 9-03.9 – Crushed Surfacing.
2. Additives: Recycled concrete rubble not acceptable as a substitute or additive.

D. Gravel Base Course:

1. Gravel base shall consist of granular material, either naturally occurring or processed. It shall be essentially free from various types of wood waste or other extraneous or objectionable materials. It shall have such characteristics of size and shape that it will compact readily and shall meet the following test requirements:

   a. Stabilometer "R" Value 72 min.
   b. Swell pressure 0.3 psi max.

2. The maximum particle size shall no exceed 2/3 of the depth of the layer being placed.
3. Gravel base shall meet the following requirements for grading and quality when placed in hauling vehicles for delivery to the roadway or during manufacture and placement into a temporary into a temporary stockpile. The exact point of acceptance will be determined by the Engineer.

Sieve Size	Percent Passing by Weight
2" square	75-100 percent
U.S. No. 4	22-100 percent
U.S. No. 200	0-10 percent
Dust Ratio:	2/3 percent max.
Sand Equivalent	30 percent min.

4. Gravel base material retained on a U.S. No. 4 sieve shall contain not more than 0.20 percent by weight of wood waste.

2.2 SOURCE QUALITY CONTROL

A. Tests, Inspections

1. Coarse Aggregate

   a. Degradation (Passing No. 20 Sieve) - 30 Percent Max
   b. Sediment Height - 3-inch Max
   c. Abrasion - 35 Percent Max

      1) Test Method - AASHTO T96

   d. Additional sampling and testing of coarse aggregate in accordance with the following methods:

      1) Sampling - AASHTO T2
      2) Materials Passing No. 200 Sieve - AASHTO T11
      3) Sieve Analysis - AASHTO T27
      4) Soundness - AASHTO T104
      5) Friable Particles - AASHTO T112
      6) Lightweight Pieces - AASHTO T 113
      7) Fracture - WAQTC TM1

2. Fine Aggregate

a. Durability requirements for coarse aggregates.
b. Liquid Limit - Test Method - AASHTO T89
c. Plasticity Index - Test Method - AASHTO T90
d. Liquid limit and plasticity index test requirements:

Percent of Material Passing No. 40 Sieve	Liquid Limit (Maximum)	Plasticity Index (Maximum)
0.0 to 5.0, inclusive	33	6
5.1 to 10.0, inclusive	30	5
10.1 to 15.0, inclusive	27	4
15.1 to 20.0, inclusive	24	3
20.1 to 25.0, inclusive	21	2
Over 25.0	21	0 or NP

e. Additional sampling and testing of fine aggregate conforming to the following methods:

1) Sampling - AASHTO T2
2) Materials Passing No. 200 Sieve - AASHTO T11
3) Organic Impurities - AASHTO T21
4) Sieve Analysis - AASHTO T27
5) Mortar Strength - ASTM C109
6) Soundness - AASHTO T104
7) Friable Particles - AASHTO T112
8) Lightweight Pieces - AASHTO T113
9) Sand Equivalent - AASHTO T176

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Preparation

1. Prepare surface as required in Section 312216 – Fine Grading.
2. Owner shall be notified 24 hours in advance of placing aggregate base on a prepared subgrade.

3.2 CONSTRUCTION

A. Mixing:

1. Mix materials to provide a homogenous mixture of unsegregated and uniformly dispersed materials which will compact as specified below.
2. Add water during mixing in amounts sufficient to provide optimum moisture content plus or minus two percentage points.

B. Hauling and Spreading

1. Do not haul over surfacing in process of construction. Pumping of the underlying subgrade due to construction equipment traffic shall be replaced at no additional cost to the Owner.
2. Maintain consistent gradation of material being delivered. Material found to vary from the required gradation will be cause for rejection.
3. Distribute material to provide required density, grade, and dimensions with allowance for subsequent lifts.
4. Ensure even distribution of material upon roadway without segregation. Spreading equipment shall be capable of spreading and striking off material to the designated line, grade, and transverse slope with a uniform surface texture free from excessive segregation or fracture of material.
5. Project Engineer may direct Contractor to modify hauling and spreading method to correct segregation.

C. Placing

1. Do not place materials during times of severe rain showers which cause the subgrade to collect standing water.
2. Do not place surfacing material in snow or on soft, muddy, or frozen ground.
3. Deposit aggregate bases at a uniform quantity per linear foot so that material is not spotted, picked up, or shifted.
4. Avoid segregation of aggregates and spread the material free of pockets of coarse or fine material.
5. Aggregate materials may be stockpiled prior to placement into final position. Excessive handling of graded material which causes segregation shall not be used.
6. If the required compacted depth of the base course exceeds six inches, construct depth in two or more lifts of approximately equal thickness.

    a. Do not exceed six inches maximum compacted thickness of one layer.
    b. Place each layer in spreads as wide as practicable and to full width of the course before a succeeding layer is placed.

7. Replace gravel surfacing on driveways and roads which were gravel surfaced prior to construction.
8. Provide compacted gravel surfacing in alleys and gravel roads to a depth equal to original, but not less than six inches. For shoulder rock, place material of thickness as shown on the Drawings.

D. Rolling and Compacting

1. Use compaction equipment adequate in design and number to provide compaction of materials to a firm, even surface, and obtain the specified density.
2. Provide level of compaction and compaction equipment as specified for the type of backfill used, in accordance with Section 312316 – Excavation.
3. Commence rolling at outer edges of surfacing and continue toward center. Do not roll center of roadway first.
4. Apply water as needed to obtain proper compaction.
5. Place and compact each lift prior to succeeding lifts.
6. Remedy surface defects by loosening and rolling again.

E. Site Tolerances

1. Finish surface of base course shall be within plus or minus 0.04-foot of grade.

3.3 FIELD QUALITY CONTROL

A. Comply with compaction testing methods for density requirements with AASHTO T191, T205, or T238.

1. Compact each layer to not less than 95 percent of maximum density as determined by ASTM D698.

B. Perform a minimum of one test for every 500 cubic yards placed. At least one test shall be performed each day the material is placed.

END OF SECTION

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Hot-mix asphalt patching.
2. Hot-mix asphalt paving.
3. Pavement-marking paint.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.

B. Material Certificates: For each paving material, from manufacturer.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by WSDOT.

B. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the Standard Specifications as published by WSDOT.

1.4 PROJECT CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

1. Tack Coat: Minimum surface temperature of 60 Degrees Fahrenheit.
2. Asphalt Base Course: Minimum surface temperature of 40 Degrees Fahrenheit and rising at time of placement.
3. Asphalt Surface Course: Minimum surface temperature of 60 Degrees Fahrenheit at time of placement.

B. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 degrees Fahrenheit for oil-based materials 55 degrees Fahrenheit for water-based materials, and not exceeding 95 Degrees Fahrenheit.

PART 2 - PRODUCTS

2.1 AGGREGATES

A. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.

B. Fine Aggregate: AASHTO M 29, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.

C. Mineral Filler: AASHTO M 17, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

A. Asphalt Binder: AASHTO M 320 or AASHTO MP 1a,

B. Tack Coat: ASTM D 977 or AASHTO M 140 emulsified asphalt, or ASTM D 2397 or AASHTO M 208 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.

2.3 AUXILIARY MATERIALS

A. Herbicide: Commercial chemical for weed control, registered by the EPA. Provide in granular, liquid, or wettable powder form.

B. Pavement-Marking Paint: MPI #32 Alkyd Traffic Marking Paint.

1. Color: White, Yellow as indicated.

C. Pavement-Marking Paint: MPI #97 Latex Traffic Marking Paint.

1. Color: White, Yellow as indicated.

D. Bumper Blocks: Precast, air-entrained concrete, 2500-psi minimum compressive strength, 4-1/2 inches high by 9 inches wide by 72 inches long. Provide chamfered corners, drainage slots on underside, and holes for anchoring to substrate.

1. Dowels: Galvanized steel, 3/4-inch diameter, 10-inch minimum length with rounded head.

2.4 MIXES

A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction**;** designed according to procedures in AI MS-2, "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types"; and complying with the following requirements:

1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

B. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 PATCHING

A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement Section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Re-compact existing unbound-aggregate base course to form new subgrade.

B. Portland Cement Concrete Pavement: Break cracked slabs and roll as required to reseat concrete pieces firmly.

1. Remove disintegrated or badly cracked pavement. Excavate rectangular or trapezoidal patches, extending into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Re-compact existing unbound-aggregate base course to form new subgrade.

C. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd.

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

D. Patching: Fill excavated pavements with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

3.3 SURFACE PREPARATION

A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.

B. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.

C. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd.

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.

2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.4 TRAFFIC CONTROL

A. The Contractor must submit a traffic control plan to Kitsap County and have it approved prior to working in the County Road right-of-way.

B. The road shall remain open to traffic flow for the duration of the Work. All traffic controls shall be provided by the Contractor to safely maintain flow of traffic for the duration of the Work within the right-of-way of the County Roadway.

C. The Owner will allow traffic to be routed through the Project site provided no Work on the apron has been started.

D. The Contractor shall provide all flaggers, warning signs, cones, and other devices to safely control and maintain traffic flow on NE Sylvan Way, and internal park roads impacted by work.

E. Provide steel road plate for trenched utility crossings while CDF cures, to protect cut edges of HMA from traffic/damage, and as necessary for all other Work.

F. Comply with all permit requirements, State, and local regulations.

3.5 HOT-MIX ASPHALT PLACING

A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross Section, and thickness when compacted.

1. Spread mix at minimum temperature of 250 Degrees Fahrenheit.
2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

B. Place paving in consecutive strips not less than 8 feet wide unless infill edge strips of a lesser width are required.

C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.6 JOINTS

A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.

1. Clean contact surfaces and apply tack coat to joints.
2. Construct transverse joints at each point where paver ends a day's Work and resumes Work at a subsequent time. Construct these joints using either "bulkhead" or "papered"

method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."

3.7 COMPACTION

A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.

1. Complete compaction before mix temperature cools to 185 Degrees Fahrenheit.

B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:

1. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.

D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.

F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

H. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:

I. Base Course: Plus or minus 1/2 inch

1. Surface Course: Plus 1/4 inch, no minus.

J. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:

1. Base Course: 1/4 inch.
2. Surface Course: 1/4 inch.
3. Crowned Surfaces: Test with crowned template centered and at right angle to crown.
4. Maximum allowable variance from template is 1/4 inch.

3.8 PAVEMENT MARKING

A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Engineer.

B. Allow paving to age for 30 days before starting pavement marking.

C. Sweep and clean surface to eliminate loose material and dust.

D. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.

3.9 WHEEL STOPS

A. Securely attach wheel stops to pavement with two galvanized-steel round headed dowels embedded at one-quarter to one-third points. Securely install dowels into pavement.

3.10 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.

B. Replace and compact hot-mix asphalt where core tests were taken.

C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.11 DISPOSAL

A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

END OF SECTION

SECTION 322000 – SIGNAGE

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers the furnishing and installing of permanent signing, including posts, as shown in the plans.

PART 2 - PRODUCTS

2.1 PERMANENT SIGNING

A. Materials for permanent signing shall be in accordance with Section 9-28 of the 2004 WSDOT-APWA Standard Specifications. Signs shall be the size and type shown in the plans.

PART 3 - EXECUTION

3.1 LOCATION OF SIGNS

A. Signs shall be located as shown in the plans. These are tentative locations, subject to change by the Engineer. Final timber post lengths shall be determined by the Contractor and verified by the Engineer.

3.2 PLACEMENT

A. Signs shall be placed behind the ditch, curb or barrier and turned out approximately zero degrees from the pavement edge of oncoming traffic. Sign posts shall be plumb and signs level. Postholes shall be of sufficient diameter to allow placement and thorough compaction of selected backfill material completely around the post. Backfill shall consist of earth or fine sandy gravel free from organic mater with no particles exceeding 1.5 inches in diameter. The signs shall be cleaned to the satisfaction of the Engineer after placement.

3.3 EXISTING SIGNS

A. All existing signs shall be removed during construction and replaced on new posts in conformance with this Section. Existing posts may be reused if, in the opinion of the Engineer, the posts are still structurally sound and are long enough to meet the installation requirements of the new location.

END OF SECTION

SECTION 329000 – LANDSCAPE PLANTING

PART 1 - GENERAL

1.1 SCOPE

A. General: Provide all labor, equipment, and materials necessary for installation of landscaping as indicated, including but not limited to installation of topsoil, mulch, finish grading, fertilizer, seed mix, plant material, cleanup and maintenance through final acceptance.

1.2 STANDARD SPECIFICATIONS

A. General: Conform with the following standard specifications, except as supplemented or modified hereinafter:

1. Plant Names: “International Code of Nomenclature for Cultivated Plants”, 2009, published by the International Society for Horticultural Science, www.actahort.org. Names not present in this listing shall conform to accepted nomenclature in the nursery trade.
2. Quality Standards: "American Standard for Nursery Stock," approved by the American National Standards Institute, hereinafter called ANSI Z60.1-2014, and published by American Horticulture Industry Association, www.AmericanHort.org
3. Plant Source: Plants shall be purchased from state licensed plant nurseries.

1.3 INSPECTION

A. General: Owner reserves right to reject material at any time until final inspection and acceptance. Remove rejected material immediately from site. Produce upon request sales receipts for all material and certificates from federal, State and other authorities.

1.4 MATERIALS

A. General: Whenever any material is specified by name/number, such specifications are for the purpose of facilitating a description of materials and establishing quality, and shall be deemed and construed to be followed by the words "or approved equal." No substitutions will be permitted which have not been submitted for prior approval to Owner's Representative. Furnish sufficient descriptive literature and/or Samples for any material submitted as "equal" substitutes.

B. Materials: Furnish plant materials that are well established and vigorous normal habit of growth, must be free from disease, approved for quality, size and variety upon delivery at site. Verify prior to bid date all sources of supply. Ensure availability of listed sizes, species, variety and quality. Conform with size requirements indicated on Drawings or specified herein after, and within requirements of ANSI Z60.1-2014.

C. Native plant materials will be native to the northwest, and preferably the Project site. Specified native plant materials will be propagated from native stock; no cultivars or horticultural varieties will be allowed.

1.5 CONTRACTOR

A. General: Contractor must be experienced in landscape Work of highest professional quality of a similar nature; must have adequate facilities and personnel for indicated Work; and must become acquainted with all other Work related to site improvements, and any other Work which might affect preparation for installation of landscaping.

1.6 SUBMITTALS

A. Manufacturer's Certificates of Conformance:

1. Seed.
2. Compost Mulch

B. Test Certificates: Submit reports and obtain approval prior to mixing at plant and importing to site. Submit the following certified test reports to enable Owner's Representative to determine compliance with specification:

1. Imported or approved on-site sandy loam component (including sieve analysis, nutrient analysis, salt component and organic matter by weight);
2. Imported topsoil sand component (sieve analysis);
3. Imported topsoil compost component (sieve analysis; organic matter content by weight).

C. Handling Permit: Submit a copy of the solid waste Handling Permit issued to the supplier of the composted yard waste by the Jurisdictional Health Department.

1.7 PROTECTION

A. General: Protect adjacent property, public walks, curbs and pavement from damage. Do not place soil directly on paved surfaces. Locate all underground utilities prior to commencement of Work. Repair at Contractor's expense damaged utilities, curbs, paving, walks, walls, structures, or existing plantings. Keep street and area drains open and free flowing. Do not store materials outside the indicated Limits of Work. Remove and legally dispose of excess materials. Erect necessary signs and barriers against pedestrian/vehicular traffic.

1.8 DELIVERY

A. General: Protect plant material from wind, drought, unusual weather or vandalism. Deliver branched plants with branches tied and exposed branches covered with material which allows air circulation. Prevent damage to root balls and desiccation of leaves. Protect seed from dehydration, contamination and heating during delivery, storage, and handling. Store seed in cool dry location away from contaminants.

B. Handling: Do not drop or dump materials from vehicles. Avoid drying or damaging plants being moved from the nursery or storage area to the planting site. Do not handle plants by the trunk or

stems. Protect plants from freezing or drying by a covering of burlap, tarpaulin, or mulching material during transportation from the heeling-in bed to the planting site. Damaged plants will be rejected and shall be removed from the site.

1.9 GUARANTEE

A. General: All plant material shall be guaranteed by the Contractor for a period of one year from the date of final acceptance, to be in healthy condition.

1. Inspections: Make periodic inspections, at no extra cost to Owner, during guarantee period. Determine what changes if any should be made in Owner's maintenance program.
2. Replacement at guarantee period conclusion: Replace, at no cost to the Owner, and as soon as weather conditions permit, dead plants and plants not in vigorous, thriving condition. Replacements to be of same species and to be subject to all indicated requirements.
3. Fertilize and reseed areas not in a normal healthy growing condition.

B. Letter of Guarantee: Provide a signed letter stating that the Contractor will conform to the guarantee requirements stated in the specifications.

1.10 CODES AND REGULATIONS

A. General: Comply with all applicable city, county, State and Federal codes and regulations.

PART 2 - PRODUCTS

2.1 TOPSOIL

A. General: Topsoil to be fertile, friable, sandy loam, and to supply the following composition requirements: weed and seed free; pH between 5.5 and 7.5; maximum particle size to be 1/2 inch, with 97 percent to 100 percent passing the 3/8" screen; soluble salts shall not exceed 600 ppm; free of clay and sod lumps, litter and toxic matter harmful to plant growth. Pure organic content shall be 10 percent maximum by weight. Topsoil components shall be mixed in the following proportions (percentages below are by volume):

1. All areas: 10 percent composted yard waste, 50 percent sandy loam, 40 percent sand.
2. All components shall conform to the requirements indicated. Mixing of the soil components shall not occur on site unless on-site materials, mixing operation and locations are approved.

B. Sand: Submit separate sand sieve analysis for approval prior to mixing. Conform to the following analysis using Tyler Standard Screens - U.S. Series Equivalent Number:

Sieve	Percent Passing
#4	100 percent
#10	95-100 percent
#16	85-100 percent
#30	75-90 percent
#60	15-30 percent
#100	0-5 percent
#200 (wet sieve procedure)	0-1.5 percent

C. Composted Yard Waste: Material derived from aerobic decomposition of recycled plant waste fully composted; material shall be composted on a paved surface and shall have a moisture content of between 20 percent and 40 percent no visible free water or dust shall be produced when handling the material; fresh sawdust or fresh wood by products shall not have been added after the composting process has begun. No recycled sanican waste shall be used. Yard waste shall be from permitted composting facility. Pure organic matter content shall be between 30 percent and 50 percent by weight. 100 percent of composted yard waste shall pass the 7/16 inch screen and a minimum 50 percent shall pass the 1/4" screen. Material shall be maintained at a 15 percent oxygen level throughout the composting process. Available from Cedar Grove or approved equal.

D. Sandy Loam: Shall be derived from the "A" Horizon of naturally occurring friable soils. Soils with a high fine silt or clay content will be rejected. Screened on-site soils will be considered if it does not contain woody debris, rock, or glacial till.

2.2 CHEMICALS

A. General: Herbicide, insecticide and fungicide shall not be used on this Project.

2.3 WATER

A. General: Furnished by Owner.

2.4 MULCH

A. General: Free from weeds, weed seed, mold or other noxious materials.

1. Organic Mulch: Composted yard waste per this Section, 2.1, C.
2. Wood Fiber Mulch for Hydroseeding: A commercially prepared wood fiber mulch specifically manufactured for lawn hydroseeding, and as approved by Owner’s Representative.

2.5 PLANT MATERIAL

A. General: Plants to be grown by licensed plant nursery with size at least equal to size specified, prior to pruning. Do not prune prior to site delivery. Measurements, caliper, branching, grading, quality, balling and bur lapping per “American Standards for Nursery Stock”. Substitutions of smaller plant sizes will not be permitted; however, substitutions of larger sizes of the same type are acceptable, with approval, at no extra cost to the Owner. Plants to be inspected and approved by Owner’s Representative prior to planting.

B. Container stock: Container stock shall be well-rooted but not root bound. Root bound stock will be rejected. Plant size shall be proportional to container size. Plants with insect, disease, frost or drought damage will be rejected. Do not handle container stock by tops, stems or trunks. Carefully loosen roots prior to planting. Containers shall be weed-free.

C. Balled and burlapped stock (B&B): Dug with firm, natural balls of soil around roots; ball diameter and depth sufficient to encompass fibrous and feeding roots. Wrap with burlap and bind with twine, cord or wire mesh in accordance with ANSI Z60.1-2014. Handle by ball only. Take care to protect ball and plant. Cracked, broken or dry-to-the-center balls will not be acceptable. Root-balls shall be weed-free.

D. Pruning: Do not prune before delivery. Prune or limb new and existing plants only as directed by Owner's Representative. Trees with bark sunscalds, broken leaders, disfiguring knots or fresh cuts of limbs over 3/4 inch not completely calloused will be rejected.

2.6 COMMON FILL

A. General: Fill for subgrade in all plant beds and seed beds shall be approved on-site soils, or approved native material. Fill shall have a maximum particle size of 2", and be free of large rocks, sticks or other deleterious materials. Stripped topsoil may be used as subgrade within the top 10" under topsoil, in plant beds and seed beds. Depth of organic soils used as subgrade may be deeper than 10" only in areas approved by Owner’s Representative.

2.7 SEED

A. General: Seed shall be "Blue Tag" or certified quality. Deliver in unopened containers with mixture seed content and inert material content plainly marked on outside of container:

1. Lawn Seed Mix:

B. Submittals: A complete analysis of the seed shall be submitted to the Owner's Representative for approval including percent of pure seed, germination, other crop seed, inert and weed and the germination test date. Total weed seed for mixture shall not exceed one percent (1 percent.)

PART 3 - EXECUTION

3.1 TOPSOIL AND FINISH GRADING

A. General: Prepare subgrade in all seed bed and ornamental plant bed areas by scarifying to 8" minimum depth and removing rocks and debris over 2" in diameter. Subgrade soils should be free-draining and without any impervious soils or other materials harmful to plant growth. It is the Contractor's responsibility to notify the Owner's Representative of any subgrade conditions deleterious to plant growth.

B. Spread Topsoil: Do not spread topsoil when frozen or excessively wet or dry. Topsoil depth after settlement:

1. Plant Bed: Minimum 6”.
2. Lawn Seed Areas: Minimum 4”.
3. Disturbed Areas not otherwise designated for improvements: Minimum 4”.

C. Till Topsoil: In all plant beds, thoroughly rototill topsoil mix into existing subgrade to an 8" minimum depth prior to planting. Do not till topsoil in any lawn areas.

Percent by Weight	Ingredient	Percent of Pure Seed	Min. Percent of Pure Seed in Mix	Min. Percent of Germination	Max. Weed Seed Percent
45 Percent	Dwarf Tall Fescue	98 Percent	29.4 Percent	90 Percent	1 Percent
30 Percent	Dwarf Perennial Rye	98 Percent	29.4 Percent	90 Percent	1 Percent
20 Percent	Red Fescue	98 Percent	29.4 Percent	90 Percent	1 Percent
5 Percent	Colonial Bentgrass	98 Percent	29.4 Percent	90 Percent	1 Percent

D. Fine Grading:

1. General: Fine grade per Section 312216 - Fine Grading and as indicated on Drawings. Rake entire surface to a smooth and even grade, remove all rocks over 1” diameter, remove grass roots and debris. Conform to grading tolerances defined in Section 312216 – Fine Grading.
2. All Plant Beds: 2” below pavement, curbs and finish lawn grades. (Surface of 2” layer of mulch shall be flush with pavement.)
3. Lawn Areas: Flush with surrounding grades, pavement and top of curbs/walls.

3.2 PLANTING

A. Time of Planting: All plant material to be placed as approved by Owner's Representative. Do not plant when ground is frozen, snow covered or muddy.

B. Location: Prior to commencement of planting operations, stake tree locations and stake outline of all shrub beds. Mark name of variety on stake where different varieties are massed. Obtain approval of Owner's Representative prior to planting.

C. Placement of Trees, Shrubs and Groundcover: Dig tree and shrub holes to depth of root mass and twice as wide. Using spade rough up sides and bottom of planting holes. Set trees and shrubs in center of pits and fill with specified sandy loam or native soil. Gently compact soil to hold plants firmly upright and water to fill in voids. Root mass and surrounding soil should be thoroughly and evenly soaked. Adjust soil level as needed to assure that finish grade after settlement is at the correct elevation at base of tree truck or shrub. Wildflower planting areas can be dug in massed bed, then plants set per specified spacing. Tamp sandy loam or native soils back in around the individual plants. Ground covers can be planted using individually dug holes or set in mass excavation at specified spacing. Wildflowers and ground cover plants to be watered in and soils adjusted to correct planting heights. Planting area finish grades should be corrected so there is no ponding between plants and so that water does not run off on to surrounding pavement.

1. For container stock: Cut 2 sides with approved type cutter, taking care to avoid any root damage. Remove container. Loosen root mass by hand or by scoring sides and base with knife or clippers.
2. For balled stock: Cut string and remove fasteners. Remove burlap. Loosen tight root mass before placing in hole.
3. For wire baskets: Cut wire and remove wire basket. Loosen tight root mass before placing in hole.

F. Organic Mulch: Spread 3" depth as indicated in all plant beds, and in a 2’-0” diameter circle around trees in lawn areas.

G. Staking and Guying: Place stakes, wire, and hose as indicated.

3.3 SEEDING OF LAWN AREAS

A. Equipment: Hydroseeding equipment shall be as approved. Hydroseeding mixture shall consist of a slurry composed of water, seed, fertilizer and mulch in proportions as follows:

1.	Seed	350 lbs/acre min.
2.	Fertilizer	200 lbs/acre
3.	Wood Fiber	2000 lbs/acre

B. Fine Grade: Finish surfaces by raking smooth and even; lightly compact with roller. Level out surface undulations and irregularities and recompact as necessary. Remove from the surface all rocks over 1” diameter and all debris. Avoid damaging existing site fixtures, utilities and plant material that are to remain. Drive no heavy equipment over seed bed areas after this operation. Areas to be seeded which are not accessible to hydroseeding equipment are to be mechanically or hand seeded as approved with the same rates of application or with approved sod.

C. Seeding: Plant seed in designated areas of site. Sow half seed in one direction, then sow half at right angles over same area. No seeding during adverse weather, or when winds exceed 5 miles per hour. Water slowly and thoroughly. Initial watering with a hose and fine spray nozzle only. Keep seed bed moist throughout germination. Clean excess slurry off plant material, paving, and walls and building. Remove any grass which germinates outside specified lawn areas.

D. Timing: Seed only from March 15 to October 15 or as approved by Owner's Representative.

E. Protection: Protect against harm from wind, storm water and trespassing. Treat and reseed damaged portions as required. Erect temporary fencing around newly seeded area. Post signage indicating new seeding as necessary to prevent trespassing.

F. Irrigation: Irrigate all seeded areas as required to ensure germination and establishment of a healthy stand of grass. Thoroughly irrigate areas which do not have an automatic irrigation system using a watering truck or other approved method, through final completion, adjusted for season.

3.4 WATERING

A. The Contractor is responsible from the time of installation until the end of the plant establishment period and final acceptance, for watering all new plantings, seed areas and plant beds using either a temporary irrigation system of the Contractor’s design or water trucks. The Contractor shall avoid methods which may damage plant materials. All materials used for a temporary irrigation system shall be removed by the Contractor by Final Acceptance. The Contractor shall coordinate with the Owner and maintenance personnel regarding allowable times to operate the temporary system. There shall be no overspray allowed outside the limits of newly planted areas unless approved otherwise. Contractor’s temporary system shall not exceed 10 gpm at any time.

3.5 CLEAN UP

A. Remove from site all cans, surplus subsoil and other debris resulting from planting and grading operations. Neatly dress and finish landscaping areas.

3.6 PLANT ESTABLISHMENT AND FINAL ACCEPTANCE

A. Establishment Period and Maintenance: The Establishment Period will commence at the time of first planting, and will extend until Final Acceptance of the entire Project. Maintenance during this period to include:

1. Watering: Make necessary adjustments to watering schedule to accommodate seasonal changes. Water areas of new seed and plant beds so that they receive adequate water for survival of the plant in a healthy condition.
2. Re-seeding: Re-seed spots larger than 1 S.F. not having a uniform stand of grass.
3. Weeding: Remove all weeds before they reach 6” from all plant beds, and individual tree plantings in the lawn and seeded areas.

B. Guarantee: All plant material shall be guaranteed by the Contractor for a period of one year from the date of final acceptance, to be in healthy condition.

1. Inspections: Make periodic inspections, at no extra cost to Owner, during guarantee period. Determine what changes if any should be made in Owner's maintenance program.
2. Replacement at guarantee period conclusion: Replace, at no cost to Owner, and as soon as weather conditions permit, dead plants and plants not in vigorous, thriving condition. Replacements to be of same species and to be subject to all indicated requirements.

C. Final Inspection and Acceptance: Final inspection of the Work in this Section will be made at the time of the Final Inspection of the entire Project. A final "punch list" will be issued. Final Acceptance of the landscaped areas will be contingent upon Final Acceptance of the entire Project.

END OF SECTION

SECTION 331000 –WATER UTILITY DISTRIBUTION PIPING

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. This Section covers the installation, testing, flushing, and disinfection of domestic water distribution systems including piping, valves, valve boxes, connections, and other Work and/or materials necessary to provide a complete working system.

PART 2 – PRODUCTS

2.1 GALVANIZED STEEL PIPE AND FITTINGS

A. All steel pipe shall be standard wall (Schedule 40) galvanized steel. All fittings shall be standard weight galvanized malleable iron for flanged or threaded fittings. All pipe shall meet current ASTM standard designations and be NSF approved.

2.2 PVC PIPE AND FITTINGS (HIGH PRESSURE)

A. All plastic pipe shall be polyvinyl chloride (PVC) Type I, Grade II (1120, Schedule 40), conforming to ASTM D 2241, unless otherwise specified, and shall be NSF approved. All pipe shall have solvent weld joints.

B. All fittings shall be polyvinyl chloride (PVC) Schedule 40, solvent weld joints. Each fitting shall have size and Schedule 40 denoted on it, NSF approved, and shall be injection molded type; extruded fittings not acceptable.

2.3 PVC CONDUITS

A. PVC pipe for conduits under roadways, etc., shall be high pressure PVC pipe and fittings, Class 200, with injected molded Schedule 40 fittings, solvent weld.

2.4 GATE VALVES

A. All valves, except as herein specified shall be rated 200 psi working pressure, cold-water, iron body, with resilient sealing disc, non-rising stem, CLOW resilient wedge valve series. All valves shall be flanged, AWWA 1561, and be NSF approved. The valve body and bonnet encapsulated with urethane rubber. The urethane sealing rubber shall completely cover and be permanently bonded to the cast iron wedge to meet ASTM D429. Closure shall be accomplished by means of corrosion resistant threaded bronze stem and nut, fixed to the disc in such a way as to force the disc seat into the body affecting a bubble tight seal across the disc at

a full pressure differential of 200 psi when the stem is torqued in the desired direction. Delrin thrust bearings shall be located above and below the stem collar.

B. Valve shall have full size waterway with unobstructed flow; stem design shall be all in-line servicing and disc design shall allow for throttling applications. Valves shall conform to the latest revision of AWWA Standard C-509 covering resilient seated gate valves and be UL/FM approved.

C. Above ground and interior valves shall be hand-wheel operated; buried valves shall be nut-operated (2" square). Provide a factory made, hollow pipe, nut operating shaft of the required length, with 9" long handles.

2.5 BALL VALVES

A. Ball valves for in-line or drain service shall be FORD ball valve curb stop, B11 Series, 2" maximum with brass body and spherical fluorocarbon-coated brass ball, solid one piece tee-head and stem, rated 300 psi working pressure and be NSF approved. Valve inlet and outlet shall be equal to the nominal pipe size for in-line service. Provide a valve key of proper length as directed by the Engineer for buried valve operation.

2.6 VALVE BOXES

A. Valve boxes for ball or gate valves shall be ARMOR access boxes 5 1/4" roadway valve box series with lid marked "WATER" to conform to services. Ring shall be full flanged cast iron, and lids shall be cast iron. Bottom section shall be sized to match depth of valve.

2.7 COMPRESSION COUPLINGS

A. Compression couplings for normal use shall be ROMAC Style 501 Ductile Plus couplings, standard center ring length, for appropriate diameter(s), with virgin SBR gaskets compounded for water service, NSF approved, and optional fusion epoxy coating.

2.8 PIPE IDENTIFICATION TAPE

A. Underground type plastic line markers shall be permanent, bright colored, continuous printed plastic tape, intended for direct burial service, not less than 6" wide x 4 mills thick. Provide blue tape with black printing reading "CAUTION WATER LINE BURIED BELOW".

PART 3 – EXECUTION

3.1 GENERAL INSTALLATION

A. The Contractor shall provide domestic waterlines, valves, and other miscellaneous appurtenances as shown on the plans, and as staked by the Engineer. All waterlines and equipment shall be installed in conformance with the manufacturer's recommendations.

B. Pipes shall be well bedded their full length, true to line and grade, and not supported by the joints.

C. During periods when pipe laying is not in progress, the open ends of sections of lines already in place shall be tightly capped to prevent entrance of trench water, mud, dirt, or other foreign substances.

D. Standard concrete thrust blocks shall be placed at all angles, bends, and when fittings are used to change direction (vertical or horizontal) using wet concrete against earth in accordance with manufacturer's recommendations, and/or Engineer's directions. Thrust blocks shall be cured prior to testing the pipe. Standard thrust blocks are in addition to any special thrust blocks as shown on the Drawings.

E. Valves and valve boxes shall be set plumb with the valve box centered on the operator nut. Valve boxes shall be set flush in pavement and gravel roads.

F. When connecting PVC pipe to galvanized pipe, a galvanized steel coupling and a male threaded PVC fitting shall be used unless a compression coupling is utilized for the connection.

3.2 PVC PIPE AND CONDUIT

A. PVC pipe ends shall be squarely cut, all burrs, removed, and reamed inside to provide a smooth flow line. Prior to joining PVC pipe and fittings, the outside of the pipe and the inside of the fitting shall be doped with welding solvent. All joints shall be chemically welded with solvent cement immediately following doping operation. Cement both pipe pieces to be joined and joint quickly. If joint cannot be made up to full depth of socket, cut out and discard. Wipe off excessive cement. Do not move pipe for 30 minutes after making up joint.

B. No pipe shall be laid when the temperature drops below freezing, unless specifically authorized by the Engineer. Special cold weather cements shall be used for cold weather Work. The Contractor shall be responsible for determining the radii of curves in the lines and for providing whatever combination of pipe lengths, and/or standard and special couplings are necessary to complete the Work. No pipe shall be installed under tension.

C. Pipe shall be bedded and partially backfilled between joints only prior to a pressure test. No working pressures shall be placed on the pipe for at least 24 hours after installation.

3.3 GALVANIZED STEEL PIPING

A. Threads for threaded joint piping shall be neatly cut with sharp tools, and joint procedures shall conform with best practice. Before jointing, all scale shall be removed from pipe by some suitable means. After cutting, all pipe shall be reamed. All pipe shall be screwed together with an application of approved pipe compound applied to all male threads; leaded compounds shall not be used. Once a joint has been made up, it shall not be backed off unless threads are recleaned and new compound applied. Teflon tape may be used as an alternative.

B. Unions shall be installed in all threaded joint piping to facilitate removal of sections for maintenance/repair in accordance with best trade practice. All such unions shall be included in bid price whether shown on the Drawings or not.

C. Flanged joints shall be made in accordance with best trade practice. All flanged pipe shall be accurately dimensioned; no "drawing-up" will be allowed. Gaskets shall be synthetic rubber meeting NSF 61 for contact with potable water, either ring type or full face, and 1/8" thick.

3.4 SEWER AND ROAD CROSSINGS

A. All sewer crossings shall be cased as shown on the plans. Casing pipe shall be centered on the sewer line with the water main enclosed in conduit a minimum of 10' perpendicular to the sewer line.

3.5 INSTALLATION OF UTILITY IDENTIFICATION TAPE

A. Install pipe identification tape no deeper than 12" below finished grade, directly above installed water main

3.6 TESTING

A. All pressure pipe systems except HDPE shall be hydrostatically tested for leaks at a pressure of 125 psi, for a period of 2 hours before completion of backfilling. Lines may be waterfilled to expel all air, and high pressure air injected through a 1-way valve to bring pressure up; Contractor shall provide a pressure gauge reading to a maximum of 5# increments. Pressure testing should always be done during early morning hours, or at least in the cooler Part of the day to minimize pressure fluctuations. Pressure loss in excess of 5 psi during the 2 hour test period shall be cause for rejection. The system shall be isolated by capping and/or with gate valves closed. All pipe, valves, fittings, etc., shall be watertight under the test. Any leaks shall be repaired and remedied, and the tests and repairs repeated until the system is watertight to the satisfaction of the Engineer. A final test shall be made in the presence of and to the satisfaction of the Engineer.

B. After final backfilling has been completed, a final pressure test shall be performed by installing a pressure gauge and checking the system at normal hydraulic working pressure. The system shall be isolated (gate valves closed) and shall maintain its pressure for a minimum 30 minutes. This test shall be performed in the presence of the Engineer. Any leaks found at this time shall be repaired.

3.7 FLUSHING

A. Upon completion of each portion of the system, and prior to connecting any facility, the system shall be thoroughly flushed to remove all foreign matter.

3.8 DISINFECTION

A. Before being put into service, all new or repaired portions of any domestic water system shall be disinfected with a dosage of not less than 50 parts per million of chlorine and in accordance with AWWA C651. Sections of the system to be disinfected shall first be flushed at an adequate velocity to remove all solids or contaminated material that may have become lodged in pipe. Such flushing shall be completed prior to installing final hose bibbs, etc.

B. The chlorine mixture shall be inserted into the system in a manner which will insure uniform distribution. This chlorine mixture shall be retained in the system for a minimum of 24 hours. Following chlorination, all treated water shall be thoroughly flushed from the system at its extremities until the replacement water throughout the system shows the absence of the chlorine. No chlorinated water from testing shall be allowed to enter any drainage course within the park because of the toxicity of chlorine to aquatic life. Discharge chlorinated water into area of natural vegetation after utilizing chlorine reducing agent to neutralize the chlorine residual in the water.

C. An adequate method of attaining 50 PPM of chlorine in the system is to estimate the water volume of the system and uniformly mix into it 1 gallon of 5 percent or 6 percent chlorine bleach per 1,000 gallons of water capacity of the system.

D. The Contractor shall furnish all labor and materials necessary to flush and disinfect the system, and this cost shall be incidental to the Contract.

E. After disinfection is complete, the Contractor shall notify the Engineer. At this time, biological tests shall be run, and the acceptability of the water system determined. If contamination is found, the Contractor shall repeat the entire disinfection process until all tests are satisfactory. All testing shall be at the Contractor's expense.

END OF SECTION