

SPOKANE TRANSIT AUTHORITY

**City Line Stations 13, 15, 17–
Riverside Ave**

PROJECT #2021-10602



PROJECT SPECIFICATIONS AND SPECIAL PROVISIONS

Federal Aid Number: WA-2020-009

June 7, 2021



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SECTION 001100 – ADVERTISEMENT FOR BIDS

ADVERTISEMENT FOR BIDS

Sealed bids will be accepted for the following project:

Project No.: 2021-10602
Project Title: City Line Stations 13, 15, 17 – Riverside Ave
Agency: Spokane Transit Authority (STA)
1230 W Boone Ave.
Spokane, WA 99201
Project Manager: Rob Bielaski
Capital Project Manager
rbielaski@spokanetransit.com
(509) 344-1868
Public Bid Opening: 3:00 PM, Wednesday, June 30, 2021
Spokane Transit Authority
1230 W. Boone Ave, Spokane, WA 99201

Sealed bids are due by 3pm on 6/30/21 at STA's headquarters located at 1230 W. Boone Avenue, Spokane, WA. To maintain social distancing a Webex will be held for the public bid opening. The Webex will begin at 4pm and bids will be opened starting at 4:10pm.

To join the Webex meeting click on the link below or copy and paste the link in your web browser

<https://spokanetransit.webex.com/spokanetransit/j.php?MTID=mcfd4406da0a26b8afb516c9cad6b42e>

To join by phone: United States Toll +1-408-418-9388
Meeting number (access code): 187 032 2812
Meeting password: CLRiverside

Pre-Bid Meeting: 10:00 AM, Tuesday, June 15, 2021
Pre-bid meeting will be held via Webex. To join the Webex meeting click on the link below or copy and paste the link in your web browser.

<https://spokanetransit.webex.com/spokanetransit/j.php?MTID=m55b6f2c0e3c2c6e5f72ca087c824243c>

To join by phone: United States Toll +1-408-418-9388
Meeting number (access code): 187 406 2742
Meeting password: CLRiverside

Project Summary: The project scope of work includes construction of three City Line bus stations at three separate locations on Riverside Ave in downtown Spokane. Scope items include demolition, traffic control, electrical and communications conduit, footings for future bus stop amenities, concrete curb, concrete bus platform, asphalt roadway. roadway striping and signing.

Please direct all questions regarding this project to the Project Manager stated above.

Bidders may obtain electronic copies of plans and specifications from the Project Manager. Plans and specifications may be viewed at several local plan centers.

State of Washington prevailing wage rates are applicable for this public works project located in Spokane County. Bidders are responsible to verify and use the most recent prevailing wage rates. The “Effective Date” for this project is the Bid Form due date above. The applicable prevailing wage rates may be found on the Department of Labor & Industries website located at:

<https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx>.

Federal Assistance and/or other special requirements apply to this project. The Bidder will be required to comply with Section 007200.3 - Federal Terms & Conditions, as applicable. Please direct questions regarding this subject to the Project Manager.

No Bidder may withdraw their bid after the bid due date and time unless contract award is delayed for a period exceeding ninety (90) days.

The Agency reserves the right to accept or reject any or all bids and to waive informalities in the solicitation process.

Use of Minority and Women’s Business Enterprise (MWBE) contractors and suppliers is encouraged, but not mandatory. Bidders may contact the Office of Minority and Women's Business Enterprise at <http://OMWBE.wa.gov/> to obtain information on certified firms. Bidders may also utilize Veteran-owned Businesses at <http://www.dva.wa.gov/program/certified-veteran-and-servicemember-owned-businesses>.

Spokane Transit Authority is an Equal Employment Opportunity (EEO) organization which does not discriminate on the basis of race, color, creed, national origin, sex, sexual orientation, gender identity, or presence of any sensory, mental or physical disability in the consideration of contract award. The successful Bidder will be required to comply with all federal, state and local EEO laws and regulations.

Spokane Transit Authority assures nondiscrimination in accordance with Title VI of the Civil Rights Act of 1964. For more information, visit www.spokanetransit.com.

Upon request, alternative formats of this information will be produced for individuals with disabilities. The public bid opening facility is accessible for individuals using wheelchairs. For other accommodations, please call (509) 325-6094 (TTY WA Relay 711) at least forty-eight (48) hours in advance.

END OF SECTION 001100

SECTION 002100 – INSTRUCTIONS TO BIDDERS

DEFINITIONS

- A. **Addenda** are written or graphic instruments, approved and issued by the Owner prior to the time designated for opening of bids, which amend, modify or interpret the solicitation documents by identifying additions, deletions, clarifications or corrections.
- B. **Alternate** or **Alternate Bid** is the amount stated in the Bid to be added or deducted from the amount of the Base Bid if the corresponding change in project scope or materials or methods of construction described in the solicitation documents is accepted.
- C. **Architect, Engineer** or **A/E** means a person or entity lawfully entitled to practice architecture or engineering, representing Owner within the limits of its delegated authority.
- D. **Base Bid** is the sum stated in the Bid for which the Bidder offers to perform the work described as the Base, to which work may be added or deducted from sums stated in Alternate Bids (if any).
- E. **Bid** is the submission of a complete and properly signed Bid Proposal Form together with a bid guarantee, when applicable, and the certifications and representations required to comply with this solicitation.
- F. **Bidder** is one who submits a Bid for a Contract with the Owner for the Work described in the construction documents.
- G. **Bid Proposal Form** is the form provided in Section 004213 of this solicitation.
- H. **Contract** is the formal written executed agreement between Owner and Contractor authorizing Contractor to perform the Work in accordance with the Contract Documents.
- I. **Contractor** is the Bidder who has been awarded a Contract to perform the Work in accordance with the Contract Documents.
- J. **Contract Documents** means the Advertisement for Bids, Instructions to Bidders, executed Bid Proposal Form and Bidder certifications, Contract, General Conditions, Modifications to the General Conditions, Supplemental Conditions, Federal Terms & Conditions, Drawings, Specifications, any addenda and/or modifications thereof, any or all supporting documentation required by the above, special forms, or as requested by Owner.
- K. **Federal Assistance** means project funding provided, in whole or in part, by the US Department of Transportation, Federal Transit Administration (“FTA”).
- L. **Non-responsive Bid** means any Bid which fails to conform in all respects to the material requirements of this solicitation, imposes conditions which would modify requirements of this solicitation, or would limit a Bidder's liability to the Owner so as to give the Bidder an advantage over other Bidders as determined by the Owner.
- M. **Owner** means the Spokane Transit Authority, “STA” or its authorized representative with the authority to enter into, administer and/or terminate the Work in accordance with the Contract Documents, and make related determinations and findings.
- N. **Responsible Bidder** means a contractor who meets the criteria listed in RCW 39.04.350.
- O. **Unit Price** is an amount stated in the Bid as a price per unit of measurement or materials or services as described in the construction documents as defined in the General Conditions of the Contract.

PART 1 - GENERAL

1.1 INTRODUCTION

- A. Scope of Work. The general description and scope of work for the project can be found in Section 003100 of this solicitation.
- B. Schedule. Work may begin when the Contractor receives a formal “Notice to Proceed.” Contractor shall proceed with promptness and dispatch and shall **substantially complete the project on or before November 19, 2021**.
- C. Public Records. Materials submitted in response to this competitive procurement shall become the property of Spokane Transit Authority. All received Bids shall be deemed public records as defined in Chapter 42.56 RCW *Public Records Act*. Any information in the Bid that the Bidder desires to claim as confidential and exempt from disclosure under the provisions of state law shall be clearly designated as “Confidential”. Each page claimed to be exempt from disclosure must be clearly identified by the word “Confidential” printed on it. Marking the entire Bid exempt from disclosure will not be honored. STA will consider a Bidder’s request for exemption from disclosure; however, STA will make a decision predicated upon state law and regulations. If any information is marked as Confidential in the Bid, it will not be made available until the affected Bidder has been given a reasonable opportunity to seek a court injunction against the requested disclosure. STA assumes no liability for disclosure of Confidential material submitted by Bidders. Bid submittals shall be considered public documents under applicable Washington state law and shall be available for inspection and copying by the public, except to the extent portions of the submittals are otherwise protected under applicable law. Each Bidder will be responsible for protecting any disclosure of its submittal under applicable law.
- D. Request for Information. Any prospective Bidder desiring an explanation or interpretation of this solicitation, drawings, specifications, etc., must submit a request in writing to the A/E seven (7) calendar days before the bid due date. Oral explanations or instructions given before the award of Contract will not be binding. Any information given a prospective Bidder concerning a solicitation will be furnished promptly to all other prospective Bidders by addendum to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective Bidders.
- E. Disadvantaged Business Enterprise. STA is committed to ensuring that all firms regardless of race, color, sex or national origin have equal opportunity to participate in STA contracts. Therefore, STA has established an annual agency goal for Disadvantaged Business Enterprise (DBE) participation in its contracting opportunities. In accordance with the legislative findings and policies set forth in Chapter 39.19 RCW, STA encourages participation in all of its contracts by Minority Business Enterprises (MBE), Women Owned Business Enterprise (WBE), and Minority Women Owned Business Enterprise (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 contractor submitting bids. 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 DBE/MBE/WBE/MWBE participation shall be 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.

1.2 PREPARATION OF BIDS – CONSTRUCTION

- A. Bids must be: (1) submitted on the Bid Proposal Form, or copies thereof, furnished by Owner or Owner’s agent, and (2) signed in ink. The person signing a Bid must initial each change appearing on any Bid Proposal Form. If the Bid is made by a corporation, it shall be signed by the corporation’s authorized designee. The address of the Bidder shall be typed or printed on the bid form in the space provided.
- B. The Bid Proposal Form may require Bidders to submit bid prices for one or more items on a varying basis, including: (1) lump sum base bid; (2) lump sum bid alternate prices; (3) unit prices; or (4) any combination of items 1 through 3 above.
- C. If the solicitation includes alternate bid items, failure to provide a price on any Alternates may disqualify the Bid. If bidding on all items is not required, Bidders should insert the words “No Bid” in the space provided for any item on which no price is submitted.
- D. Substitute bid proposals will not be considered unless this solicitation authorizes their submission.
- E. **This project is partially federally funded** therefore the Contractor must read and consider all federal clauses and requirements in the bid. By submitting a bid proposal, the Contractor acknowledges that it accepts terms, conditions, and requirements of federally funded projects.

1.3 BID PRICES

- A. The bid prices shown for each item on the Bid Proposal Form shall include all labor, material, equipment, overhead and compensation to complete all of the work for that item.
- B. The actual cost of building permit (only) and the public utility hookup fees will be a direct reimbursement to the Contractor or paid directly to the permitting agency by the Owner. Fees for these permits should not be included by the Bidder in the bid amount.
- C. The Bidder agrees to hold all Bid prices for ninety (90) days from date of bid opening.

1.4 ADDITIVE OR DEDUCTIVE BID ITEMS

- A. If applicable, the low Bidder, for purposes of award, shall be the responsive Bidder offering the low aggregate amount for the Base Bid, plus Alternates selected by the Owner, and within funds available for the project.
- B. The Bidder agrees to hold all Alternate prices for ninety (90) days from date of bid opening, if applicable.

1.5 TAXES

- A. **RULE 171 – WAC 458-20-171** - This Project qualifies as “public road construction” as described in WAC 458-20-171 (“Rule 171”), and therefore only materials used or consumed by the Contractor are subject to sales tax. **The bid amount in Section 004213 – Bid Proposal Form must include all Washington State Sales Tax.**

The Contractor shall pay all taxes, including sales tax, for the work or portions thereof provided by the Contractor and such taxes shall be included in the Contract amount. State of Washington sales tax is payable on the “selling price” or “gross proceeds of sale” of the “tangible personal property” as these terms are defined in WAC 458-20-107 (Rule 107), except as excluded by WAC 458-20-171.

Contractors are advised that they are considered the end consumers of all material, including prefabricated and pre-cast items, equipment and supplies used or consumed by them in performing the Work, and must pay any applicable retail sales tax/use tax to their material men and suppliers. In order to maximize the sales tax exemption, Contractors are encouraged to have all material delivered to the job site for consumption. If the Contractor has questions about the application of Rule 171, the Contractor is advised to contact the Washington State Department of Revenue. However, any such communications must be communicated to STA's Director of Finance, prior to making contact with the Department of Revenue.

The Contract Amount must include labor, overhead, profit and applicable sales tax on material, pursuant to Rule 171. Contractors are cautioned against paying sales tax more than once on materials used or consumed, such as by paying sales tax to material men or suppliers, and again remitting sales tax to the state on total costs.

All applicable taxes which the Contractors are required to pay, including retail sales/use tax as specified above, shall be included by them in the Bid prices for the Work covered by their Bid. No adjustment will be made in the amount to be paid by STA under the Contract because of any misunderstanding by, or lack of knowledge of, the Bidder as to their liability for, or the amount of, any taxes or because of any increases in tax rates imposed by any federal, state or local government.

1.6 BID GUARANTEE

- A. When the sum of the Base Bid plus all Alternates is \$35,000.00 or less, a bid guarantee is not required. When the sum of the Base Bid plus all Alternates is greater than \$35,000.00, a bid guarantee in the amount of five percent (5%) of the Base Bid amount is required. Failure of the Bidder to provide a bid guarantee when required shall render the Bid non-responsive.
- B. Acceptable forms of bid guarantee are: A bid bond, U. S. postal money order, or certified check or cashier's check made payable to Spokane Transit Authority. The Owner will return bid guarantees (other than bid bond) to unsuccessful Bidders as soon as practicable, but not sooner than the execution of a contract with the successful Bidder. The bid guarantee of the successful Bidder will be returned to the successful Bidder with its official notice to proceed with the Work.
- C. The Bidder will allow ninety (90) days from the bid opening date for acceptance of its Bid by the Owner. The Bidder will return to Owner a signed Contract, insurance certificate and requisite bond(s) or bond waiver within fifteen (15) days after receipt of the Contract. If the apparent successful Bidder fails to sign all contract documents, provide the bond and insurance as required, or return the documents within fifteen (15) days after receipt of the Contract, the Owner may terminate the award of the Contract.
- D. In the event a Bidder discovers an error in its Bid following the bid opening, the Bidder may request to withdraw its Bid under the following conditions:
 1. Written notification is received by the Owner within twenty-four (24) hours following bid opening.
 2. The Bidder provides written documentation of the claimed error to the satisfaction of the Owner within seventy-two (72) hours following the bid opening.

The Owner 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 Owner without penalty. If it is disapproved, the Owner may retain the Bidder's bid guarantee.

1.7 ACKNOWLEDGEMENT OF ADDENDA

Bidders shall acknowledge receipt of all addenda to this solicitation by identifying the addenda numbers in the space provided for this purpose on the Bid Proposal Form. Failure to do so may result in the bid being declared non-responsive.

1.8 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

- A. The 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 solicitation. 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. If Bidder is unable to attend the scheduled optional pre-bid meeting, please contact STA to arrange a separate site visit.

1.9 LIQUIDATED DAMAGES

The Contractor agrees to pay to STA liquidated damages in the amount of \$1,120 for each Day the Contractor fails to provide services or respond to an STA request for services hereinafter provided. These liquidated damages are for the purpose of any delay or impact caused to STA by virtue of the Contractor's acts or omissions and do not cover any other actual or consequential damages other than delay. STA and the Contractor agree that such damages cannot be reasonably determined at this time. Such damages are very difficult to accurately estimate because of numerous factors, including, but not limited to inconvenience to STA. Further, the Parties agree this is a reasonable forecast of all factors now known and available for consideration relating to the delay caused by Contractor's failure to perform. Liquidated damages shall be deducted from the Contract by Change Order.

1.10 PREVAILING WAGE

- A. The Work for this project constitutes a public work under RCW 39.04 Public Works and is subject to Federal Assistance. As such, the Contractor shall pay the greater of the highest prevailing wage rate set forth in accordance with either the Davis Bacon and Related Acts or Washington State Department of Labor and Industries. See Section 007200.1 Public Works General Conditions.
- B. Effective January 1, 2020, RCW 39.12 now requires all Contractors, Subcontractors, and employers to file a copy of its certified payroll records using the department of labor and industries' online system at least once a month. Please refer to RCW 39.12.120 and Section 007200.1 General Conditions for more information.
- C. Because this work is partially federally funded, the Contractor is required to submit certified payroll records on a weekly basis through Labor and Industries' online system. Refer to Section 007200.3 Federal Terms and Conditions and section 007200.1 General Conditions for more information.

1.11 SUBMISSION OF BIDS

- A. Bids must be submitted on or before the time specified in the Advertisement for Bids or as extended by written addenda to this solicitation.
- B. Bids shall be submitted in a sealed envelope addressed to the office specified in the Advertisement for Bids. Oral, telephonic, electronic or facsimile bids are invalid and will not receive consideration. The envelope shall have printed on the outside:
 - 1. The project number and description.
 - 2. The name and address of the Bidder.
 - 3. Identification as Bid Proposal.
- C. **Bids will be accepted no later than 3:00 pm on the bid date at the reception desk located in STA’s Administrative Facility which is located on the North side of the street at 1230 W. Boone Avenue, Spokane, Washington.** Prior to the bid opening, the Owner’s representative will designate the official bid clock. Any part of the Bid or Bid modification not received prior to the times specified, per the designated bid clock, will not be considered and the Bid will be returned to the Bidder unopened.
- D. A Bid may be withdrawn in person by the authorized representative of the Bidder before bid opening. The representative of the Bidder will be required to show ID and sign the bid summary sheet before the Bid will be released to Bidder.
- E. Individuals with disabilities who wish to request special accommodation, (e.g., sign language interpreters, Braille, etc.) need to contact the Owner ten (10) working days prior to the scheduled bid opening.

1.12 CONSIDERATION OF BIDS

- A. Owner shall have the right to reject any or all Bids, to reject Bids considered non-responsive, including but not limited to, Bids not accompanied by any required bid guarantee, Bidder certifications or data required by the solicitation, or a Bid not signed by the Bidder’s authorized representative.
- B. The Owner shall have the right to waive any informality or irregularity in any Bid received.
- C. In the event that a single Bid is received, Owner will conduct a cost/price analysis of the Bid. This analysis will compare the price and quality of the proposed equipment with that involved in recent similar purchases with similar specifications made by this or other governmental agencies in an attempt to determine the competitive integrity of the submitted Bid.

1.13 BID RESULTS

After the bid opening, Bidders may obtain bid results from the Owner.

1.14 RESPONSIBLE BIDDER

- A. To be considered a “Responsible Bidder”, at the time of Bid submittal, Bidders must meet all requirements specified in Section 004512 *Bidder Responsibility Criteria*.
- B. Supplemental Responsibility Criteria: In addition to the mandatory Bidder responsibility criteria, the Owner may adopt relevant supplemental criteria for determining Bidder responsibility applicable to a project which the Bidder must meet. Where applicable, such supplemental criteria shall be attached to this solicitation.

1. At least seven (7) days prior to the bid submittal deadline, a potential Bidder may request the Owner modify the supplemental responsibility criteria. The Owner 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 supplemental responsibility criteria, the Owner will issue an addendum to this solicitation identifying the new and/or modified criteria.
 2. Upon Owner's request, the apparent low Bidder must supply the requested responsibility information within two (2) business days of request by Owner. Withholding information or failure to submit all the information requested within the time provided may render the Bid non-responsive.
 3. Upon request of the Owner, a Bidder whose Bid is under consideration for award of Contract shall submit promptly satisfactory evidence of his/her financial resources, experience, organization, and equipment available for performance of the Contract on AIA Form A305 "Contractor's Qualification Statement" or similar form approved by the Owner.
- C. Not-responsible Bidder Notification.
1. If the Owner determines that the apparent low Bidder is not responsible, the Owner will notify the Bidder of its preliminary determination in writing.
 2. Within three (3) days after receipt of the preliminary determination, the Bidder may withdraw its Bid or request a hearing where the Bidder may appeal the preliminary determination and present additional information to the Owner.
 3. The Owner will schedule a hearing within three (3) working days of receipt of the Bidder's request. The hearing members will include a STA Executive or their designee, and Project Manager.
 4. The Owner will issue a final determination after reviewing information presented at the hearing.
 5. If the Owner determines a Bidder to be not responsible, the Owner will provide, in writing, the reasons for the determination. If the final determination affirms that the Bidder is not responsible, the Owner will not execute a Contract with any other responsible Bidder until two (2) business days following submittal of the final determination to the not responsible Bidder.
 6. The Owner's final determination is specific to this project and will have no effect on other or future projects.

1.15 CONTRACT AWARD

- A. The Owner will evaluate Bid responsiveness and responsibility.
1. A Bid will be considered responsive if it meets the following requirements:
 - a. It is received at the proper time and place.
 - b. It meets the stated requirements of this solicitation.
 - c. It is accompanied by a bid guarantee, when required.
 2. A Bid will be considered responsible if it meets the following requirements:
 - a. 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 on Public Works projects as determined by the Department of Labor and Industries; and

- b. It meets the mandatory responsibility criteria established in RCW 39.04.350 for prime contractors and subcontractors and an overall accounting of the supplemental responsibility criteria established for the project.
- B. The Owner reserves the right to accept or reject any or all Bids and to waive informalities.
- C. The Owner may negotiate Bid price adjustments with the low responsive Bidder, including changes in the Contract Documents, to bring the Bid within the available funding per RCW 39.04.015.
- D. The apparent low Bidder, for purpose of award, shall be the responsive and responsible Bidder offering the low aggregate amount for the Base Bid plus selected Alternates and meeting all other bid submittal requirements.
- E. The Contract will only become effective when signed by the Owner. Prior to the Owner's signature, any and all costs incurred shall be the sole responsibility of the Bidder.
- F. The Contractor must purchase and maintain insurance coverages as stated in Section 007200.1 *General Conditions*.
- G. Note: AIA Payment Bond and Performance Bond forms (A312) are required. These forms will not be provided by the Owner.

1.16 CONTRACT DOCUMENTS

- A. The Contract Documents under which it is proposed to execute this work consists of all material bound herein, plus any addenda incorporated into the documents.
- B. The Contract Documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the Work. Any person contemplating the submission of a Bid shall have thoroughly examined all of the various parts of the Contract Documents, and should there be any doubt as to the meaning or intent of the Contract Documents, the Bidder should request in writing to the A/E at least seven (7) working days prior to bid opening, an interpretation thereof. Any interpretation or change in the Contract Documents will be made only in writing, in the form of an addendum to the Contract Documents and will be furnished to all prospective Bidders receiving a set of documents, who shall indicate receipt of same in the space provided on the Bid Proposal Form. The Owner will not be responsible for any other explanation or interpretation of said documents.

1.17 DISCREPANCIES & CONTRACT DOCUMENT REVIEW

- A. The intent of Spokane Transit Authority and Federal Funded Project Contract Documents is to describe a complete Project. These Contract Documents are complimentary. What is required by one part of the Contract Documents shall be binding as if required by all.
- B. In the event of a discrepancy between Spokane Transit Authority and Federal Funded Project Contract Documents, the Contractor will use the Contract Document that imparts the highest cost to their Bid and/or longest delay in their schedule. It is the responsibility of the Contractor to bring these discrepancies to the attention of Spokane Transit Authority as soon as they are discovered.

1.18 PROTEST PROCEDURES

STA maintains a set of protest procedures. If any Bidder desires this information, it may be obtained by calling Jacqueline Tjards, Purchasing Manager, at (509) 325-6032.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION 002100

SECTION 003100 – PROJECT DESCRIPTION AND SCOPE OF WORK

PROJECT DESCRIPTION

This federally funded public works project consists of construction of three City Line bus stations at three separate locations on Riverside Ave in downtown Spokane. Scope items include demolition, traffic control, electrical and communications conduit, footings for future bus stop amenities, concrete curb, concrete bus platform, asphalt roadway, roadway striping and signing.

PROJECT LOCATION

The three project sites are along the north curblineline of Riverside Avenue in downtown Spokane. The locations are: Riverside and Stevens, Riverside and Bernard, and Riverside and Division.

PROJECT SCHEDULE

Work may begin when the Contractor receives a formal, written “Notice to Proceed”. Contractor shall proceed with promptness and dispatch and shall substantially complete the project on or before November 19, 2021.

The Contractor will need to coordinate a specific schedule for each station location with the City of Spokane. The City of Spokane will not permit construction at Station 13 to begin before Hoopfest (September 11-12). The City of Spokane has discretion in issuing obstruction permits at all station locations

Interim Completion may be granted for individual project locations provided that all work at the location is complete. If Interim Completion is granted by the Owner, the contractor shall be relieved of responsibility for the location and Owner shall assume the same. A final Certificate of Completion may not be issued by the City of Spokane until the station amenities are installed. The warranty period, as described in the Contract Documents shall commence upon issuance of Interim Completion by Owner.

PROJECT EXCLUSIONS

None

PROJECT GENERAL SCOPE OF WORK

The project shall generally consist of:

1. Obtain and pay for all required fees and permitting
2. Establish and maintain jobsite safety, security, and traffic control measures.
3. Comply with all applicable COVID-19 rules and regulations as set for by Washington State Department of Labor and Industries relating to construction activities.
4. Establish and maintain temporary erosion control measures.
5. Protect existing utilities as directed in the project drawings.
6. Remove and dispose of excess material.
7. Construct new electrical and communications conduit and handholes
8. Construct new footings for future platform amenities
9. Construct new concrete bus platform.
10. Install Railing.
11. Record all “as-built” information for delivery to Agency as required for final closeout.
12. All work to be completed as shown and specified on the associated plan and specifications for the project.

PROJECT-SPECIFIC NOTES

- All work shall meet or exceed all applicable codes, utility locating, rules and regulations, as set forth by the City of Spokane, Spokane County and the State of Washington.
- Contractor is responsible for the supply of all equipment, materials and labor, and otherwise do all things necessary for or incidental to completion of the Project.
- Contractor is responsible for making arrangements for staging of materials and equipment, if necessary.
- Contractor shall be responsible for the removal of all trash and waste materials from this project. All items that are disposed of shall be approved by the Project Manager and/or designee. Damages resulting from Contractor negligence shall be repaired immediately at no cost to STA. The Contractor shall take all precautions necessary to protect private property and the public during the construction period.
- All work will be subject to inspection and acceptance by STA's project manager or their designee prior to payment.
- STA reserves the right to increase or decrease the amount of related services listed in the scope of work for a fairly negotiated price.

END OF SECTION 003100

SECTION 004200 – BID SUBMITTAL CHECKLIST

This checklist *must be completed in its entirety, signed and included* with submittal of your signed Bid Proposal Form. Failure by Bidder to properly complete, sign and include this checklist with its Bid Proposal Form shall render the Bid non-responsive and shall be grounds for rejection of the Bid.

CHECKLIST

- Section 004200 Bid Submittal Checklist
- Section 004213 Bid Proposal Form
- Section 004215 Bid Response Form
- Section 004512 Bidder Responsibility Criteria
- Section 004546.A Buy America Certificate
- Section 004546.B Lobbying Certificate
- Section 004546.C Disadvantaged Business Enterprise Participation
- Section 004546.D Suspension & Debarment Certificate
- Section 004546.E Certificate of Wage Compliance
- Section 004546.F Federal Cargo Certification
- Bid Guarantee See subsection 1.6 of Section 002100 Instructions to Bidders.
- Bid submitted in a sealed envelope identifying the following on the front of the envelope:
 - Project Name: City Line Stations 13, 15, 17 – Riverside Ave
 - Contract Number: 2021-10602
 - Bidder Name:
 - Bidder Address:

If Bid is submitted via mail, the sealed envelope required above shall be in addition to the envelope used for mailing.

STATEMENT OF COMPLIANCE

The undersigned has reviewed and fully understands the required Bid Documents and this Bid Submittal Checklist and certifies that all required documents, as marked herein and required by the specifications, are included in its Bid Proposal.

Authorized Signature: _____ Date: _____

Name: _____ Title: _____

Bidder Name: _____

END OF SECTION 004200

SECTION 004213 – BID PROPOSAL FORM

Bidder Name: _____

Each Bid item below shall constitute an offer to STA as outlined herein. By executing below and submitted its Bid, Bidder acknowledges no Bidder may withdraw its Bid after the hour and date set for the bid opening except as permitted by Section 002100, Instructions to Bidders.

STA reserves the right to accept or reject any or all Bids within ninety (90) days of the Bid Due Date. Bidder understands and agrees any additional taxes, permits, bonds, business licenses, contractor registrations, prevailing wages, certifications and fees, and any other ancillary charges, as applicable, have been included in the respective Bid item.

Basis of Award. The “Lowest Bid” shall be lowest sum of the Base Bid and accepted Alternates, if any. Award of Contract, if any, shall be to the responsive and responsible Bidder submitting the Lowest Bid.

In compliance with the Contract Documents, the following Bid Proposal is submitted:

TOTAL BID:	
	\$
(Please print dollar amount in space above)	Total for all work INCLUDING Washington State Sales Tax

UNIT PRICES (INCLUDING SALES TAX)

Provide unit prices for the following items:

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL AMOUNT
1	Station 13 – Riverside and Stevens	LUMP SUM	1		
2	Station 15 – Riverside and Bernard	LUMP SUM	1		
3	Station 17 – Riverside and Division	LUMP SUM	1		
4	Preparation of Construction Quality Control Plan and Implementation by Quality Control Supervisor	ALLOWANCE	1	\$150,000	\$150,000
CONTRACT TOTAL:					

ALTERNATES	<i>Specify additive or deductive.</i>
{There are no bid alternates on this project}	<input type="checkbox"/> Add <input type="checkbox"/> Deduct \$
(Please print dollar amount in space above)	INCLUDING Washington State Sales Tax

The undersigned agrees to perform the Work in accordance with the Contract Documents as bid herein.

Signature: _____

Date: _____

Name: _____

END OF SECTION 004213

SECTION 004215 – BID RESPONSE FORM

Bidder Name: _____

The Bid shall constitute an offer to STA as outlined herein and in the Bid Proposal Form. No Bidder may withdraw its Bid following the Bid Due Date, except as allowed under Section 002100 – Instructions to Bidders.

1. EXAMINATION OF DOCUMENTS

A. Having carefully examined all Contract Documents, **as well as the site and local conditions affecting the Work**, the undersigned proposes to perform all Work in accordance with the Contract Documents for compensation to be computed from prices submitted on the Bid Proposal Form.

B. Receipt of the following Addenda is hereby acknowledged:

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

C. STA reserves the right to reject any or all Bids, portions or parts thereof, and to waive minor informalities in the Bid process.

2. TIME FOR COMPLETION

The Bidder agrees to coordinate the substantial completion of all Work on or before November 19, 2021.

3. FREIGHT

Bid prices shall include all freight costs to each project site and shall be FOB Destination.

4. ANTI-KICKBACK

No officer or employee of STA, having the power or duty to perform an official act or action related to this Bid, shall have or acquire any interest in this submittal, or have solicited, accepted or granted a present or future gift, favor, service or other thing of value from or to any person involved in this Bid.

5. FEDERAL DEBARMENT

The undersigned represents that the Bidder and all offices with any controlling interest herein are not currently, and have not previously, been on any debarred bidders list maintained by the United States Government.

6. UBI CERTIFICATION

I CERTIFY that no final determination of violation of RCW 50.12.070(1)(b) or 82.32.070(1)(b) has been made by the Washington State Departments of Employment Security, Labor and Industries or Revenue respectively dated within two (2) years of the Bid Due Date. I understand further that no Bid may be submitted, considered or contract awarded for a public work to any person or entity that has a determination of violation of the above reference statutes within two (2) years from the date that a violation is finally determined and the Bid Due Date.

7. AWARD OF CONTRACT

- A. If written notice of acceptance of all or part of this Bid is mailed, sent electronically or delivered to the undersigned within ninety (90) Days after the Bid Due Date, the undersigned will, within **fifteen (15) Days** after date of such notice, execute and deliver to Owner the Contract as specified and furnish all requisite documentation including, but not limited to, Certificates of Insurance (send to coi@spokanetransit.com) and Payment and Performance Bonds, as required. Payment & Performance Bonds must be submitted in their original form. Electronic copies will not be accepted.
- B. If the undersigned fails to complete the above requirements, the Bidder's Guarantee shall be forfeited to the Owner.

I CERTIFY, to the best of my knowledge, the information contained in this Bid is accurate and complete and that I have the legal authority to commit this firm to a contractual agreement. I realize the final funding for any service is based upon budget levels and the approval of the Spokane Transit Authority's Board of Directors.

Bidder Name: _____
(as registered with the State of Washington)

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

1. BIDDER ADMINISTRATIVE INFORMATION

Company Name: _____
(as registered with the State of Washington)

Physical Address: _____

Mailing Address: _____

Telephone: _____ Fax: _____

Primary Contact: _____

Phone: _____ Email: _____

Washington Contractor License No.: _____

Washington UBI No.: _____

Washington Industrial Insurance Account No.: _____

Federal Tax Identification No.: _____

2. BIDDER INSURANCE COMPANY

Agency Name: _____

Mailing Address: _____

Telephone: _____ Fax: _____

Primary Contact: _____

Phone: _____ Email: _____

3. BIDDER SURETY

Surety Name: _____

Mailing Address: _____

Telephone: _____ Fax: _____

Primary Contact: _____

Phone: _____ Email: _____

I certify the information above is true and correct:

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

BIDDER QUALIFICATION STATEMENT

The following statements of experience, personnel, equipment, and general qualifications of the Bidder are submitted with the assurance that the Owner can rely on its accuracy and truthfulness. If more space is required for your answers, please attach a continuation sheet(s) to the corresponding bid response page referencing the item number.

1. The Company has been in business continually since _____ (month & year).
2. The Company has experience equivalent to that required under this Invitation for Bid:
 - a. As a prime contractor for _____ years.
 - b. As a subcontractor for _____ years.
3. List below work previously completed that is equal to or greater than the scope and complexity of that required under this Invitation to for Bid.

Year	Project Name	Project Location	Contract \$	Project Owner & contact info

4. List supervisory personnel and/or project manager(s) currently employed by the Bidder that will be responsible for the Work on this project. Attach a brief (1 page maximum) resume for each individual listed.

Name	Title	Experience (years)

5. List all projects and/or contracts the Bidder has undertaken in the previous five (5) years which have resulted in:

a. Arbitration or litigation:

Year	Project Name	Project Location	Project Owner & contact info

b. Claims and/or violations filed by the Federal Government and/or the State of Washington Department of Labor & Industries, Department of Revenue or Employment Security Department:

Year	Project Name	Project Location	Project Owner & contact info

c. Liens filed by suppliers and/or subcontractors:

Year	Project Name	Project Location	Project Owner & contact info

I certify the information above is true and correct:

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

SUBCONTRACTOR LIST

The Owner requests the Bidder list subcontractors and consultants, if applicable, of each work discipline applicable to the performance of Work. If no subcontractors and/or consultants are listed, it will be considered the Bidder's affirmation that it does not intend to use any subcontractors and/or consultants in its performance of the Work.

For projects that are estimated to exceed \$1 million dollars, in accordance with RCW 39.30.060, Bidders may submit (1) within one (1) hour after the Bid Due Date, the names of subcontractors with whom the Bidder, if awarded a Contract, will subcontract with for the performance of HVAC (heating, ventilation, and air conditioning), plumbing as described in RCW 18.106, and electrical as described in RCW 19.28, or to name itself for the work; and (2) within forty-eight (48) hours after the Bid Due Date, the names of subcontractors with whom the Bidder, if awarded a Contract, will subcontract with for the performance of structural steel installation and rebar installation.

For additional consultants and/or subcontractors, attach copies of the second page of this Subcontractor List.

Type of work: _____	
Company Name: _____ (as registered with the State of Washington)	
Physical Address: _____	
Mailing Address: _____	
Telephone: _____	Fax: _____
Primary Contact: _____	
Phone: _____	Email: _____
WA Contractor License No.: _____	WA UBI No.: _____
WA Industrial Insurance Account No.: _____	Federal Tax Id No.: _____

Type of work: _____	
Company Name: _____ (as registered with the State of Washington)	
Physical Address: _____	
Mailing Address: _____	
Telephone: _____	Fax: _____
Primary Contact: _____	
Phone: _____	Email: _____
WA Contractor License No.: _____	WA UBI No.: _____
WA Industrial Insurance Account No.: _____	Federal Tax Id No.: _____

Type of work: _____	
Company Name: _____ (as registered with the State of Washington)	
Physical Address: _____	
Mailing Address: _____	
Telephone: _____	Fax: _____
Primary Contact: _____	
Phone: _____	Email: _____
WA Contractor License No.: _____	WA UBI No.: _____
WA Industrial Insurance Account No.: _____	Federal Tax Id No.: _____

Type of work: _____	
Company Name: _____ (as registered with the State of Washington)	
Physical Address: _____	
Mailing Address: _____	
Telephone: _____	Fax: _____
Primary Contact: _____	
Phone: _____	Email: _____
WA Contractor License No.: _____	WA UBI No.: _____
WA Industrial Insurance Account No.: _____	Federal Tax Id No.: _____

Type of work: _____	
Company Name: _____ (as registered with the State of Washington)	
Physical Address: _____	
Mailing Address: _____	
Telephone: _____	Fax: _____
Primary Contact: _____	
Phone: _____	Email: _____
WA Contractor License No.: _____	WA UBI No.: _____
WA Industrial Insurance Account No.: _____	Federal Tax Id No.: _____

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

SECTION 004512 – BIDDER RESPONSIBILITY CRITERIA

In accordance with RCW 39.04.350, a Bidder must meet the following responsibility criteria to be considered a responsible bidder and qualified to be awarded a public works project. The Bidder must at the time of bid submittal:

1. Have a certificate of registration in compliance with chapter 18.27 RCW;
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 Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW;
4. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter [39.12](#) RCW. The training must be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the Department. Bidders that have completed three (3) or more public works projects, have had a valid business license in Washington for three (3) or more years, and are listed on the Department of Labor and Industries exemption list are exempt from this training requirement;
5. Within the three (3) year period immediately preceding the date of the bid solicitation, not have been 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, to have willfully violated, as defined in RCW [49.48.082](#), any provision of chapter [49.46](#), 49.48, or [49.52](#) RCW; and
6. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).

In accordance with RCW 39.06, a public works contractor must verify responsibility criteria for each first-tier subcontractor, and a subcontractor of any tier that hires other subcontractors must verify responsibility criteria for each of its subcontractors. Verification shall include that each subcontractor, at the time of subcontract execution, meets the responsibility criteria and possesses an electrical contractor license, if required by RCW 19.28, or an elevator contractor license, if required by RCW 70.87. This verification requirement, as well as the responsibility criteria, must be included in every public works contract and subcontract of every tier.

Providing the following information is **MANDATORY** in order to meet “Responsible Bidder” requirements. Failure to provide this information may disqualify your bid as being “**Non-Responsive**”. *If your business is not required to have one of the following numbers, provide an explanation.*

1. State of Washington Contractor Registration No. _____
2. State of Washington Unified Business Identifier No. _____
3. Employment Security Department No. _____
4. State Excise Tax Registration No. _____
5. Is the payment of Worker’s Comp (Industrial Insurance) Premiums current? If your business does not have a Worker’s Comp account with the WA State Dept of L&I, please explain why.
 Yes
 No (If No, you are not eligible to bid on this project)
 No Account – Explain why: _____
6. Are you disqualified from bidding on public works projects in the State of Washington?
 Yes (If Yes, you are not eligible to bid on this project)
 No

END OF SECTION 004512

SECTION 004546.A – BUY AMERICA CERTIFICATE

The Bidder must submit to STA this completed Buy America Certificate with its Bid on or before the Bid Due Date. Bids that are not accompanied by this completed Buy America Certificate shall be rejected as nonresponsive and will be removed from any further consideration.

This solicitation is subject to Federal Assistance and the FTA “Buy America” requirements as follows:

The Contractor agrees to comply with 49 U.S.C. 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by the FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7 and include small purchases (currently less than \$150,000) made with capital, operating or planning funds. Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 CFR 661.11.

NOTE: SIGNING IN BOTH AREAS SHALL INVALIDATE THIS CERTIFICATE & RESULT IN A NONRESPONSIVE PROPOSAL

The Bidder hereby certifies that it **WILL COMPLY** with the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.

Bidder Name: _____

Bidder Address: _____

Telephone: _____ Fax: _____

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

---- OR ----

The Bidder hereby certifies that it **CANNOT COMPLY** with the requirements of 49 U.S.C. 5323(j)(1) but may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(B) or (j)(2)(D) and the regulations in 49 CFR 661.7.

Bidder Name: _____

Bidder Address: _____

Telephone: _____ Fax: _____

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

END OF SECTION 004546.A

SECTION 004546.B – LOBBYING RESTRICTION CERTIFICATION

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

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

Bidder Name: _____
(as registered with the State of Washington)

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

END OF SECTION 004546.B

SECTION 004546.C – DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

DBE PARTICIPATION. STA is committed to ensuring that all firms regardless of race, color, sex or national origin have equal opportunity to participate in STA contracts. Therefore, STA has established an annual agency goal for DBE participation in its contracting opportunities. It shall be understood that no specific goal has been assigned to this contract; however, contractors and subcontractors are required to comply with the following:

1. Non-discrimination Assurances. The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this Contract. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as STA deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).requirements is a material breach of this contract, which may result in the termination of this contract or other such remedy, as STA deems appropriate.
2. Prompt Payment. The Contractor is required to pay its subcontractors performing work related to this Contract for satisfactory performance of that work no later than thirty (30) days after the Contractor's receipt of payment for that work from STA. In addition, the Contractor may not hold retainage from its subcontractors or must return any retainage payments to those subcontractors within thirty (30) days after the subcontractor's work related to this Contract is satisfactorily completed or must return any retainage payments to those subcontractors within thirty (30) days after incremental acceptance of the subcontractor's work by STA and Contractor's receipt of the partial retainage payment related to the subcontractor's work.
3. DBE Participant List. As required by 49 CFR Part 26.11, STA is required to create and maintain a bidders list of all firms bidding on prime contracts and bidding or quoting subcontracts on Department of Transportation, Federal Transit Administration-assisted contracts. STA is also committed to providing equal access to small business concerns in bidding on STA's contracting opportunities. The U.S. Small Business Administration (SBA) defines a "small business" in terms of the number of employees over the past year or the average annual receipts over the past three years. This standard varies by industry. STA will use size standards established by the SBA to determine small business eligibility.

To comply with this requirement, STA requests the Contractor provide the information required by the Federal Transit Administration on page two of this certification. **This information is not used in determining award of contract or in evaluating your Proposal in any way. Providing this information is voluntary.**

A copy of 49 CFR Part 26 may be found at www.ecfr.gov or by contacting:

Jacque Tjards
DBE Liaison
Spokane Transit Authority
1230 W. Boone Ave.
Spokane, WA 99201
(509) 325-6032
jtjards@spokanetransit.com

Contractor DBE Information

Bidder Name: _____

Bidder Address: _____

North American Industry Classification System (NAICS) Code: _____

To determine your industry NAICS code go to www.census.gov/eos/www/naics and enter a keyword of your business classification in the box directly above the **2012** NAICS Search on the left side of the page and choose from the selection of codes that best matches your business classification.

Type of Business: _____

Telephone Number: _____ Email Address: _____

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

- Is your firm a Disadvantaged Business Enterprise (DBE) registered with the State of Washington Office of Minority and Women's Business Enterprises?

Yes No

- How long has your firm been in business? _____

- Please check the box that describes your total gross annual receipts:

- | | |
|--|--|
| <input type="checkbox"/> less than \$500,000 | <input type="checkbox"/> \$3,000,001 - \$3,500,000 |
| <input type="checkbox"/> \$500,000 - \$1,000,000 | <input type="checkbox"/> \$3,500,001 - \$4,000,000 |
| <input type="checkbox"/> \$1,000,001 - \$1,500,000 | <input type="checkbox"/> \$4,000,001 - \$4,500,000 |
| <input type="checkbox"/> \$1,500,001 - \$2,000,000 | <input type="checkbox"/> \$4,500,001 - \$5,000,000 |
| <input type="checkbox"/> \$2,000,001 - \$2,500,000 | <input type="checkbox"/> \$5,000,001 - \$5,500,000 |
| <input type="checkbox"/> \$2,500,001 - \$3,000,000 | <input type="checkbox"/> greater than \$5,500,000 |

- Is your business a small business as defined by the SBA's definition of a small business concern? To determine if your business is considered a small business by SBA go to www.sba.gov/size-standards-tool, enter your six- digit NAICS Code and follow the 3-step process.

Yes No

SECTION 004546.D – CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION IN A LOWER TIER COVERED TRANSACTION

The Contractor shall comply and facilitate compliance with US DOT regulations, “Nonprocurement Suspension and Debarment”, 2 CFR part 1200, which adopts and supplements the U.S. Office of Management and Budget (US OMB) “Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)”, 2 CFR part 180. These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by an FTA official irrespective of the contract amount. As such, the Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded Contract and are not presently declared by any Federal department or agency to be:

- a) Debarred from participation in any federally assisted Award;
- b) Suspended from participation in any federally assisted Award;
- c) Proposed for debarment from participation in any federally assisted Award;
- d) Declared ineligible to participate in any federally assisted Award;
- e) Voluntarily excluded from participation in any federally assisted Award; or
- f) Disqualified from participation in any federally assisted Award.

By signing below and submitting its Bid, the Bidder certifies as follows:

The certification in this clause is a material representation of fact relied upon by the Owner. If it is later determined by the Owner that the Bidder knowingly rendered an erroneous certification, in addition to remedies available to the Owner, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Bidder agrees to comply with the requirements of 2 CFR part 180, subpart C, as supplemented by 2 CFR part 1200, while its Bid is valid and throughout the period of any Contract that may arise from its Bid. The Bidder further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Bidder Name: _____

Bidder Address: _____

Telephone: _____ Fax: _____

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

END OF SECTION 004546.D

SECTION 004546.F – CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUES

The Bidder hereby certifies that within the three-year period immediately preceding the Bid Due Date, the Bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of Chapters 49.46, 49.48 or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the State of Washington, Department of Labor and Industries or through a civil judgement entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct:

Bidder Name: _____

Authorized Signature¹: _____ Date: _____

Printed Name and Title: _____

City & State: _____

Company Type: Sole Proprietor Partnership² Joint Venture Corporation

State of Incorporation or formation: _____

¹ If a Corporation, the Bid must be executed in the corporate name by the president, vice-president, or any other corporate officer accompanied by evidence of authority to execute. If a Partnership, the Bid must be executed by a Partner.

² If a Partnership, provide name of firm under which business is transacted: _____

END OF SECTION 04546.E

SECTION 004546.F – CARGO PREFERENCE CERTIFICATION

CARGO PREFERENCE CERTIFICATION

The Contractor agrees:

1. To utilize privately owned United States flag commercial vessels to ship at least fifty percent (50%) of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials or commodities pursuant to this section, to the extent such vessels are available at fair and reasonable rate for United States flag commercial vessels.
2. To furnish within twenty (20) days following the date of loading for shipment originating within the United States, or within thirty (30) days following the date of loading for shipment originating outside the United States, a legible copy of a rated, “on-board” commercial ocean bill of lading in English for each shipment of cargo described in paragraph (1) above to Spokane Transit Authority (through the prime Contractor in the case of subcontractor bills of lading) and to the Division of National Cargo, Office of Market Development, Washington, DC 20590, marked with appropriate identification of the project.
3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Contract.

Bidder Name: _____
(as registered with the State of Washington)

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

END OF SECTION 004546.F

SPOKANE TRANSIT AUTHORITY PUBLIC WORKS CONSTRUCTION CONTRACT 2021-10591

This Contract is made by and between **XXX** (“Contractor”) and the **Spokane Transit Authority** (“Owner”) as of the last date of execution.

Contractor	Owner
Name Address City, State, Zip Contractor License #: UBI #: XXX-XXX-XXX FEIN #: XX-XXXXXXX	Spokane Transit Authority 1230 W Boone Ave Spokane, WA 99201

The Contractor and Owner agree as follows:

Project: (project name, location, and description)

Design Professional: (architect or engineer)
 Address
 City, St, Zip
 Contact
 Email
 Phone

Contract Sum: \$ XXX,XXX.XX Base Bid
 \$ XXX,XXX.XX Alternate 1
 \$ XXX,XXX.XX Alternate 2
 \$ XXX,XXX.XX TOTAL

Unit prices:

<u>Item</u>	<u>Units/limits</u>	<u>Unit Price</u>
XXX	XXX	XXX
XXX	XXX	XXX
XXX	XXX	XXX

(list items by description, the units and limits and the price per unit)

Allowances in Contract Sum:

<u>Item</u>	<u>Units/Limits</u>	<u>Price</u>
XXX	XXX	XXX
XXX	XXX	XXX
XXX	XXX	XXX

(list allowances by description, units and/or limits and the price per unit)

CONTRACT DOCUMENTS

Contract Documents include, but are not limited to:

- A. This Contract executed by the Contractor and Owner;
- B. Advertisement for Bid and all Bid documents;
- C. General Conditions;
- D. Modifications to General Conditions;
- E. Federal Terms & Conditions;
- F. Supplemental Conditions;
- G. Drawings prepared by the Design Professional:
 - List the drawing number range from page 1 to XXX and the date(s).
- H. Technical Specifications;
 - List the specifications number range from page 1 to XXX and the date(s).
- I. Invitation for Bid (IFB)
- J. Addenda: (list any/all addenda by number, date and quantity of pages)

<u>Number</u>	<u>Issue Date</u>	<u># of pages</u>
XXX	XXX	XXX
XXX	XXX	XXX
XXX	XXX	XXX

- K. Other documents identified as follows:

<u>Description</u>	<u>Date</u>	<u># of pages</u>
XXX	XXX	XXX
XXX	XXX	XXX

PROJECT MANAGERS & COMMUNICATIONS

Any administrative or operational communications required by the Parties’ under this Agreement shall be directed to the designated representatives below:

Contractor	Spokane Transit Authority
Contact Title Company Address City, ST ZIP E: email@ P: (509)	Name Capital Projects Manager Spokane Transit Authority 1230 W Boone Ave Spokane, WA 99201 E: @spokanetransit.com P: (509) TBD

Communications to be given hereunder shall be deemed sufficient if given (1) in person; (2) by mail, postage prepaid; or (3) by facsimile or email, addressed to the designated representative of the Parties as set forth above, or as may be revised by written notice in accordance with the Notices Section of this Contract.

NOTICES

All notices, requests, claims, demands and other communications shall be in writing and shall be signed by a person duly authorized to provide such notice. Notices permitted or requested to be given hereunder shall be deemed sufficient if given (1) in person; (2) by regular mail, postage prepaid; (3) by registered or certified mail, postage prepaid, return receipt requested; or (4) by facsimile or email, addressed to the respective contact of the Parties as set forth below, or as may be revised by like notice from time to time.

All notices shall be deemed to have been duly given (1) when delivered in person; (2) three (3) business days after the date of mailing by regular mail, postage prepaid; (3) upon receipt after dispatch by registered or certified mail, postage prepaid; or (4) upon confirmation of receipt when transmitted by facsimile or a read receipt when transmitted by email.

Contractor	Owner
Contact Title Company Address City, ST ZIP E: email@ P: (509) F: (509)	Robert West Contracts Compliance Specialist Spokane Transit Authority 1230 W Boone Ave Spokane, WA 99201 E: rwest@spokanetransit.com P: (509) 325-6062 F: (509) 325-6036

[signatures on the following page]

SIGNATURES

The Parties affirm that the individuals signing this Agreement have been granted the authority to do so and by their signature affirm that the Parties will comply with the terms and conditions of this Agreement.

XXX

Spokane Transit Authority

By:
Title:

Date: _____

By: E. Susan Meyer
Title: Chief Executive Officer

Date: _____

Attest:

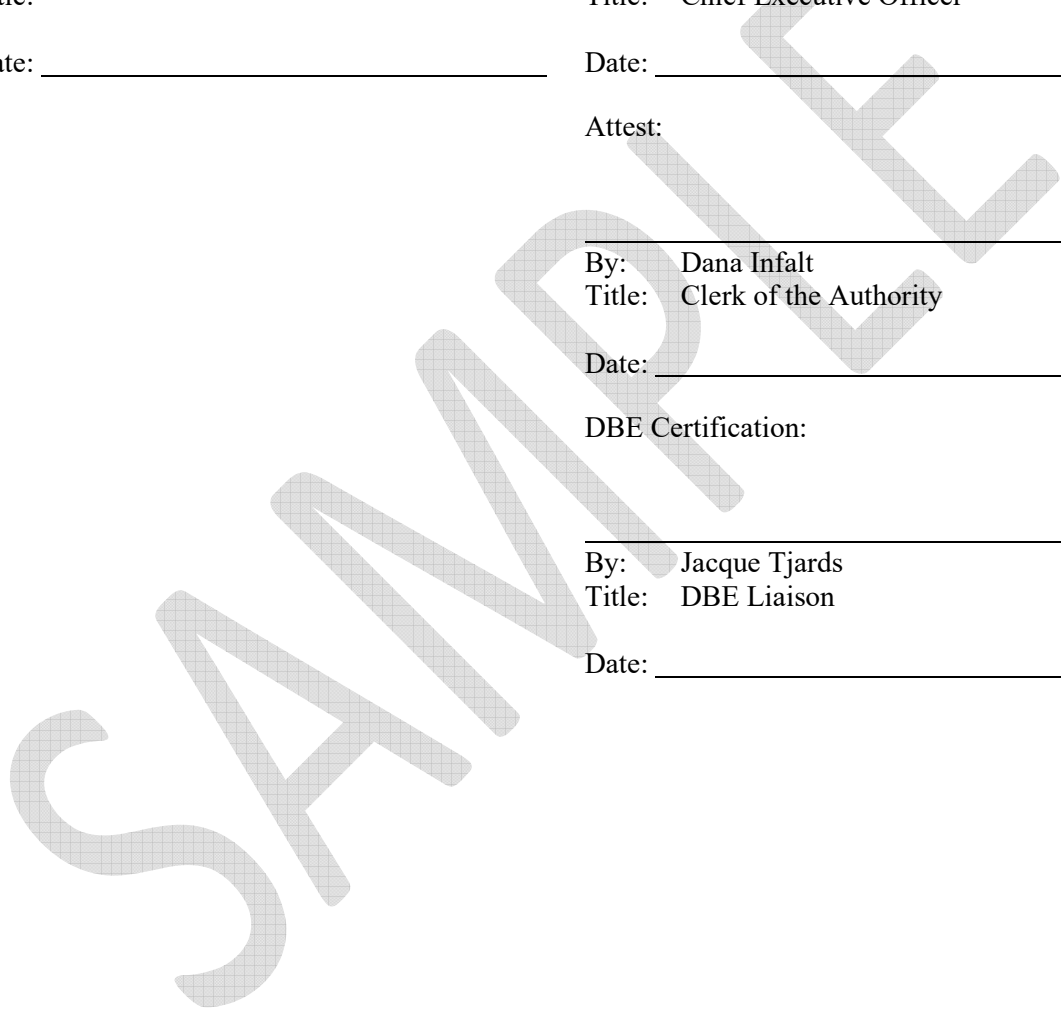
By: Dana Infalt
Title: Clerk of the Authority

Date: _____

DBE Certification:

By: Jacque Tjards
Title: DBE Liaison

Date: _____



The following Public Works General Conditions (“GC”) are incorporated into the contract to which they are attached. Although these GC are organized consistent with the General Conditions for Washington State Facility Construction, the provisions herein are not identical. Please review these GC carefully.

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PART 1: GENERAL PROVISIONS

1.01 DEFINITIONS

Capitalized terms included in these GC which are not defined herein shall have the same meaning as defined in the document(s) to which these GC are attached.

- A. **Application for Payment** means a written request submitted by Contractor to Owner or, if applicable, 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, if applicable, A/E may require.
- B. **Architect, Engineer or A/E** means a person or entity lawfully entitled to practice architecture or engineering, representing Owner within the limits of its delegated authority.
- C. **Award** means the formal decision by the Owner notifying a responsible Bidder with the lowest responsive Bid of the Owner's acceptance of the Bid and intent to enter into a contract with the Bidder.
- D. **Bidder** means an individual, partnership, firm, corporation or joint venture submitting a Bid with the intent to enter into a contract with Owner for the completion of the Work.
- E. **Business Day** means Monday through Friday, commencing at 12:00 AM and ending at 11:59 PM, unless noted otherwise.
- F. **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.
- G. **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.
- H. **Contract Award Amount** is the sum of the Base Bid and any accepted Alternates.
- I. **Contract Documents** means the Advertisement for Bids, Instructions for Bidders, executed Bid Proposal Form and Bidder certifications, Contract, GC, Modifications to the GC, Federal Terms & Conditions, Drawings, Specifications, all addenda and modifications thereof, all supporting documentation required by any of the above, or as requested by the Owner.
- J. **Contract Sum** is the total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents. Except as described below, the Contract Sum includes all taxes imposed by law and properly chargeable to the Work. The Contract Sum does not include Washington State sales tax.
- K. **Contract Time** is the number of Days allotted in the Contract Documents for achieving Substantial Completion of the Work.
- L. **Contractor** means the person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents. Contractor's duties and obligations flow down and become duties and obligations of Subcontractors.
- M. **Day(s)** shall mean a calendar day, commencing at 12:00 AM and ending at 11:59 PM, unless noted otherwise.
- N. **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.
- O. **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 6.09E.
- P. **Final Completion** means that the Work is fully and finally complete in accordance with the Contract Documents, as more fully set forth in Section 6.09D.
- Q. **Force Majeure** means those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in Section 3.05A.
- R. **L&I** means the State of Washington Department of Labor and Industries.
- S. **Notice** means a written notice which has been delivered 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.
- T. **Notice to Proceed** means a written notice from Owner to Contractor that defines the date on which the Contract Time begins to run.

- U. **Owner** means the Spokane Transit Authority, STA or its authorized representative with the authority to enter into, administer and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.
- V. **Person** means a corporation, partnership, business association of any kind, trust, company or individual.
- W. **Prior Occupancy** means Owner's use of all or parts of the Project before Substantial Completion, as more fully set forth in Section 6.08A.
- X. **Progress Schedule** means a schedule of the Work, in a form satisfactory to Owner, as further set forth in Section 3.02B.
- Y. **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.
- Z. **Project Manual** means the volume usually assembled for the Work which may include the bidding requirements, sample forms, and other Contract Documents.
- AA. **Project Record** means the separate set of Drawings and Specifications as further set forth in Section 4.02A.
- BB. **Schedule of Values** means a written breakdown allocating the total Contract Sum to each principal category of Work, in such detail as requested by Owner.
- CC. **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.
- DD. **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.
- EE. **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.
- FF. **Substantial Completion** means that stage in the progress of the Work when the construction is sufficiently complete, as more fully set forth in Section 6.07A.

- GG. **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

- A. Any conflict or consistency in the Contract Documents shall be resolved by giving the documents precedence in the following order:
1. Federal Terms & Conditions, if applicable.
 2. Executed Change Order(s), in descending order.
 3. Executed Form of Contract.
 4. Supplemental Conditions, if applicable.
 5. Modifications to the GC, if applicable.
 6. GC.
 7. Specifications. Provisions in Division 1 shall take precedence over provisions of any other Division.
 8. Drawings. In case of conflict within the Drawings, large scale drawings shall take precedence over small scale drawings.
 9. Signed and Completed Bid Form.
 10. Instructions to Bidders.
 11. Advertisement for Bids.

1.03 EXECUTION AND INTENT

Contractor makes the following representations to Owner:

- A. **Contract Sum Reasonable.** 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;
- B. **Contractor Familiar with Project.** Contractor has carefully reviewed the Bid Documents, 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;

- C. **Contractor Financially Capable.** 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
- D. **Contractor Can Complete Work.** 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 GENERAL INSURANCE REQUIREMENTS

At the Contractor's own expense, the Contractor shall procure and maintain for the duration of the Contract commercial insurance against claims for injuries to persons or damages to property that may arise from or in connection with the Contractor's own work, including the work of the Contractor's agents, representatives, employees, and Subcontractors of any tier. Contractor shall include in its Bid the cost of all insurance and bond costs required to complete the base Bid work and accepted alternates.

- A. **Evidence of Insurance.** Within ten (10) Days of execution of a contract or prior to commencement of the Work, whichever occurs earlier, Contractor shall obtain and provide a Certificate of Insurance evidencing the minimum insurance coverages and limits specified hereunder to Owner at coi@spokanetransit.com. If the Contractor maintains higher limits than those specified herein, the Owner shall be entitled to the higher limits maintained by the Contractor. Owner reserves the right to receive a certified and complete copy of all of the Contractor's insurance policies and the Contractor shall furnish such copies within ten (10) Days of request by Owner. All insurance certificates shall name Owner's Contract number, Project number and Project title.
- B. **Insurer Minimum Requirements.** All insurance policies shall be written with insurance companies licensed to provide insurance in the State of Washington and shall have a rating of not less than A:VII according to the A.M. Best Company.

- C. **Deductible.** The Contractor is responsible for declaring to the Owner and paying any deductible or self-insured retention that is required by any of the Contractor's insurance. If the Owner is required to contribute to the deductible or self-insured retention under any of the Contractor's insurance policies, the Contractor shall reimburse the Owner the full amount of the deductible or self-insured retention.
- D. **Self-insured Retention.** Any Contractor self-insured retentions must be declared to and approved in writing by Owner prior to execution of a Contract. Owner reserves the right to require that self-insured retentions be eliminated, lowered or replaced by a deductible. Self-insurance or self-insured retentions will not be considered to comply with these insurance requirements unless specifically approved in writing by Owner.
- E. **Owner as Additional Insured.** Owner shall be named as an additional insured on the Contractor's commercial general liability, umbrella liability and business auto liability policies and shall contain, or be endorsed to contain, that the Owner, its officers, officials, employees and volunteers, are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Contractor, and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including material, parts or equipment furnished in connection with such work or operations. The Owner shall be endorsed as a loss payee on the Contractor's builders' risk and boiler and machinery policies.
- F. **Primary and Non-contributory.** It is the intent of the Contract for the Contractor's insurance to be considered primary in the event of a loss, damage or suit. The Owner's own comprehensive general liability policy will be considered excess coverage in respect to the Owner, its officers, officials, employees, and volunteers, and shall not contribute to the Contractor. Additionally, the Contractor's commercial general liability policy must provide cross-liability coverage as would be achieved under a standard ISO separation of insureds clause.
- G. **Notification.** The Contractor shall request from its insurer modification of the ACORD certificates to include language that written notification will be given to the Owner for any cancellation, suspension or material change in the Contractor's coverages at least thirty (30) Days in advance of such cancellation, suspension or material change.

- H. **Term of Insurance Coverage.** Contractor shall maintain insurance coverages herein during the Work and for two (2) years after Final Acceptance. Contractor shall also maintain such insurance coverage during the performance of any corrective Work required by Section 5.16.
- I. **Subcontractor Coverage.** Contractor shall require and verify all Subcontractors maintain insurance meeting all of the requirements stated herein.
- J. **Waiver of Subrogation Rights.** Owner and Contractor waive all subrogation rights against each other, any Subcontractors, A/E, A/E's subconsultants, separate contractors, 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.
- C. **Industrial Insurance.** 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.
- D. **Builder's Risk.** Builder's Risk coverage on a replacement-cost basis, at an amount equal to the initial Contract Sum and any subsequent Change Orders, plus twenty-five percent (25%) for additional architectural and engineering services. This property insurance shall cover, at a minimum, malicious mischief, false work, temporary buildings, debris removal including demolition occasioned by enforcement of any applicable legal requirements, reasonable compensation for Owner's and, if applicable, A/E's services and expenses required as a result of an insured loss, perils insured under the ISO special cause of loss form CP 10 30 and shall be endorsed to provide full coverage for loss or damage from collapse, including collapse resulting from design error. The policy shall cover reasonable compensation for architects' and/or engineers' services and expenses made necessary by an insured loss. Insured property shall include portions of the Work located away from the work site, but intended for use at the work site, and shall cover portions of the Work in transit. The policy shall cover the cost of removing debris, including demolition as may be legally necessary by any law, ordinance or regulation.

2.02 MINIMUM INSURANCE COVERAGES

- A. **General Liability Insurance.** Commercial General Liability (CGL) insurance on a project-occurrence basis, with coverage at least as broad as ISO form CG 00 01 with minimum limits of \$2,000,000 per occurrence and \$4,000,000 in the aggregate. Coverage shall include, but not be limited to:
1. Premise/operations;
 2. Contractual liability;
 3. Products & completed operations;
 4. Independent contractors
 5. Property damage; and
 6. Personal injury/advertising injury
- B. **Automobile Liability Insurance.** Commercial automobile liability insurance on a Combined Single Limit basis at least as broad as ISO form CA 00 01 with minimum limits of \$2,000,000 per occurrence.

The builders risk policy shall be maintained in effect, unless otherwise provided for in the Contract Documents, until the earliest of the following dates: (a) the date on which all persons and organizations who are insureds on the policy agree it shall be terminated; (b) the date on which final payment has been made; (c) the date on which the insurable interests in the property of all insureds other than the Owner have ceased.

- E. For projects not involving construction of a new building, an "Installation Floater" is an acceptable substitute for Builder's Risk Insurance. The Installation Floater shall cover all interests of the Owner, Contractor and any Subcontractors, as their interests may appear, for the duration of the Project.

- F. **Boiler & Machinery.** When applicable, Contractor shall purchase and maintain boiler and machinery coverage covering insured objects during installation and until Final Acceptance by Owner. This insurance shall name as insureds the Owner, Contractor, and all Subcontractors of any tier.

2.03 PAYMENT AND PERFORMANCE BONDS

- A. Payment and performance bonds for one hundred percent (100%) of the Contract Award Amount plus state sales tax, shall be furnished for the Work, using the Payment Bond and Performance Bond form published by and available from the American Institute of Architects (AIA) – form A312 (or current version of the same). Prior to execution of a Change Order that, cumulatively with previous Change Orders, increases the Contract Award Amount by fifteen percent (15%) or more, the Contractor shall provide either new payment and performance bonds for the revised Contract Sum, or riders to the existing payment and performance bonds increasing the amount of the bonds. The Contractor shall likewise provide additional bonds or riders when subsequent Change Orders increase the Contract Sum by fifteen percent (15%) or more.
- B. No payment or performance bond is required if the Contract Sum is \$150,000 (one-hundred fifty thousand dollars) or less and Contractor agrees in writing that Owner may, in lieu of the bond, retain ten percent (10%) of the Contract Sum for the period allowed by RCW 39.08.010.
- C. **Alternative Surety.** Contractor shall promptly furnish payment and performance bonds from an alternative surety as required to protect Owner and persons supplying labor or materials required by the Contract Documents if:
1. Owner has a reasonable objection to the surety; or
 2. Any surety fails to furnish reports on its financial condition if requested by Owner.

PART 3: TIME AND SCHEDULE

3.01 PROGRESS AND COMPLETION

Contractor shall diligently execute the Work, with adequate forces, achieve Substantial Completion within the Contract Time, and achieve Final Completion within a reasonable period thereafter.

3.02 CONSTRUCTION SCHEDULE

- A. **Preliminary Progress Schedule.** Unless otherwise provided in the Contract, Supplemental Conditions, or Modifications to GC, Contractor shall, within fourteen (14) 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. **Form of Progress Schedule.** The Progress Schedule shall be created, maintained and edited using MS Project software or similar software identified and agreed to by and between the parties. 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. At a minimum, the schedule shall include:
- Date of Notice to Proceed;
 - Activities (resources, durations, individual responsible for activity, early starts, late starts, early finishes, late finishes, etc.);
 - Utility Shutdowns;
 - Interrelationships and dependence of activities;
 - Planned vs. actual status for each activity;
 - Substantial Completion;
 - Punch list;
 - Final inspection;
 - Final Completion, and
 - 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 Project 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 Comments on Progress Schedule.** Owner shall return comments on the preliminary Progress Schedule to Contractor within fourteen (14) 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. **Monthly Updates and Compliance with Progress Schedule.** 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 3.05A, Contractor shall take such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Progress Schedule, and if directed by Owner, Contractor shall submit a corrective action plan or revise the Progress Schedule to reconcile with the actual progress of the Work.
- E. **Contractor to Notify Owner of Delays.** 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 Suspend Work.** Owner may, at its sole discretion, order Contractor, in writing, to suspend all or any part of the Work for up to ninety (90) Days, or for such longer period as mutually agreed.
- B. **Compliance with Suspension; Owner's Options.** 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 ninety (90) 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 of Part 9.
- C. **Resumption of Work.** 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. **Equitable Adjustment for Suspensions.** 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. **Owner May Stop Work for Contractor's Failure to Perform.** 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. **No Equitable Adjustment for Contractor's Failure to Perform.** 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.

- C. **Opportunity to Cure.** Owner, in its sole discretion, may, in the case of termination for breach or default, allow the Contractor an appropriate period of time, as determined by Owner, in which to cure the defect of goods or service. In such case, the notice of termination will state the nature of the breach or default, the time period in which cure is permitted and other appropriate conditions. If the Contractor fails to remedy to Owner's satisfaction the breach or default of any of the terms, covenants or conditions of the Contract Documents within the stated period of time for remedy, Owner shall have the right to terminate the Contract without any further obligation to the Contractor. Any such termination for default shall not in any way operate to preclude Owner from also pursuing all available legal remedies against the Contractor and its sureties for said breach or default.
- D. **Waiver of Remedies for Any Breach.** In the event that Owner elects to waive its remedies for any breach by the Contractor of any covenant, term or condition of this Contract, such waiver by Owner shall not limit Owner's legal remedies for any succeeding breach of that or of any other term, covenant, or condition of this contract.

3.05 DELAY

- A. **Force Majeure Actions Not A Default; Force Majeure Defined.** 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 experienced within the area any time in the preceding ten (10) years:
 - a. Monthly rainfall in excess of the highest monthly rainfall experienced for the same month.
 - b. Annual rainfall in excess of the highest annual rainfall experienced.
 - c. Monthly snowfall in excess of the highest monthly snowfall experienced for the same month.
 - d. Annual snowfall in excess of the highest annual snowfall experienced.
 - e. Average high temperatures, for the summer months, in excess of the highest temperatures experienced.
 - f. Average low temperatures for the winter months, lower than the lowest average temperatures experienced.
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. **Contract Time Adjustment For Force Majeure.** 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. **Contract Time or Contract Sum Adjustment If Owner at Fault.** 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. **No Contract Time or Contract Sum Adjustment If Contractor at Fault.** 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. **Contract Time Adjustment Only for Concurrent Fault.** 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 to Mitigate Delay Impacts.** 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.

3.06 NOTICE TO OWNER OF LABOR DISPUTES

- A. **Contractor to Notify Owner of Labor Disputes.** 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. **Pass Through Notification Provisions to Subcontractors.** Contractor agrees to insert a provision in its Subcontracts and to require insertion in all Subcontractor 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 its subcontractors 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. **Reason for Liquidated Damages.** 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. **Calculation of Liquidated Damages Amount.** 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. **Contractor Responsible Even If Liquidated Damages Assessed.** Assessment of liquidated damages shall not release Contractor from any further obligations or liabilities pursuant to the Contract Documents.

B. **Actual Damages**

1. **Calculation of 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. **Specifications and Drawings Are Basis of The Work.** 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. **Parts of The Contract Documents Are Complementary.** 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 to Report Discrepancies in Contract Documents.** 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 Owner and, if applicable, A/E in writing.
- D. **Contractor Knowledge of Discrepancy in Documents – Responsibility.** 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 to Perform Work Implied by Contract Documents.** 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. **Interpretation Questions Referred to Owner.** Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the Owner and, if applicable, the A/E.

4.02 PROJECT RECORD

- A. **Contractor to Maintain Project Record Drawings and Specifications.** Contractor shall legibly mark in ink on a separate set of the Drawings and Specifications all actual construction which differ from the project Drawings and Specifications, including, but not limited to, depths of foundations, horizontal and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes with 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. **Update Project Record Weekly and Keep on Site.** 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. **Final Project Record to Owner Before Final Acceptance.** Contractor shall submit the completed and finalized Project Record to Owner prior to Final Acceptance.

4.03 SHOP DRAWINGS

- A. **Definition of Shop Drawings.** “Shop Drawings” means documents and other information required to be submitted to Owner and 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. Shop Drawings 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 Shop Drawings provided in accordance with the Contract Documents.
- B. **Approval of Shop Drawings by Contractor and Owner.** 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 Owner 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 Owner and, if applicable, A/E review. Owner and, if

applicable, 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 Owner and, if applicable, A/E, has approved or taken other appropriate action. Owner and, if applicable, 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. **Contractor Not Relieved of Responsibility When Shop Drawings Approved.** Approval, or other appropriate action with regard to Shop Drawings, by Owner and, if applicable, A/E, shall not relieve Contractor of responsibility for any errors or omissions in such Shop Drawings, nor from responsibility for compliance with the requirements of the Contract Documents. Unless specified in the Contract Documents, review by Owner and, if applicable, 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. **Variations Between Shop Drawings and Contract Drawings.** 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 Owner and, if applicable, 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. **Contractor to Submit Shop Drawings.** Unless otherwise provided in Division 1, Contractor shall submit to Owner and, if applicable, A/E, for approval three (3) original paper copies and an electronic copy in PDF format of all Shop Drawings. Unless otherwise indicated, one (1) original copy of all Shop Drawings shall be retained by Owner; one (1) original copy shall be

retained by A/E; and one (1) original copy shall be returned to Contractor.

4.04 ORGANIZATION OF SPECIFICATIONS

- A. **Specification Organization by Trade.** 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. **Owner Or, If Applicable, A/E, Not Contractor, Owns Copyright of Drawings and Specifications.** The Drawings, Specifications and other documents prepared by Owner or, if applicable, A/E, (the "Preparer") are instruments of Preparer'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 Preparer, and Preparer 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 Owner or, if applicable, A/E, on request, upon completion of the Work.
- B. **Drawings and Specifications to Be Used Only for This Project.** The Drawings, Specifications and other documents prepared by the Owner or, if applicable, 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, if applicable, 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 Owner or, if applicable, A/E, appropriate to and for use in the execution of their Work.
- C. **Shop Drawing License Granted to Owner.** 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 Sections 5.03A and 5.22 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. **Shop Drawings to Be Used Only for This Project.** 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 Responsible for Means and Methods of Construction.** 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. **Competent Superintendence Required.** Performance of the Work shall be directly supervised by a competent superintendent who

has authority to act for Contractor. The superintendent must be satisfactory to the Owner and 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.

- C. **Contractor Responsible for Acts and Omissions of Self and Agents.** Contractor shall be responsible to Owner for acts and omissions of Contractor, Subcontractors and their employees and agents.
- D. **Contractor to Employ Competent and Disciplined Workforce.** Contractor shall enforce strict discipline and good order among all of the 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 to Keep Project Documents on Site.** Contractor shall keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed Shop Drawings and permits, permit drawings and life safety plans as may be required by federal, state and local agencies.
- F. **Contractor to Comply with Ethical Standards.** 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. **Contractor to Obtain and Pay for Permits.** Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses and inspections necessary for proper execution and completion of the Work.

Upon issuance of a permit or license, a copy shall be provided to the Owner. Prior to Final Acceptance, the original approved and signed permits shall be delivered to Owner.

- B. **Allowances for Permit Fees.** If allowances for permits or utility fees are called for in the Contract Documents and set forth in Contractor’s Bid, and the actual costs of those permits or fees differ from the allowances in the Contract Documents, the difference shall be adjusted by Change Order.
- C. **Contractor to Comply with All Applicable Laws.** Contractor shall comply with and give notices required by all federal, state and local laws, ordinances, rules, regulations and lawful orders of public authorities applicable to performance of the Work.

5.03 PATENTS AND ROYALTIES

- A. **Payment, Indemnification and Notice.** 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 and/or its Subcontractors, of any tier, 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 in writing.

5.04 PREVAILING WAGES

- A. **Contractor to Pay Prevailing Wages.** Contractor and Subcontractors of any tier 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 *Prevailing Wages on Public Works*, the rules and regulations of L&I, and where applicable, the Davis-Bacon and Related Acts. The schedule of prevailing wage rates for the locality or localities of the Work is determined by the Industrial Statistician of L&I. Such schedule is located at: <https://secure.lni.wa.gov/wagelookup>. Contractor shall use the Bid Due Date as the

effective date and Spokane County as the locality of work when determining applicable prevailing wage rates. A copy of applicable prevailing wage rates is available for viewing upon request at Spokane Transit Authority, 1230 W. Boone Ave., Spokane, WA 99201. It is the Contractor’s responsibility to verify the applicable state and federal prevailing wage rates for all job classifications.

- B. **Statement of Intent to Pay Prevailing Wage.** 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 (“Intent”), approved by L&I, certifying the rate of hourly wage to be paid to each classification of laborers, workers or mechanics employed upon the Work by Contractor and Subcontractors of any tier. Such rates of hourly wage shall not be less than the prevailing wage rate.
- C. **Affidavit of Wages Paid.** Prior to release of retainage or, where applicable, bond, the Contractor shall submit to the Owner an Affidavit of Wages Paid (“Affidavit”), approved by L&I, for the Contractor and every subcontractor, of any tier, that performed work on the Project.
- D. **Statement with Pay Application.** Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the pre-filed and approved Intent.
- E. **Post Statements of Intent at Job Site.** Copies of the approved Intent(s) shall be posted on the job site with the address and telephone number of the Industrial Statistician of L&I where a complaint or inquiry concerning prevailing wages may be made.
- F. **Contractor to Pay for Statements of Intent and Affidavits.** In compliance with chapter 296-127 WAC, Contractor and Subcontractors of any tier shall pay to L&I the currently established fee(s) for each Intent and/or Affidavit submitted to L&I for certification.
- G. **Certified Payrolls.** Consistent with RCW 39.12.120 and WAC 296-127-320, the Contractor and Subcontractors of any tier shall keep accurate payroll records for three (3) years from the date of Final Acceptance of the Project and submit certified payroll records using L&I’s online system at least once per month. If L&I’s online

system is not used, Contractor and Subcontractors of any tier shall file a copy of its certified payroll records directly with L&I in a format approved by L&I at least once per month. A Contractor's and/or Subcontractor's noncompliance with this Section constitutes a violation of RCW 39.12.050.

- H. **Dispute Resolution.** Any dispute regarding prevailing wage rates that cannot be resolved between the parties shall be referred to the Director of L&I and such decision of the Director of L&I shall be final and conclusive and binding on the parties.
- I. **Compliance with Federal Funding Requirements.** When the Project is subject to Federal Assistance, Contractor and Subcontractors of any tier shall comply with all requirements of the Davis Bacon and Related Acts. In the event the Project is subject to both State of Washington Prevailing Wages and Davis Bacon and Related Acts, the greater of the two prevailing wage rates shall be paid on a classification by classification basis.

5.05 HOURS OF LABOR

- A. **Overtime.** Contractor shall comply with all applicable provisions of RCW 49.28, which 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 (1) 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 (1-1/2) times the rate allowed for this same amount of time during eight (8) hours of service.
- B. **4-10 Agreements.** Notwithstanding the preceding Section, 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 (10) 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 Prohibited by Applicable Laws.** Discrimination in all phases of employment is prohibited by, among other laws and regulations, Title VI of the Civil Rights Act, 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 1975, Section 202 of the Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, Presidential Executive Order 11246, Executive Order 11375, Executive Order 13672, Federal Transit law at 49 U.S.C. § 5332, 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 and Subcontractors must meet.

B. During performance of the Work:

1. **Protected Classes.** Contractor shall not discriminate against any employee or applicant for employment because of race, creed, religion, color, national origin, sex, age, marital status, sexual orientation, gender identity, 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 and prohibited under state and federal law.
2. **Advertisements to State Nondiscrimination.** Contractor shall, in all solicitations or advertisements for employees placed by or for it, state that all qualified applicants will be considered for employment, without regard to race, creed, religion, color, national origin, sex, age, marital status, sexual orientation, gender identity, or the presence of any physical, sensory, or mental disability.
3. **Contractor to Notify Unions and Others of Nondiscrimination.** 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, RCW 49.60, and state and federal prohibitions against discrimination.

4. **Owner and Government Access to Contractor Records.** Contractor shall permit access to its books, records and accounts, and to its premises by Owner, the Equal Employment Opportunity Commission, and the Washington State Human Rights Commission, for the purpose of investigation to ascertain compliance with this Section of the Contract Documents.
5. **Pass Through Provisions to Subcontractors.** Contractor shall include the provisions of this Section in every Subcontract and shall require Subcontractors to include the provisions of this Section in all contracts for the Project.

5.07 SAFETY PRECAUTIONS

- A. **Contractor Responsible for Safety.** Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work.
- B. **Contractor Safety Responsibilities.** 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 to Maintain Safety Records.** 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 to Provide Hazmat Information and Training.** 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. **WAC Requirements.** The requirements of chapter 296-62 WAC, General Occupational Health Standards;
 - b. **Presence of Hazardous Chemicals.** Any operations in their work area where hazardous chemicals are present; and
 - c. **Hazard Communications Program.** 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, but is not limited to:
 - a. **Detecting Hazardous Chemicals.** 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. **Hazards of Chemicals.** The physical and health hazards of the chemicals in the work area;
 - c. **Protection from Hazards.** The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, 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. **Hazard Communications Program.** 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. **Hazardous, Toxic or Harmful Substances.** Contractor's responsibility for hazardous, toxic or harmful substances shall include the following duties:
1. **Illegal Use of Dangerous Substances.** 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 ninety (90) Days on the Project site.
 2. **Contractor Notifications of Spills, Failures, Inspections, Citations and Fines.** 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; any citation; 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. **Public Safety and Traffic.** 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 responsibility. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- G. **Contractor to Act in an Emergency.** 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. **No Duty of Safety by Owner or A/E.** Nothing provided in this Section shall be construed as imposing any duty upon Owner and, if applicable, 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. **Limited Storage Areas.** Contractor shall confine all operations, including storage of materials, to Owner-approved areas.
- B. **Temporary Buildings and Utilities at Contractor Expense.** 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 be removed by Contractor at its expense upon completion of the Work.
- C. **Roads and Vehicle Loads.** 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 Reporting by Contractor of Demolished Materials.** 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 Responsible for Care of Materials and Equipment On-Site.** 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 Responsible for Loss of Materials and Equipment.** 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.

5.09 PRIOR NOTICE OF EXCAVATION

- A. **Excavation Defined.** “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 twelve (12) inches in depth for agricultural purposes, or road ditch maintenance that does not change the original road grade or ditch flow line.
- B. **Use of Locator Services.** 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. **Notice Requirement for Concealed or Unknown Conditions.** 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 seven (7) Days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.

B. **Adjustment in Contract Time and Contract Sum.** 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 to Protect and Repair Property.** 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. **Tree and Vegetation Protection.** Contractor shall only remove trees when specifically authorized to do so and shall protect vegetation that will remain in place.

5.12 LAYOUT OF WORK

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

B. **Layout Responsibilities.** Contractor shall lay out the Work from Owner-established baselines and benchmarks 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.

5.13 MATERIAL AND EQUIPMENT

- A. **Contractor to Provide New and Equivalent Equipment and Materials.** 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 Responsible for Fitting Parts Together.** 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. **Owner May Reject Defective Work.** Should any of the Work be found defective, or in any way not in accordance with the Contract Documents, the Work, in whatever stage of completion, may be rejected by Owner.

5.14 AVAILABILITY AND USE OF PREMISES AND UTILITY SERVICES

- A. **Use of Premises.** Contractor's use of Owner's premises is limited to Project activities within the areas identified.
- B. **Owner's Occupation of Site.** The Owner may occupy the site and existing building(s) during the entire work period. Contractor agrees to cooperate with Owner during operation to minimize conflicts and facilitate Owner usage. Contractor agrees to perform the work so as not to interfere with the Owner's operations.
- C. **Contractor Must Allow Owner Access.** Contractor must at all times provide for and allow Owner access. Contractor shall not store or stage

vehicles or materials on driveways or at entrances and must keep these access points serving the premises clear and available to the Owner at all times.

- D. **Owner to Provide and Charge for Utilities.** 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.
- E. **Contractor to Install Temporary Connections and Meters.** 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. **Owner to Provide for All Testing and Inspection of Work.** Owner 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 quality surveillance of all its Work and all Work performed by any Subcontractor. Unless otherwise provided, Owner 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 Conduct Tests and Inspections.** 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. **Inspections or Inspectors Do Not Modify Contract Documents.** 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 Responsibilities on Inspections.** 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 reinspection or retest necessary. Owner shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

5.16 CORRECTION OF NONCONFORMING WORK

A. **Work Covered by Contractor Without Inspection.** 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. **Payment Provisions for Uncovering Covered Work.** 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 such a request 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 to Correct and Pay for Non-Conforming Work.** 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. **Contractor's Compliance with Warranty Provisions.** If, within one (1) year after the date of Substantial Completion of the Work or designated portion thereof, or within one (1) year after the date for commencement of any system warranties established under Sections 5.16D, 5.21, 6.08B, 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 (1) 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 (1) year from the date of repair or replacement. Obligations under this Section shall survive Final Acceptance.

E. **Contractor to Remove Non-Conforming Work.** 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. **Owner May Charge Contractor for Non-Conforming Work.** 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 to Pay for Damaged Work During Correction.** 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. **No Period of Limitation on Other Requirements.** 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 Section 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. **Owner May Accept Non-Conforming Work and Charge Contractor.** 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

A. **Contractor to Keep Site Clean and Leave It Clean.** 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. Contractor further agrees:

1. To comply with regulations of authorities having jurisdiction and safety standards for cleaning;
2. To not burn waste materials;
3. To not bury debris or excess materials on the Owner's property;

4. To not discharge volatile, harmful or dangerous materials into drainage systems; and

5. To remove waste materials from the site and dispose of in a lawful manner.

6. Where extra materials of value remaining after completion of associated work have become the Owner's property, arrange for disposition of these materials as directed.

5.18 ACCESS TO WORK AND COMMUNICATIONS REGARDING PROJECT STATUS

A. **Owner and A/E Access to Work Site.** Contractor shall provide Owner and, if applicable, A/E, access to the Work in progress wherever located.

B. **Pre-Project Conference.** Owner shall conduct a pre-project conference after execution of the Contract and prior to commencement of Contractor's performance. The parties to the Agreement shall review their respective responsibilities and personnel assignments.

1. **Attendees.** The Owner, the Contractor and its superintendent, subcontractors, suppliers, manufacturers and other concerned parties shall be represented by persons authorized to conclude matters relating to the Work.

2. **Agenda.** Discuss significant items that could affect progress, including the tentative project progress schedule, critical sequencing, use of the premises and procedures for processing Change Orders and equipment deliveries.

3. Minutes of the meeting shall be taken by the Owner. The Owner shall promptly distribute the meeting minutes to everyone concerned. Contractor is required to distribute the meeting minutes to affected subcontractors and prime suppliers.

C. **Progress Meetings at Regular Intervals.** Contractor should attempt to coordinate meeting dates with preparation of payment requests.

1. **Agenda.** Review minutes of the previous progress meeting. Review significant items that could affect progress. Include topics appropriate to the current status of the Project.

2. **Review Project Progress Schedule Since the Last Meeting.** Determine where each activity is in relation to the schedule, and whether on time, ahead of, or behind the schedule. Determine how areas that are behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether revisions are required to ensure that current and subsequent activities will be completed within the Contract time.
- D. **Reporting.** No later than three (3) Days after each meeting, distribute copies of minutes of the meeting to each party present and to parties who should have been present. Include a summary, in narrative form, of progress since the previous meeting.

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. **Subcontractor Responsibilities.** The Contractor shall include the language of this Section 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 Section apply to all subcontractors regardless of tier. At the time of subcontract execution, the Contractor shall verify that each of its first-tier subcontracts meet 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. Have a Washington Employment Security Department number, as required in Title 50 RCW;

4. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
5. Maintain Industrial Insurance (workers' compensation coverage) for the subcontractor's employees working in Washington, as required in Title 51 RCW;
6. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW. The training must be provided by L&I or by a training provider whose curriculum is approved by L&I. Contractors that have completed three (3) or more public works projects, have had a valid business license in Washington for three (3) or more years, and are listed on the L&I exemption list are exempt from this training requirement;
7. Within the three (3) year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by L&I, 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 chapter [49.46](#), 49.48, or [49.52](#) RCW;
8. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3); and
9. If applicable, have:
 - a. An electrical contractor license, if required by Chapter 19.28 RCW; and/or
 - b. An elevator contractor license, if required by Chapter 19.28, RCW.

- B. **Provide Names of Subcontractors and Use Qualified Firms.** Before submitting the first Application for Payment, Contractor shall furnish in writing to Owner the names, addresses and telephone numbers of all Subcontractors, as well as suppliers providing materials in excess of \$2,500 (two thousand five-hundred dollars). 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.

- C. **Subcontracts in Writing and Pass Through Provision.** 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 Section shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.
- D. **Coordination of Subcontractors; Contractor Responsible for Work.** 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. **Automatic Assignment of Subcontracts.** Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Owner provided that:
1. **Effective Only After Termination and Owner Approval.** 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. **Owner Assumes Contractor's Responsibilities.** After the assignment is effective, Owner will assume all future duties and obligations toward the Subcontractor which Contractor assumed in the Subcontract.
 3. **Impact of Bond.** 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. **Contractor Warranty of Work.** 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. **Contractor Responsibilities.** With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:
1. **Obtain Warranties.** Obtain all warranties that would be given in normal commercial practice;
 2. **Warranties for Benefit of Owner.** Require all warranties to be executed, in writing, for the benefit of Owner;
 3. **Enforcement of Warranties.** Enforce all warranties for the benefit of Owner, if directed by Owner; and
 4. **Contractor Responsibility for Subcontractor Warranties.** Be responsible to enforce any subcontractor's, manufacturer's, or supplier's warranties should they extend beyond the period specified in the Contract Documents.
- C. **Warranties Beyond Final Acceptance.** The obligations under this Section shall survive Final Acceptance.

5.22 INDEMNIFICATION

- A. In performing work and services hereunder, the Contractor, its employees, agents and representatives, shall be acting as independent contractors, and shall not be deemed or construed to be employees or agents of STA in any manner whatsoever. The Contractor shall not hold itself out as, nor claim to be, an officer or employee of STA by reason hereof, and will not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of STA. The Contractor shall be solely responsible for any claims for wages or compensation by the Contractor's employees, agents and representatives, and shall save and hold STA harmless therefrom.
- B. To the maximum extent permitted by law, the Contractor shall indemnify and hold harmless STA and all of STA's officers, employees, and agents from and against all claims, demands,

suits, penalties and liability of any kind, including injuries to persons or damages to property, which arise out of or are due to any acts, errors, or omissions of the Contractor, or the Contractor's employees, agents, and representatives in performing work and services under this Agreement. In the event that any claims, investigations, demands, suits, actions, and lawsuits arise out of any of the aforesaid acts, errors, or omissions, the Contractor shall assume all costs of defending such claims, suits, actions, or lawsuits, including legal fees incurred by STA, any penalties imposed on STA or the Contractor, and all judgments that may be obtained against STA, or any of its officers, agents, or employees in such suits. Further, the Contractor waives immunity under the Industrial Insurance Act and assumes all liability for actions brought by him or his employees against STA for injuries in the performance of this Agreement. The Contractor represents this provision has been negotiated with STA.

- C. To the maximum extent permitted by law, STA shall indemnify and hold harmless the Contractor and all of Contractor's officers, employees, and agents from and against all claims, demands, suits, penalties and liability of any kind, including injuries to persons or damages to property, which arise out of or are due to any acts, errors, or omissions of STA, or STA's employees, agents, and representatives while engaged in the business of public transportation and with respect to its duties and obligations as fee owner of the real property which Contractor has been engaged to manage. In the event that any claims, investigations, demands, suits, actions, and lawsuits arise out of any of the aforesaid acts, errors, or omissions, STA shall assume all costs of defending such claims, suits, actions, or lawsuits, including legal fees incurred by Contractor, any penalties imposed on Contractor or STA, and all judgments that may be obtained against Contractor, or any of its officers, agents, or employees in such suits. STA represents this provision has been negotiated with Contractor.

PART 6: PAYMENTS AND COMPLETION

6.01 CONTRACT SUM

- A. **Owner Shall Pay Contract Sum.** Owner shall pay Contractor the Contract Sum plus state sales tax for performance of the Work, in accordance with the Contract Documents.

6.02 SCHEDULE OF VALUES

- A. **Contractor to Submit Schedule of Values.** Before submitting its first Application for Payment, Contractor shall submit to Owner for approval a Schedule of Values. The Schedule of Values shall include appropriate amounts for mobilization and demobilization, record drawings, Operations & Maintenance manuals, and any other requirements for Project closeout, and shall be approved and used by Owner as the basis for progress payments. Project closeout costs should be scheduled independent of any retainage amount. 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. **Statement of Intent to Pay Prevailing Wages.** The Statement of Intent to Pay Prevailing Wages for the Contractor and each Subcontractor must be on file with the Owner before commencement of work and before the first payment can be made.
- B. **Monthly Application for Payment with Substantiation.** 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.
1. Each Application for Payment must include a statement that prevailing wages have been paid by the contractor in accordance with the pre-filed statement or statements of Intent to Pay prevailing wages on file.
 2. If federally funded, certified weekly payrolls must be submitted with Application for Payment.
 3. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by the Owner.
 4. **Payment Application Times.** Progress payments will be made only for actual work performed or materials delivered.
 5. **Payment Application Forms.** Use the Form for Applications for Payment included in the addenda or preapproved format.
 6. Include amounts of Change Orders and Construction Change Directives issued prior to the last Day of the construction period covered by the application.

7. **Transmittal.** Submit one (1) executed copy of each Application for Payment to the Owner by means ensuring receipt within twenty-four (24) hours; one (1) copy shall be complete, including waivers of lien and similar attachments, when required.
 8. Transmit each copy with a transmittal form listing attachment(s), and recording appropriate information related to the application in a manner acceptable to the Owner.
 9. **Waivers of Mechanics Lien.** With each Application for Payment, submit waivers of lien from every entity who may lawfully be entitled to file a lien arising out of the Contract, and related to the work covered by the payment.
 10. The Contractor shall be paid, upon the submission of proper applications for payment, within thirty (30) Days after STA's approval of the Contractor's application.
- C. **Contractor Certifies Subcontractors Paid.** By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with RCW 60.28.011, 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.
- D. **Reconciliation of Work with Progress Schedule.** 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.
- E. **Payment for Material Delivered to Site or Stored Off-Site.** 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. **Suitable Facility or Location.** The material will be placed in a facility or location that is structurally sound, dry, lighted and suitable for the materials to be stored;
 2. **Facility or Location Within 10 Miles of Project.** The facility or location is located within a ten (10) mile radius of the Project. Other locations may be utilized, if approved in writing, by Owner;
 3. **Facility or Location Exclusive to Project's Materials.** Only materials for the Project are stored within the facility or location (or a secure portion of a facility or location set aside for the Project);
 4. **Insurance Provided on Materials in Facility or Location.** 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. **Facility or Location Locked and Secure.** The facility or location (or secure portion thereof) is continuously under lock and key, and only Contractor's authorized personnel shall have access;
 6. **Owner Right of Access to Facility or Location.** Owner shall at all times have the right of access in company of Contractor;
 7. **Contractor Assumes Total Responsibility for Stored Materials.** Contractor and its surety assume total responsibility for the stored materials; and
 8. **Contractor Provides Documentation and Notice When Materials Moved to Site.** 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 to Pay Within Thirty (30) Days.** Owner shall make progress payments, in such amounts as Owner determines are properly due, within thirty (30) Days after receipt of a properly executed and complete Application for Payment. Owner shall notify Contractor in accordance with chapter 39.76 RCW if the Application for Payment does not comply with the requirements of the Contract Documents.
- B. **Withholding Retainage; Options for Retainage.** When allowed by law, Owner shall retain five percent (5%) 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 chapter 60.28 RCW, 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.

1. When the Project is subject to Federal Assistance, the Owner shall rely upon the Contractor's Payment and Performance Bonds to satisfy (i) The claims of any person or persons arising under the contract to the extent such claims are provided for in RCW [39.08.010](#); and (ii) the state with respect to taxes, increases, and penalties incurred on the public improvement project under Titles [50](#), [51](#), and [82](#) RCW which may be due. The contract bond must remain in full force and effect until, at a minimum, all claims filed in compliance with chapter [39.08](#) RCW are resolved.

C. **Title Passes to Owner Upon Payment.** 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. **Interest on Unpaid Balances.** Payments due and unpaid in accordance with the Contract Documents may bear interest as specified in Chapter 39.76 RCW.

6.05 PAYMENTS WITHHELD

A. **Owner's Right to Withhold Payment.** 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. **Non-Compliant Work.** Work not in accordance with the Contract Documents;
2. **Remaining Work to Cost More Than Unpaid Balance.** Reasonable evidence that

the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum;

3. **Owner Correction or Completion Work.** Work by Owner to correct defective Work or complete the Work in accordance with Section 5.16;
4. **Contractor's Failure to Perform.** Contractor's failure to perform in accordance with the Contract Documents; or
5. **Contractor's Negligent Acts or Omissions.** Cost or liability that may occur to Owner as the result of Contractor's fault or negligent acts or omissions.

B. **Owner to Notify Contractor of Withholding for Unsatisfactory Performance.** 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 Chapter 39.76 RCW.

6.06 RETAINAGE AND BOND CLAIM RIGHTS

A. **Chapters 39.08 RCW and 60.28 RCW Incorporated by Reference.** Chapters 39.08 and 60.28 RCW, 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.

6.07 SUBSTANTIAL COMPLETION

A. **Substantial Completion Defined.** 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 has full and unrestricted use and benefit of the facilities (or portion thereof designated and approved by Owner) 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. **Prior Occupancy Defined; Restrictions.** 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. **Damage; Duty to Repair and Warranties.** Notwithstanding anything in the preceding Section, Owner shall be responsible for loss of or damage to the Work resulting from Prior Occupancy. Contractor's one (1) year duty to repair any system warranties shall begin on building systems activated and used by Owner as agreed in writing by Owner and Contractor.

6.09 FINAL INSPECTION, FINAL COMPLETION, ACCEPTANCE, AND PAYMENT (PROJECT CLOSE-OUT)

- A. **Final Inspection.** On receipt of a request for inspection, the Owner will either proceed with inspection or advise the Contractor of unfilled requirements. The Owner will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
- B. The Owner will repeat the inspection once when requested and assured that the work has been substantially completed. Subsequent inspections necessary to assure that the work has been substantially completed will be charged at the Owner representative's normal billing rate and a Construction Change Directive will be prepared to deduct the representative's charges from the Contract Sum.

1. The Owner will reinspect the work upon receipt of notice that the work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Owner.
2. Upon completion of reinspection, the Owner will prepare a certificate of Final Acceptance, or advise the Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for Final Acceptance.
- C. Before requesting final inspection for certification of Final Acceptance and final payment, Contractor must complete the following:
 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. Submit an updated final statement, accounting for final additional changes, if applicable, to the Contract Sum.
 3. Submit a certified copy of the Owner's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and the list has been endorsed and dated by the Owner.
 4. Submit a consent of surety to final payment.
 5. Submit a final liquidated damages settlement statement, if applicable.
 6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 7. Closeout and final payment of this project may be contingent upon completion and resolution of a Davis-Bacon Prevailing Wage audit.
 8. Remove temporary protection and facilities installed for protection of the work during construction.
 9. Assurance that unsettled claims will be settled.
 10. Assurance that work not complete and accepted will be completed without undue delay.
 11. Transmittal of required project construction records to Owner.

12. Proof that taxes, fees, and similar obligations have been paid.
 13. Removal of surplus materials (not belonging to STA), rubbish and similar elements.
 14. Affidavit of Wages Paid certification.
 15. If federally funded, submit final certified weekly payrolls.
 16. All required warranties have been written and submitted.
- D. **Final Completion Defined.** 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, but in no case shall constitute Final Acceptance which is a subsequent, separate, and distinct action.
- E. **Final Acceptance Defined.** Final Acceptance shall be achieved when the Contractor has completed the requirements of the Contract Documents. The date Final Acceptance is achieved shall be established by Owner in writing. 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 payment and performance, or constitute a waiver of any claims by Owner arising from Contractor's failure to perform the Work in accordance with the Contract Documents.
1. Final payment (retainage or release of bond where applicable) cannot be made until Release of Lien Notices have been received from the Washington State Department of Revenue, Employment Security Department, and L&I, if applicable.
- F. **Final Payment Waives Claim Rights.** 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 identified in the Contract Documents.
- G. **Prior to and/or contemporaneous with, Final Acceptance the following must be complete:**
1. Contractor must submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents;
 2. Contractor must obtain and submit releases enabling the Owner unrestricted use of the work and access to services and utilities; include occupancy permits, operating certificates, and similar releases as applicable;
 3. Contractor must complete final clean up requirements; and
 4. Contractor must arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives.

PART 7: CHANGES

7.01 CHANGE IN THE WORK

- A. **Changes in Work, Contract Sum, And Contract Time by Change Order.** 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. **Owner May Request COP from Contractor.** 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 fourteen (14) 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. **COP Negotiations.** 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. **Change Order as Full Payment and Final Settlement.** 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. **Failure to Agree Upon Terms of Change Order; Final Offer and Claims.** 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 thirty (30) 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 Authorizations.** The Owner may direct the Contractor to proceed with a change in the Work through a written "Field Authorization" (also referred to as a "Field Order") when the time required to price and execute a Change Order would impact the Project.

The Field Authorization shall describe and include the following:

1. The Scope of change to the Work;
2. An estimated amount to perform the scope of the change to the Work;
3. Any estimated change to the Contract Time; and
4. The method of final cost determination in accordance with the requirements of Section 7.02A.3 of the GC; and

Upon satisfactory submittal by the Contractor and approval by the Owner of supporting cost data a Change Order will be executed. The Owner will not make payment to the Contractor for Field Authorization Work until that work has been incorporated into an executed Change Order.

7.02 CHANGE IN THE CONTRACT SUM

A. General Application

1. **Contract Sum Changes Only by Change Order.** 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. **Owner Fault or Negligence as Basis for Change in Contract Sum.** 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 3.05A.
 - a. **Notice and Record Keeping for Equitable Adjustment.** A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to Owner within seven (7) 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. **Content of Notice for Equitable Adjustment; Failure to Comply.**

Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that occurred more than seven (7) 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. **Contractor to Provide Supplemental Information.**

Within thirty (30) 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 Section 7.02A.2.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. **Contractor to Proceed with Work as Directed.**

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. **Contractor to Combine Requests for Same Event Together.**

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. **Methods for Calculating Change Order Amount.**

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. **Fixed Price.** On the basis of a fixed price as determined in Section 7.02B.

b. **Unit Prices.** By application of unit prices to the quantities of the items involved as determined in Section 7.02C.

c. **Time and Materials.** On the basis of time and material as determined in Section 7.02D.

d. **Fixed Price Method Is Default; Owner May Direct Otherwise.** When Owner has requested Contractor to submit a Change Order Proposal, Owner may direct Contractor as to which method in Section 7.02A.3 to use when submitting its proposal. Otherwise, Contractor shall determine the value of the Work, or of a request for an equitable adjustment, on the basis of the fixed price method.

B. **Change Order Pricing -- Fixed Price**

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

1. **Breakdown and Itemization of Details on COP.** 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. **Use of Industry Standards in Calculating Costs.** All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.
3. **Costs Contingent on Owner's Actions.** If any of the 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. **Markups on Additive and Deductive Work.** 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. **Breakdown Not Required If Change Less Than \$1,000.** 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. **Breakdown Required If Change Between \$1,000 And \$2,500.** 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 in accordance with Section 7.02B.7.f;
 - e. profit in accordance with Section 7.02B.7.g; and
 - f. insurance and bond costs in accordance with Section 7.02B.7.h.
7. **Components of Increased Cost.** Any request for adjustment of Contract Sum based upon the fixed price method over \$2,500 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 L&I approved Intent or Davis-Bacon prevailing wages, or a higher amount if approved by the Owner. Direct supervision shall be a reasonable percentage not to exceed fifteen percent (15%) of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.
 - (2) **Worker's Compensation Insurance.** Direct contributions to the state of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by L&I.
 - (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, shall be consistent with Owner's policy allowing reimbursement or allotment of amounts actual, reasonable, and necessary. Owner's full policy regarding Travel is available on request.

- (5) **Safety.** Cost incurred due to the Washington Industrial Safety and Health Act, which shall be a reasonable percentage not to exceed two percent (2%) 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.
 - (5) The EquipmentWatch 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 & 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) **3% For Contractor.** For Contractor, three percent (3%) of direct labor costs.
 - (2) **5% For Subcontractors.** For Subcontractors, five percent (5%) 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. If the Contractor is compensated under Section 7.03D, the amount of such compensation shall be reduced by the amount Contractor is otherwise entitled to under this Section . This allowance shall compensate Contractor for all non-craft labor, temporary construction facilities, field engineering, schedule updating, as-built 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) **Projects Less Than \$3 Million.** For projects where the Contract Award Amount is under \$3 million, the following shall apply:
- (a) **Contractor Markup on Contractor Work.** For Contractor, for any Work actually performed by Contractor's own forces, shall not exceed sixteen percent (16%) of the first \$50,000 of the cost, and four percent (4%) of the remaining cost, if any.
 - (b) **Subcontractor Markup for Subcontractor Work.** For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, shall not exceed sixteen percent (16%) of the first \$50,000 of the cost, and four percent (4%) of the remaining cost, if any.
 - (c) **Contractor Markup for Subcontractor Work.** For Contractor, for any work performed by its Subcontractor(s), shall not exceed six percent (6%) of the first \$50,000 of the amount due each Subcontractor, and four percent (4%) of the remaining amount if any.
 - (d) **Subcontractor Markup for Lower Tier Subcontractor Work.** For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, shall not exceed four percent (4%) of the first \$50,000 of the amount due the sub-Subcontractor, and two percent (2%) of the remaining amount if any.
 - (e) **Basis of Cost Applicable for Markup.** The cost to which overhead is to be applied shall be developed in accordance with Sections 7.02B.7.a through 7.02B.7.e.
- (2) **Projects More Than \$3 Million.** for projects where the Contract Award Amount is equal to or exceeds \$3 million, the following shall apply:
- (a) **Contractor Markup on Contractor Work.** For Contractor, for any Work actually performed by Contractor's own forces, shall not exceed twelve percent (12%) of the first \$50,000 of the cost, and four percent (4%) of the remaining cost, if any.
 - (b) **Subcontractor Markup for Subcontractor Work.** For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, shall not exceed twelve percent (12%) of the first \$50,000 of the cost, and four percent (4%) of the remaining cost, if any.
 - (c) **Contractor Markup for Subcontractor Work.** For Contractor, for any Work performed by its Subcontractor(s), shall not exceed four percent (4%) of the first \$50,000 of the amount due each Subcontractor, and two percent (2%) of the remaining amount if any.
 - (d) **Subcontractor Markup for Lower Tier Subcontractor Work.** For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, shall not exceed four percent (4%) of the first \$50,000 of the amount due the sub-Subcontractor, and two percent (2%) of the remaining amount if any.
 - (e) **Basis of Cost Applicable for Markup.** The cost to which overhead is to be applied shall be developed in accordance with Sections 7.02B.7.a through 7.02B.7.e.
 - g. **Allowance for Profit.** This allowance for profit 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) **Contractor/Subcontractor Markup for Self-Performed Work.** For Contractor or Subcontractor of any tier for work performed by their forces, six percent (6%) of the cost developed in accordance with Sections 7.02B.7.a through 7.02B.7.e.

(2) **Contractor/Subcontractor Markup for Work Performed at Lower Tier.** For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, shall not exceed four percent (4%) of the subcontract cost developed in accordance with Sections 7.02B.7.a through 7.02B.7.h.

h. **Insurance and Bond Premiums.** 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) **Payment and Performance Bond.** The cost of the additional premium for Contractor's bond arising directly from the changed Work.

The cost of any change in insurance or bond premium shall be added after overhead and allowance for profit are calculated in accordance with Sections 7.02B.7.f and 7.02B.7.g.

C. **Change Order Pricing -- Unit Prices**

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

a. **Scope.** Scope of work to be performed;

b. **Reimbursement Basis.** Type of reimbursement including pre-agreed rates for material quantities; and

c. **Reimbursement Limit.** Cost limit of reimbursement.

2. **Contractor Responsibilities.** 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. **Cost Breakdown Consistent with Fixed Price Requirements.** Contractor shall submit costs in accordance with Section 7.02B and satisfy the following requirements:

a. **Unit Prices Must Include Overhead, Profit, Bond and Insurance Premiums.** Unit prices shall include reimbursement for all direct and indirect costs of the Work, including overhead, profit, bond, and insurance costs; and

b. **Owner Verification of Quantities.** Quantities must be supported by field measurement statements approved by Owner.

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

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

a. **Scope.** Scope of Work to be performed;

b. **Reimbursement Basis.** Type of reimbursement including pre-agreed rates, if any, for material quantities or labor; and

c. **Reimbursement Limit.** Cost limit of reimbursement.

2. **Contractor responsibilities.** Contractor shall:

- a. **Identify Workers Assigned.** 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. **Provide Daily Timesheets.** Identify on daily time sheets all labor performed in accordance with this authorization. Submit copies of daily time sheets within two (2) business days for Owner's review;
 - c. **Allow Owner to Measure Quantities.** Leave access as appropriate for quantity measurement;
 - d. **Perform Work Efficiently.** Perform all Work in accordance with this Section as efficiently as possible; and
 - e. **Not Exceed Owner's Cost Limit.** Not exceed any cost limit(s) without Owner's prior written approval.
3. **Cost Breakdown Consistent with Fixed Price Requirements.** Contractor shall submit costs in accordance with Section 7.02B and additional verification supported by:
- a. **Timesheets.** Labor detailed on daily time sheets; and
 - b. **Invoices.** Invoices for material.

7.03 CHANGE IN THE CONTRACT TIME

- A. **COP Requests for Contract Time.** 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. **Time Extension Permitted If Not Contractor's Fault.** 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. **Notice and Record Keeping for Contract Time Request.** A request for an equitable

adjustment in the Contract Time shall be based on written notice delivered within seven (7) 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. **Timing and Content of Contractor's Notice.** Contractor shall not be entitled to an adjustment in the Contract Time for any events that occurred more than seven (7) 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. **Contractor to Provide Supplemental Information.** Within thirty (30) 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 Section 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. **Contractor to Proceed with Work as Directed.** Pending final resolution of any request in accordance with this Section, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
- C. **Contractor to Demonstrate Impact on Critical Path of Schedule.** 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. **Cost of Change in Contract Time.** Contractor may request compensation for the cost of a change in Contract Time in accordance with this Section, 7.03.D, subject to the following conditions:
1. **Must Be Solely Fault of Owner Or A/E.** The change in Contract Time shall solely be caused by the fault or negligence of Owner or A/E;
 2. **Procedures.** Contractor shall follow the procedure set forth in Section 7.03B;
 3. **Demonstrate Impact on Critical Path.** Contractor shall establish the extent of the change in Contract Time in accordance with Section 7.03C; and
 4. **Limitations on Daily Costs.** The daily cost of any change in Contract Time shall be limited to the items below, less the amount of any change in the Contract Sum the Contractor may otherwise be entitled to pursuant to Section 7.02B.7.f for any change in the Work that contributed to this change in Contract Time:
 - a. **Non-Productive Supervision of Labor.** Cost of nonproductive field supervision or labor extended because of the delay;
 - b. **Weekly Meetings and Indirect Activities.** Cost of weekly meetings or similar indirect activities extended because of the delay;
 - c. **Temporary Facilities or Equipment Rental.** Cost of temporary facilities or equipment rental extended because of the delay;
 - d. **Insurance Premiums.** Cost of insurance extended because of the delay;
 - e. **Overhead.** General and administrative overhead in an amount to be agreed upon, but not to exceed three percent (3%) of the Contract Award Amount divided by the originally specified Contract Time for each Day of the delay.
- PART 8: CLAIMS AND DISPUTE RESOLUTION
- 8.01 CLAIMS
- A. **A Claim is Contractor's Remedy.** If the parties fail to reach agreement on the terms of any Change Order for Owner-directed Work as provided in Section 7.01, on the resolution of any request for an equitable adjustment in the Contract Sum as provided in Section 7.02, the Contract Time as provided in Section 7.03, or any dispute interpretation of the parties respective obligations and duties under the Contract documents Contractor's only remedy shall be to file a Claim with Owner as provided in this Section.
- B. **Claim Filing Deadline for Contractor.** Contractor shall file its Claim within one-hundred-twenty (120) Days from Owner's final offer made in accordance with Section 7.01E or by the date of Final Acceptance, whichever occurs first.
- C. **Claim Must Cover All Costs and Be Documented.** 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. **Factual Statement of Claim.** 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. **Dates.** The date on which facts arose that gave rise to the claim;
 3. **Owner and A/E Employee's Knowledgeable About Claim.** The name of each employee of Owner or A/E knowledgeable about the Claim;
 4. **Support from Contract Documents.** The specific provisions of the Contract Documents which support the Claim;
 5. **Identification of Other Supporting Information.** The identification of any documents and the substance of any oral communications that support the Claim;
 6. **Copies of Supporting Documentation.** Copies of any identified documents, other than the Contract Documents, that support the Claim;
 7. **Details on Claim for Contract Time.** 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. **Details on Claim.** for adjustment of Contract Sum: 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 as required by Section 7.02; and
 9. **Statement Certifying Claim.** 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. **Response to Claim Filed.** After Contractor has submitted a fully documented Claim that complies with all applicable provisions of Parts 7 and 8, Owner's Contract Compliance Specialist ("CCS"), or their designee, shall respond, in writing, to Contractor as follows:
1. **Response Time for Claim Less Than \$50,000.** If the Claim amount is less than \$50,000, with a decision within sixty (60) Days from the date the Claim is received; or
 2. **Response Time for Claim Of \$50,000 Or More.** If the Claim amount is \$50,000 or more, with a decision within sixty (60) 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. **Review of Claim and Finality of Decision.** To assist in the review of Contractor's Claim, Owner's CCS, or their designee, 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 CCS' 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. **Waiver of Contractor Rights for Failure to Comply with This Section.** 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 made in accordance with the requirements of this Section.
- G. **Finality of Decision.** The CCS' decision shall be final and conclusive unless within ten (10) Days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the Chief Executive Officer ("CEO") of STA. STA's CEO review of the Contracting Officer's decision is limited to a review and decision issued on the same record presented to the Contracting Officer.
- H. **Appeal Procedure.** In connection with appeal to CEO, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of this Contract while matters in dispute are being resolved. The final decision of the CEO shall be binding upon the Contractor and the Contractor shall abide by the decision. The only available review is by an arbitrator as provided below and the applicable standard of review is whether the CEO's decision was arbitrary and capricious.

8.02 ARBITRATION

- A. **Timing of Contractor’s Demand for Review of CEO’s Decision by Third-Party Neutral (Arbitration).** If Contractor disagrees with CEO’s decision rendered in accordance with Section 8.01H, Contractor shall provide Owner with a written demand for review by a third-party neutral (arbitration). No demand for arbitration of any such Claim shall be made later than thirty (30) Days after the date of the CEO’s decision on such Claim. Failure to demand arbitration within said thirty (30) Day period shall result in the CEO’s decision being final and binding upon Contractor and its Subcontractors.
- B. **Selection of The Third-Party Neutral (Arbitrator).** The parties shall mutually select a third-party neutral to review the parties’ claims within the confines of the decision issued by the CEO. If the parties are unable to mutually select a third-party neutral, they shall each appoint a neutral and the two appointed neutrals shall agree to the appointment of the third-party neutral who will preside over the matter.
- C. **Standard of Review.** The arbitrator’s review shall be limited to determining whether the CEO acted arbitrarily and capriciously in issuing its decision. Decisions issued under the Administrative Procedures Act may guide the arbitrator in determining whether the CEO acted arbitrarily and capriciously.
- D. **Costs of Arbitration.** The costs of arbitration will be borne by the party against whom judgment is issued. To the extent neither party substantially prevails at arbitration, the parties will split equally the costs associated with the arbitration.
- E. **Arbitration is Forum for Resolving Claims Other Than Those Identified Under Part 8 Above.** 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.
- F. **Owner May Combine Claims into Same Arbitration.** 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.

- G. **Settlement Outside of Arbitration to Be Documented in Change Order.** 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. **Owner May Audit Claims.** 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. **Contractor to Make Documents Available.** 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 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 nonprivileged 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. **Contractor to Provide Facilities for Audit and Shall Cooperate.** 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. **Seven (7) Day Notice to Terminate for Cause.** Owner may, upon seven (7) 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 Work.** 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 Bankrupt.** 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 to Correct Work.** Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;
 4. **Contractor Fails to Supply Workers or Materials.** Contractor repeatedly fails to supply skilled workers or proper materials or equipment;
 5. **Contractor Failure to Pay Subcontractors or Labor.** Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor;
 6. **Contractor Violates Laws.** Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
 7. **Contractor in Material Breach of Contract.** Contractor is otherwise in material breach of any provision of the Contract Documents.
- B. **Owner's Actions Upon Termination.** Upon termination, Owner may at its option:
1. **Take Possession of Project Site.** 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.** Accept assignment of subcontracts pursuant to Section 5.20; and
 3. **Finish the Work.** Finish the Work by whatever other reasonable method it deems expedient.
- C. **Surety's Role.** 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. **Contractor's Required Actions.** When Owner terminates the Work in accordance with this Section, Contractor shall take the actions set forth in Section 9.02B and shall not be entitled to receive further payment until the Work is accepted.
- E. **Contractor to Pay for Unfinished Work.** 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. **Contractor and Surety Still Responsible for Work Performed.** Termination of the Work in accordance with this Section shall not relieve Contractor or its surety of any responsibilities for Work performed.
- G. **Conversion Of "Termination for Cause" To "Termination for Convenience".** If Owner terminates Contractor for cause, and it is later determined that none of the circumstances set forth in Section 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 Notice of Termination for Convenience.** 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. **Contractor Response to Termination Notice.** Unless Owner directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:
1. **Cease Work.** Stop performing Work on the date and as specified in the notice of termination;
 2. **No Further Orders or Subcontracts.** 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 Orders and Subcontracts.** Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated;
 4. **Assign Orders and Subcontracts to Owner.** Assign to Owner all of the right, title, and interest of Contractor in all orders and subcontracts;
 5. **Take Action to Protect the Work.** 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 Not Terminated.** Continue performance only to the extent not terminated.
 7. **Owner's Property.** If the Contractor has any property in its possession belonging to STA, the Contractor will account for the same, and return it to STA or dispose of it in the manner STA directs.
- C. **Terms of Adjustment in Contract Sum If Contract Terminated.** 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. **Owner to Determine Whether to Adjust Contract Time.** 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 & VENUE

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 Superior Court of Spokane County, Washington.

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. 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 EMPLOYEE SOLICITATION

Contractor, without the written consent of Owner, shall not directly or indirectly solicit, influence, entice or hire or attempt to solicit, influence, entice or hire any employee of Owner to: (a) cease employment with Owner; or (b) do business related to a business connected with the Contractor's

business during this Agreement and for a period of three (3) years from the date on which the Agreement terminates, or the Work is accepted by Owner, whichever is earlier. Owner's employees shall be deemed to be related to or connected with a Contractor if such Owner employee becomes (a) a partner in a general or limited partnership or employee of a partnership; or (b) a shareholder, officer, employee or director of a corporation, member, consultant or agent for the Contractor or any of Contractor's affiliates, subsidiaries or connected business. This Section shall survive the termination of the Contract. This Contract is not restricted to any geographical area.

Contractor recognizes and acknowledges that Owner's employees may receive training and other benefits from its contractual relationship with Owner because of Owner's assignment of employees to work in connection with the Contract. Contractor agrees the restrictions on soliciting, influencing, enticing or hiring Owner employees are reasonable.

10.05 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 action or failure to act constitute approval or an acquiescence in a breach therein, except as may be specifically agreed in writing.

10.06 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.

10.07 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.

10.08 PUBLIC RECORDS ACT

Each Party to the Contract understands and acknowledges the Owner is a municipal corporation of the State of Washington subject to the “Public Records Act”, RCW 42.56 *et seq.*

Contractor understands and agrees that the records it obtains or produces under this Agreement may be public records under the Public Records Act, or its successor act. The Contractor shall cooperate in a timely manner with Owner in responding to a public records request (“PRR”) related to this Agreement or the goods/services provided under this Agreement. Such cooperation shall include searching all records regarding the Work and producing all records that are potentially responsive to a PRR to Owner. Contractor shall mark and segregate all materials in its possession that may be protected by the Public Records Act to protect against inadvertent disclosure of such documents and to facilitate Owner’s application of allowable Public Records Act exemptions. Contractor shall not charge Owner for the time spent gathering and producing records pursuant to a PRR.

10.09 RECORDS RETENTION

The wage, payroll and cost records of Contractor, and its Subcontractors created or used for the Project, shall be retained for a period of not less than six (6) years after the date of Final Acceptance.

10.10 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.

10.11 HEADINGS AND CAPTIONS

All headings and captions used in these GC 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 GC, and do not define the limit or describe the scope or intent of any provision of these GC.

10.12 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.

10.13 CONFLICT OF INTEREST

No employee, officer or agent of Owner shall participate in the selection, award or administration of the Contract if a conflict of interest, real or apparent, would be involved. Such conflict would arise when:

- A. The employee, officer or agent;
 - B. any member of his or her immediate family;
 - C. his or her partner; or
 - D. an organization which employs, or is about to employ, an employee, officer or agent of STA
- has a financial interest in the firm, Contractor or Subcontractors, of any tier, selected for Award.

10.14 COUNTERPARTS

The Contract may be executed in one or more counterparts, each of which shall constitute an original Contract, but all of which together shall constitute one and the same instrument.

10.15 ELECTRONIC SIGNATURES

A signed copy of this Agreement or any other ancillary agreement transmitted by facsimile, email or other means of electronic transmission shall be deemed to have the same legal effect as delivery of any original executed copy of this Agreement or such other ancillary agreement for all purposes.

END OF SECTION 007200

SECTION 007200.2 – MODIFICATIONS TO PUBLIC WORKS GENERAL CONDITIONS

Section 7200.1 – Public Works General Conditions shall be modified as follows:

1. Section 1.02 ORDER OF PRECEDENCE, shall be removed and replaced with the following:

ORDER OF PRECEDENCE

- a. Any conflict or consistency in the Contract Documents shall be resolved by giving the documents precedence in the following order:
 - (1) Federal Terms & Conditions, if applicable.
 - (2) Executed Change Order(s), in descending order.
 - (3) Executed Form of Contract.
 - (4) Division 0, Section 007300 – Supplemental Conditions, if applicable.
 - (5) Division 0, Section 007200.2 – Modifications to General Conditions, if applicable.
 - (6) Division 0, Section 007200.1 – Public Works General Conditions.
 - (7) Division 0
 - (8) Project Specifications and Special Provisions.
 - (9) Drawings. In case of conflict within the Drawings, large scale drawings shall take precedence over small scale drawings.
 - (10) Signed and Completed Bid Form.
 - (11) Instructions to Bidders.
 - (12) Advertisement for Bids.

All other terms and conditions of Section 7200.1 – Public Works General Conditions shall remain unchanged.

END OF SECTION 007200.2

SECTION 007200.3 – FEDERAL TERMS & CONDITIONS 03.25.21

1. **DEFINITIONS**

The following capitalized terms shall be defined as follows throughout these Federal Terms & Conditions (“T&C”). In the event of a conflict between these T&C and the document(s) to which they are attached, the terms of these T&C shall prevail.

Terms which are capitalized herein, but not defined hereunder, will have the same definition and meaning as used in the document(s) to which these T&C are attached. In the event of a conflict between the definition of a defined term in these T&C and the document(s) to which they are attached, the definition used in these T&C shall prevail in the interpretation of these T&C.

Term	Definition
ADA	Americans with Disabilities Act of 1990, as amended.
CFR	Code of Federal Regulations
DBE	Disadvantaged Business Enterprise
DOJ	United States Department of Justice
DOL	United States Department of Labor
DOT	United States Department of Transportation
EEOC	Equal Employment Opportunity Commission
EPA	United States Environmental Protection Agency
FHWA	United States Federal Highway Administration
FTA	Federal Transit Administration
GSA	United States General Services Administration
SAT	Federal Simplified Acquisition Threshold; Currently \$250,000.
T&C	These Federal Terms & Conditions.
US	United States of America
USC	United States Code

2. **FLY AMERICA**

- A. Applicability: All contracts involving transportation of persons or property by air between the US and/or places outside the US.
- B. Contractor shall comply with 49 USC 40118 (the “Fly America” Act) in accordance with General Services Administration regulations 41 CFR 301-10, stating that recipients and subrecipients of Federal funds and their contractors are required to use US Flag air carriers for US Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a US flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements.
- C. Contractor shall include the requirements of this section in all subcontracts that may involve international air transportation.

3. **BUY AMERICA**

- A. Applicability: Construction contracts and acquisition of goods or “Rolling Stock” valued at more than \$150,000.
- B. Contractor shall comply with 49 USC 5323(j) and 49 CFR 661, stating that Federal funds may not be obligated unless steel, iron and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7, and include software, microcomputer equipment and small purchases (currently less than \$150,000) made with capital, operating or planning funds.

Separate requirements for Rolling Stock are stated at 5323(j)(2)(C) and 49 CFR 661.11. Rolling Stock must be manufactured in the US and have a minimum 65% domestic content for FY2018 and FY2019 and a minimum 70% domestic content for FY2020 and beyond. A Proposer shall submit appropriate Buy America certification to STA with all bids on FTA-funded contracts, except those subject to a general waiver. Proposals not accompanied by a completed Buy America certification shall be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

4. CHARTER SERVICE

- A. Applicability: Operational service contracts.
- B. Contractor shall comply with 49 USC 5323(d) and (r) and 49 CFR part 604, which state that recipients and subrecipients of FTA assistance may not provide charter service using equipment or facilities acquired with Federal assistance if there is at least one private charter operator willing and able to provide the service, except as permitted by:
 - 1) 49 USC 5323(d) or other Federal transit laws;
 - 2) 49 CFR part 604;
 - 3) Any other federal Charter Service regulations; or
 - 4) Federal guidance, except as FTA determines otherwise in writing.
- C. The Contractor agrees that if it engages in a pattern of violations of FTA's Charter Service regulations, FTA may require corrective measures or impose remedies, which may include:
 - 1) Barring STA, the Contractor or any subcontractor operating public transportation from receiving Federal assistance;
 - 2) Withholding an amount of federal assistance from STA as provided by Appendix D to 49 part 604; or
 - 3) Any other appropriate remedy.
- D. Contractor shall include this clause in each subcontract for the operation of public transit services.

5. SCHOOL BUS OPERATIONS

- A. Applicability: Operational service contracts.
- B. Pursuant to 49 USC 5323(f) and 49 CFR part 605, Contractor and any of its subcontractors shall not engage in school bus operations exclusively for transportation of students and school personnel in competition with private school bus operators unless permitted under specified exemptions. When operating exclusive school bus service under an allowable exemption, Contractor and any of its subcontractors shall not use federally funded equipment, vehicles or facilities.
- C. Violations. If STA, the Contractor and any of its subcontractors operate school bus service in violation of FTA's School Bus laws and regulations, FTA may:
 - 1) Require STA, the Contractor and any of its subcontractors to take such remedial measures as FTA considers appropriate; or
 - 2) Bar STA, the Contractor and any of its subcontractors from receiving Federal transit funds.

6. CARGO PREFERENCE

- A. Applicability: Contracts involving equipment, materials or commodities which may be transported by ocean vessels.
- B. Contractor shall abide by the provisions of 46 CFR 381 as follows:
 - 1) Use privately owned US-Flag commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for US flag commercial vessels; and

- 2) Furnish within 20 working days following the loading date of shipments originating within the US or within 30 working days following the loading date of shipments originating outside the US, a legible copy of a rated, "on-board" commercial bill-of-lading in English for each shipment of cargo described herein to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to STA (through contractor in the case of a subcontractor's bill-of-lading.); and
- 3) include these requirements in all subcontracts issued pursuant to this Contract when the subcontract involves the transport of equipment, material or commodities by ocean vessel.

7. SEISMIC SAFETY

- A. Applicability: Architectural & Engineering contracts; Construction contracts for new buildings or additions to existing buildings.
- B. Contractor agrees that any new building or addition to an existing building shall be designed and constructed in accordance with the standards required in DOT Seismic Safety Regulations 49 CFR 41 and shall certify compliance to the extent required by the regulation. Contractor shall also ensure that all work performed under this contract, including work performed by subcontractors, complies with the standards required by 49 CFR 41 and the certification of compliance issued on the project.

8. ENERGY CONSERVATION

- A. Applicability: All Contracts.
- B. Contractor shall comply with mandatory standards and policies relating to energy efficiency stated in the Washington State energy conservation plan issued in compliance with the Energy Policy & Conservation Act (42 USC 6201 *et seq.*), and perform an energy assessment for any buildings constructed or altered in accordance with FTA *Requirements for Energy Assessments*, at 49 CFR part 622, subpart C.

9. CLEAN WATER

- A. Applicability: All Contracts and subcontracts over \$150,000.
- B. Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC 1251 *et seq.* Contractor shall report each violation to STA and understands and agrees that STA shall, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.
- C. Contractor shall include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with FTA assistance.

10. BUS TESTING

- A. Applicability: Rolling Stock purchase or lease contracts.
- B. Contractor [Manufacturer] shall comply with the Bus Testing requirements under 49 USC 5318(e) and FTA's implementing regulation at 49 CFR part 665 to ensure that the requisite testing is performed for all new bus models, or any bus model with a major change in configuration or components, and that the bus model has achieved a passing score. Upon completion of the testing, the Contractor [Manufacturer] shall obtain a copy of the bus testing reports from the operator of the testing facility and make the report(s) available to the public prior to final acceptance of the first vehicle by STA or another recipient.

11. PRE-AWARD & POST-DELIVERY AUDIT REQUIREMENTS

- A. Applicability: Rolling Stock (revenue service) purchases.
- B. Contractor shall comply with 49 USC 5323(m) and FTA's implementing regulation 49 CFR part 663 and submit the following certifications:

- 1) Buy America Requirements. Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If contractor certifies compliance with Buy America, it shall submit documentation listing:
 - a) Component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and
 - b) The location of the final assembly point for the Rolling Stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.
 - 2) Solicitation Specification Requirements. Contractor shall comply with the Buy America certification(s) submitted with its the bid specifications.
 - 3) Federal Motor Vehicle Safety Standards (FMVSS). Contractor shall submit:
 - a) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS; or
 - b) manufacturer's certified statement that the buses will not be subject to FMVSS regulations.
- C. Contractor shall participate and cooperate in any pre-award and post-delivery audits performed pursuant to 49 CFR part 663 and related FTA guidance.

12. LOBBYING

- A. Applicability: All contracts over \$100,000.
- B. Contractor shall execute the Lobbying Restriction Certificate attached to this Contract.

13. ACCESS TO RECORDS AND REPORTS

- A. Applicability: All contracts.
- B. The following access to records requirements apply to this Contract:
 - 1) Access to Records. Under 49 USC 5325(g), FTA has the right to examine all records, documents, papers and contracts related to any FTA funded project. Therefore, Contractor shall permit FTA and its contractors' access and rights to reproduce or copy project related documents. Pursuant to 49 CFR part 633, this provision extends to any Project Management Oversight ("PMO") contractor if the federally funded contract is used in a major capital project as defined therein.
 - 2) Records Retention. Pursuant to 2 CFR 200.333 Contractor shall retain, and shall require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to this Contract, including, but not limited to books, accounts, reports, data, documents, statistics, sub-agreements, leases, subcontracts, arrangements other third-party agreements of any type, and supporting materials related to those records for a period of not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case Contractor shall maintain such records until the disposition of all such litigation, appeals, claims or exceptions related thereto.
 - 3) Access to the Sites of Performance. The Contractor agrees to permit STA, FTA and its contractors' access to the sites of performance under this Contract as reasonably may be required.
 - 4) Contractors shall include these requirements in their contracts and subcontracts with third parties at every tier.

14. FEDERAL CHANGES

- A. Applicability: All contracts.
- B. Contractor shall comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between STA and FTA, as they may be amended or promulgated from time to time during the term of this Contract. Contractor's failure to comply shall constitute a material breach of this Contract.

15. BONDING REQUIREMENTS

- A. Applicability: All bonds are required for construction or facility improvement contracts or subcontracts exceeding the SAT.
- B. Bid Bond
- 1) A bid bond equivalent to five percent (5%) of the bid price must be issued by a fully qualified surety company acceptable to STA and listed as a company currently authorized under 31 CFR, part 223 as possessing a Certificate of Authority as described thereunder.
 - 2) Rights Reserved
 - a) In submitting its bid, it is understood and agreed by Contractor that the right is reserved by STA to reject any and all bids, or part of any bid, and it is agreed that the bid may not be withdrawn for a period of ninety (90) days subsequent to the opening of bids, without the written consent of STA.
 - b) It is also understood and agreed that if the Contractor should withdraw any part or all of its bid within ninety (90) days after the bid opening without the written consent of STA, shall refuse or be unable to enter into this Contract, as provided above, or refuse or be unable to furnish adequate and acceptable performance and/or payment bond(s), or refuse or be unable to furnish adequate and acceptable insurance, Contractor shall forfeit its bid bond to the extent of STA's damages occasioned by such withdrawal, or refusal, or inability to enter into a Contract, or provide adequate security therefor.
 - c) It is further understood and agreed that to the extent the Contractor's bid bond (excluding any income generated thereby which has been retained by STA as provided in the Instructions to Bidders) shall prove inadequate to fully recompense STA for the damages occasioned by default, then the Contractor agrees to indemnify STA and pay over to STA the difference between the bid bond and STA's total damages, so as to make STA whole.
 - d) The Contractor understands that any material alteration of any of the above or any of the material contained on this form, other than that requested, will render the bid unresponsive.
- C. Performance and Payment Bonds - Construction. The Contractor shall be required to obtain performance and payment bonds as follows:
- 1) Performance bonds
 - a) The penal amount of performance bonds shall be one hundred percent (100%) of the original Contract sum, unless FTA determines in writing that a lesser amount would be adequate for the protection of the Federal interest. The bond shall be issued by a fully qualified surety company acceptable to STA and listed as a company currently authorized under 31 CFR part 223 as possessing a Certificate of Authority as described thereunder.
 - b) STA may require additional performance bond protection when the Contract sum is increased. The increase in protection shall generally equal one hundred percent (100%) of the increase in Contract sum. STA may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
 - 2) Payment bonds
 - a) The penal amount of the payment bonds shall be one hundred percent (100%) of the original Contract sum, unless FTA determines in writing that a lesser amount would be adequate for the protection of the Federal interest. The bond shall be issued by a fully qualified surety company acceptable to STA and listed as a company currently authorized under 31 CFR part 223 as possessing a Certificate of Authority as described thereunder.
 - b) STA may require additional payment bond protection when the Contract sum is increased. The increase in protection shall generally equal one hundred percent (100%) of the increase in Contract sum. STA may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

16. CLEAN AIR

- A. Applicability – All contracts and subcontracts over \$150,000.
- B. Contractor shall comply with all applicable standards, orders or regulations pursuant to the Clean Air Act, 42 USC 7401 *et seq.* Contractor shall report each violation to STA and understands and agrees that STA will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.
- C. Contractor shall include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with FTA assistance.

17. RECYCLED PRODUCTS

- A. Applicability. All contracts for items designated by the EPA when STA or Contractor procures \$10,000 or more of one of these items during the current or previous fiscal year using Federal funds.
- B. The Contractor agrees to provide a preference for those products and services that conserve natural resources, protect the environment and are energy efficient by complying with and facilitating compliance with the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), 42 USC 6962 *et seq.*, as amended, and the US Environmental Protection Agency’s regulation titled *Comprehensive Procurement Guideline for Products Containing Recovered Materials*, 40 CFR part 247.

18. EMPLOYEE PROTECTIONS (DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS, DOL WORK HOURS AND SAFETY STANDARDS)

- A. Applicability. Construction contracts and subcontracts, including actual construction, alteration and/or repair, including decorating and painting.
- B. Prevailing Wage and Anti-Kickback.
 - 1) For all prime construction, alteration or repair contracts in excess of \$2,000 awarded by STA, the Contractor shall comply with the Davis-Bacon Act and the Copeland “Anti-Kickback” Act. Under 49 USC § 5333(a), prevailing wage protections apply to laborers and mechanics employed on FTA assisted construction, alteration or repair projects. The Contractor will comply with the *Davis-Bacon Act*, 40 USC §§ 3141-3144 and 3146-3148, as supplemented by DOL regulations at 29 CFR part 5, *Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction*. In accordance with the statute, the Contractor shall pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, the Contractor agrees to pay wages not less than once per week. The Contractor shall also comply with the *Copeland “Anti-Kickback” Act*, 40 USC § 3145, as supplemented by DOL regulations at 29 CFR part 3, *Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States*. The Contractor is prohibited from inducing, by any means, any person employed in the construction, completion or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

19. CONTRACT WORK HOURS & SAFETY STANDARDS ACT - CONSTRUCTION CONTRACTS

- A. Applicability. Construction contracts over \$100,000.
- B. Contract Work Hours and Safety Standards.
 - 1) For all construction contracts in excess of \$100,000 that involve the employment of mechanics or laborers, the Contractor shall comply with the *Contract Work Hours and Safety Standards Act*, 40 USC §§ 3701-3708, as supplemented by the DOL regulations at 29 CFR part 5. Under 40 USC § 3702 of the Act, the Contractor shall compute the wages of every mechanic and laborer, including watchmen and guards, on the basis of a standard work week of forty (40) hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half (1-1/2) times the basic rate of pay for all hours worked in excess of forty (40) hours in the work week. The requirements of 40 USC § 3704 are applicable to construction work and provide that no laborer or mechanic be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchase of supplies or materials or

articles ordinarily available on the open market, or to contracts for transportation or transmission of intelligence.

- 2) In the event of any violation of the clause set forth herein, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, the Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of this clause in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by this clause.
- 3) STA or the FTA shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the *Contract Work Hours and Safety Standards Act*, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in this section.
- 4) Contractor or subcontractor shall insert in any subcontracts the clauses set forth in this Section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this Section.

20. CONTRACT WORK HOURS & SAFETY STANDARDS ACT – NON-CONSTRUCTION CONTRACTS

A. Applicability. Non-construction contracts over \$100,000.

- 1) The Contractor shall comply with all federal laws, regulations and requirements providing wage and hour protections for non-construction employees, in accordance with 40 USC § 3702, *Contract Work Hours and Safety Standards Act*, and other relevant parts of that Act, 40 USC § 3701 *et seq.*, and US DOL regulations, *Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act)*, 29 CFR part 5.
- 2) The Contractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three (3) years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.
- 3) Such records maintained under this paragraph shall be made available by the Contractor for inspection, copying or transcription by authorized representatives of the FTA and the Department of Labor, and the Contractor will permit such representatives to interview employees during working hours on the job.
- 4) The contractor shall require the inclusion of the language of this clause within subcontracts of all tiers.

21. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

A. Applicability. All contracts.

B. STA and Contractor acknowledge and agree that, notwithstanding any concurrence by the US Government in or approval of the solicitation or award of the underlying Contract, absent the express written consent by the US Government, the US Government is not a party to this Contract and shall not be subject to any obligations or liabilities to STA, the Contractor or any other party (whether or not a party to this Contract) pertaining to any matter resulting from the underlying Contract.

C. Contractor agrees to include the above clause in each subcontract financed in whole or in part with FTA assistance. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

22. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

- A. Applicability. All contracts.
- B. Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 USC 3801 *et seq.*, and DOT regulations, *Program Fraud Civil Remedies*, 49 CFR 31, apply to its actions pertaining to this Contract. Upon execution of the underlying Contract, Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make or causes to be made, pertaining to the underlying Contract or FTA assisted project for which this Contract work is being performed. In addition to other penalties that may be applicable, Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious or fraudulent claim, statement, submittal or certification, the US Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act (1986) on Contractor to the extent the US Government deems appropriate.
- C. If Contractor makes, or causes to be made, a false, fictitious or fraudulent claim, statement, submittal or certification to the US Government under a contract connected with a project that is financed in whole or in part with FTA assistance under the authority of 49 USC 5307, the Government reserves the right to impose the penalties of 18 USC 1001 and 49 USC 5323(l)(1) on Contractor, to the extent the US Government deems appropriate.
- D. Contractor shall include the above two clauses in each subcontract financed in whole or in part with FTA assistance. The clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

23. TERMINATION

- A. Applicability. All Contracts over \$10,000.
- B. Termination for Convenience.
 - 1) All Contracts Except as Provided Otherwise Herein. STA may terminate this Contract, in whole or in part, at any time by written notice to Contractor when it is in STA's best interest. Contractor shall be paid its costs, including Contract close-out costs, and profit on work performed up to the date and time of termination. Contractor shall promptly submit its termination claim to STA. If Contractor is in possession of any STA property, Contractor shall account for same, and dispose of it as STA directs in writing. If Contractor has possession of STA goods, Contractor shall protect and preserve the goods until surrendered to STA or its agent.
 - 2) Architectural and Engineering Contracts. STA may terminate this Contract, in whole or in part, at any time by written notice to Contractor when it is in STA's best interest. STA shall terminate by delivering to Contractor a notice of termination specifying the nature, extent and effective date of termination. Contractor shall be paid its costs, including Contract close-out costs, and profit on work performed up to the date and time of termination, but shall allow no anticipated profit on unperformed services. Contractor shall promptly submit its termination claim to STA. Upon receipt of the notice, Contractor shall:
 - a) Immediately discontinue all services affected (unless the notice directs otherwise);
 - b) deliver to STA all data, drawings, specifications, reports, estimates, summaries and other information and materials accumulated in performing this Contract, whether completed or in process.
 - c) If Contractor is in possession of any STA property, Contractor shall account for same and dispose of it as STA directs in writing.
- C. Termination for Default, Breach or Cause
 - 1) All Contracts Except as Provided Otherwise Herein. If Contractor does not deliver goods in accordance with the Contract delivery schedule, or if the Contract is for services and Contractor fails to perform in the manner called for in the Contract, or if Contractor fails to comply with any other provisions of the Contract, STA may terminate this Contract for default. Termination shall be effected by serving a notice of termination to Contractor setting forth the manner in which Contractor is in default. Contractor shall

only be paid the Contract price for goods delivered and accepted, or for services performed, in accordance with the manner of performance set forth in the Contract. If this Contract is terminated while Contractor has possession of STA goods, Contractor shall protect and preserve the goods until surrendered to STA or its agent.

If it is later determined by STA that Contractor had an excusable reason for non- performance, such as a strike, fire or flood, events which are not the fault of or are beyond the control of Contractor, STA, after setting up a new delivery or performance schedule, may allow Contractor to continue work, or treat the termination as a termination for convenience.

- 2) Construction Contracts. If Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified, or any extension, or fails to complete the work within this time, or if Contractor fails to comply with any other provisions of this Contract, STA may terminate this Contract for default. STA shall terminate by delivering to Contractor a notice of termination specifying the nature of default. In this event, STA may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances and plant on the work site necessary for completing the work. Contractor and its sureties shall be liable for any damage to STA resulting from Contractor's refusal or failure to complete the work within specified time, whether or not Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by STA in completing the work. Contractor's right to proceed shall not be terminated nor shall Contractor be charged with damages under this clause if:

- a) Delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of Contractor. Examples of such causes include acts of God, acts of STA, acts of another contractor in the performance of a contract with STA, epidemics, quarantine restrictions, strikes, freight embargoes; and
- b) Contractor, within ten (10) days from the beginning of any delay, notifies STA in writing of the causes of delay. If in STA's judgment, delay is excusable, the time for completing the work shall be extended. STA's judgment shall be final and conclusive on the Parties, but subject to appeal under the Disputes clause.

If, after termination of Contractor's right to proceed, it is determined that Contractor was not in default, or that the delay was excusable, the rights and obligations of the Parties will be the same as if termination had been issued for STA's convenience.

- 3) Architectural & Engineering Contracts. STA may terminate this Contract, in whole or in part, because of Contractor's failure to fulfill Contract obligations. STA shall terminate by delivering to Contractor a notice of termination specifying the nature and extent of default and effective date of termination. Upon receipt of such notice, Contractor shall:

- a) Immediately discontinue all services affected (unless the notice directs otherwise);
- b) deliver to STA all data, drawings, specifications, reports, estimates, summaries and other information and materials accumulated in performing this Contract, whether completed or in process.

STA may complete the work by Contact or otherwise and Contractor shall be liable for any additional cost incurred by STA.

If, after termination for failure to fulfill Contract obligations, it is determined that Contractor was not in default, the rights and obligations of the Parties shall be the same as if termination had been issued for STA's convenience.

- D. Opportunity to Cure. STA, in its sole discretion, may, in the case of a termination for breach or default, allow Contractor an appropriately short period of time in which to cure the defect. In such case, the notice of termination shall state the time period in which cure is permitted and other appropriate conditions.

If Contractor fails to remedy to STA's satisfaction the breach or default or any of the terms, covenants or conditions of this Contract, within ten (10) days after receipt by Contractor or written notice from STA setting forth the nature of said breach or default, STA shall have the right to terminate the Contract without any

further obligation to Contractor. Any such termination for default shall not in any way operate to preclude STA from also pursuing all available remedies against Contractor and its sureties for said breach or default.

- E. Waiver of Remedies for any Breach. In the event that STA elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by the recipient shall not limit its remedies for any succeeding breach of that or of any other term, covenant or condition of this Contract.

24. GOVERNMENT-WIDE DEBARMENT AND SUSPENSION

- A. Applicability. Contracts over \$25,000.
- B. The Contractor agrees to the following:
- 1) It will comply with the requirements of 2 CFR part 180, subpart C, as adopted and supplemented by DOT regulations at 2 CFR part 1200, which include the following:
 - a) It will not enter into any arrangement to participate in the development or implementation of the Contract with any third-party that is debarred or suspended except as authorized by:
 - (1) DOT regulations, *Nonprocurement Suspension and Debarment*;
 - (2) 2 CFR part 1200, US OMB, *Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)*;
 - (3) 2 CFR part 180, including any amendments thereto; and
 - (4) Executive Orders Nos. 12549 and 12689, *Debarment and Suspension*, 31 USC § 6101 note.
 - b) It will review the GSA “System for Award Management” (<https://www.sam.gov>), if required by DOT regulations, 2 CFR part 1200.
 - c) It will include, and require each of its third-party contractors to include, a similar provision in each lower tier covered transaction, ensuring that each lower tier third-party:
 - (1) Will comply with Federal debarment and suspension requirements; and
 - (2) Review the System for Award Management (<https://www.sam.gov>), if necessary, to comply with DOT regulations, 2 CFR part 1200; and
 - 2) If Contractor suspends, debars or takes any similar action against a third-party or individual, Contractor will provide immediate written notice to the:
 - a) STA;
 - b) FTA Regional Counsel for the Region in which STA is located or implements the project;
 - c) FTA Project Manager if the project is administered by an FTA Headquarters Office; or
 - d) FTA Chief Counsel.

25. CIVIL RIGHTS REQUIREMENTS

- A. Applicability – All contracts.
- B. STA is an Equal Opportunity Employer. As such, STA agrees to comply with all applicable Federal civil rights laws and implementing regulations. Apart from inconsistent requirements imposed by Federal laws or regulations, STA agrees to comply with the requirements of 49 USC § 5323(h)(3) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications.

Under this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

- 1) Nondiscrimination. In accordance with Federal transit law at 49 USC § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

- 2) Race, Color, Religion, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 USC § 2000e *et seq.*, and Federal transit laws at 49 USC § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of US DOL regulations, *Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor*, 41 CFR chapter 60, and Executive Order No. 11246, *Equal Employment Opportunity in Federal Employment*, September 24, 1965, 42 USC § 2000e note, as amended by any later Executive Order that amends or supersedes it, referenced in 42 USC § 2000e note. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, or sex (including sexual orientation and gender identity). Such action shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
 - 3) Age. In accordance with the Age Discrimination in Employment Act, 29 USC §§ 621-634, US Equal Employment Opportunity Commission (US EEOC) regulations, *Age Discrimination in Employment Act*, 29 CFR part 1625, the Age Discrimination Act of 1975, as amended, 42 USC § 6101 *et seq.*, US Health and Human Services regulations, *Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance*, 45 CFR part 90, and Federal transit law at 49 USC § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
 - 4) Disabilities. In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 USC § 794, the Americans with Disabilities Act of 1990, as amended, 42 USC § 12101 *et seq.*, the Architectural Barriers Act of 1968, as amended, 42 USC § 4151 *et seq.*, and Federal transit law at 49 USC § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
- C. Equal Employment Opportunity Requirements for Construction Activities. In addition to the foregoing, when undertaking “construction” as recognized by the DOL, the Contractor agrees to comply, and assures the compliance of each subcontractor, with:
- 1) DOL regulations, *Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor*, 41 CFR chapter 60; and
 - 2) Executive Order No. 11246, *Equal Employment Opportunity*, as amended by Executive Order Nos. 11375 and 13672, 42 USC § 2000e note; and
 - 3) Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)
 - a) The Contractor's attention is called to the “Equal Opportunity Clause” and the “Standard Federal Equal Employment Specifications” set forth herein.
 - b) The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goal for Minority Participation Each Trade	Goal for Female Participation Each Trade
2.8%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive Order and the regulations in 41 CFR part 60-4. Compliance with the goals will be measured against the total work hours performed.

- c) The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
- d) As used in this notice, and in the contract resulting from this solicitation, the “covered area” is Spokane County, City of Spokane, State of Washington.

26. BREACHES AND DISPUTE RESOLUTION

- A. Applicability – All contracts exceeding the SAT.
- B. Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by STA’s Contract Compliance Specialist. This decision shall be final and conclusive, unless within ten (10) days from the date of receipt of its copy, Contractor mails or otherwise furnishes a written appeal to STA’s CEO. In connection with such appeal, Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of STA’s CEO shall be binding upon Contractor and Contractor shall abide by the decision. FTA has a vested interest in the settlement of any violation of Federal law including the False Claims Act, 31 USC § 3729.
- C. Performance During Dispute. Unless otherwise directed in writing by STA, Contractor shall continue performance under this Contract while matters in dispute are being resolved.
- D. Claims for Damages. Should either Party suffer injury or damage to person or property because of any act or omission of the other Party or of any of its employees, agents or others for whose acts it is legally liable, a claim for damages therefore shall be made in writing to such other Party within ten (10) days after the first observance of such injury or damage.
- E. Remedies. Unless this Contract provides otherwise, all claims, counterclaims, disputes and other matters in question between STA and the Contractor arising out of or relating to this Contract or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State of Washington.
- F. Rights and Remedies. Duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by STA or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

27. PATENT AND DATA RIGHTS

- A. Applicability. Contracts involving experimental, developmental, or research work.
- B. Patent Rights.
 - 1) General. STA and the Contractor agree:

- a) Depending on the nature of the project, the Federal Government may acquire patent rights when STA or Contractor produces a patented or patentable invention, improvement or discovery.
 - b) The Federal Government's rights arise when the patent or patentable information is conceived under the project or reduced to practice under the project.
 - c) When a patent is issued or patented information becomes available, the Contractor agrees to:
 - (1) Notify STA immediately, and
 - (2) Provide STA a detailed report satisfactory to FTA.
- 2) Federal Rights. The Contractor agrees that:
- a) Its rights and responsibilities, and the rights and responsibilities of each subcontractor, in that federally funded invention, improvement or discovery will be determined as provided by applicable Federal laws, regulations and guidance, including any waiver thereof; and
 - b) Unless the Federal Government determines otherwise in writing, irrespective of the Contractor's status or the status of any subcontractor as a large business, a small business, a State government, a State instrumentality, a local government, an Indian tribe, a nonprofit organization, an institution of higher education or an individual, the Contractor agrees to transmit the Federal Government's patent rights to FTA as specified in:
 - (1) 35 USC § 200 *et seq.*; and
 - (2) US Department of Commerce regulations, *Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements*, 37 CFR part 401.
- 3) License Fees and Royalties. As permitted by 2 CFR 200, Appendix II (F):
- a) License fees and royalties for patents, patent applications and inventions derived from the project are program income; and
 - b) The Contractor has no obligation to the Federal Government with respect to those license fees or royalties; except:
 - (1) For compliance with 35 USC § 200 *et seq.*, which applies to patent rights developed under a federally funded research-type projects; and
 - (2) As FTA determines otherwise in writing.
- C. Rights in Data and Copyrights.
- 1) Definition of "Subject Data" means recorded information:
 - a) Copyright. Whether or not copyrighted; and
 - b) Delivery. That is delivered or specified to be delivered under the Contract.
 - 2) Examples of Subject Data include, but are not limited to:
 - a) Computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information; but
 - b) Do not include financial reports, cost analyses or other similar information used for project administration.
 - 3) General Federal Restrictions. The following restrictions apply to all Subject Data first produced in the performance of STA's project supported by the Contract:
 - a) Prohibitions. The Contractor may not:
 - (1) Publish or reproduce any Subject Data in whole or in part, or in any manner or form; or
 - (2) Permit others to do so; but

- b) Exceptions. The prohibitions of Rights in Data and Copyrights do not apply to:
 - (1) Publications or reproductions for STA’s own internal use;
 - (2) An institution of higher learning;
 - (3) The portion of Subject Data that the Federal Government has previously released or approved for release to the public; or
 - (4) The portion of data that has the Federal Government’s prior written consent for release.
- 4) Federal Rights in Data and Copyrights. The Contractor agrees that:
 - a) License Rights. The Contractor must provide a license to its Subject Data to the Federal Government, which license is royalty-free, non-exclusive and irrevocable.
 - b) Uses. The Federal Government’s license must permit the Federal Government to take the following actions provided those actions are taken for Federal Government purposes:
 - (1) Reproduce the Subject Data;
 - (2) Publish the Subject Data;
 - (3) Otherwise use the Subject Data; and
 - (4) Permit other entities or individuals to use the Subject Data.
- 5) Special Federal Rights in Data for Research, Development, Demonstration, Deployment, and Special Studies Projects. In general, FTA’s purpose in providing Federal funds for a research, development, demonstration, deployment or special studies Project is to increase transportation knowledge, rather than limit the benefits of the project to STA and its third-party participants. Therefore, the Contractor agrees that:
 - a) Publicly Available Report. When the project is completed, it must provide a project report that FTA may publish or make available for publication on the Internet; and
 - b) Other Reports. It must provide other reports pertaining to the project that FTA may request.
 - c) Availability of Subject Data. FTA may make available to any FTA recipient or any of its third-party participants at any tier of the project, either FTA’s copyright license to the Subject Data or a copy of the Subject Data, except as the Federal Government determines otherwise in writing.
 - d) Identification of Information. It must identify clearly any specific confidential, privileged or proprietary information submitted to FTA.
 - e) Incomplete Project. If the project is not completed for any reason whatsoever, all data developed under the project becomes Subject Data and must be delivered as the Federal Government may direct; but
 - f) Exception. Rights in Data and Copyrights Section 27.C does not apply to an adaptation of automatic data processing equipment or program that is both:
 - (1) For STA’s use, and
 - (2) Acquired with FTA capital program funding.
- 6) License Fees and Royalties. As permitted by 49 CFR parts 18 and 19:
 - a) License fees and royalties for copyrighted material or trademarks derived from project are program income; and
 - b) The Contractor has no obligation to the Federal Government with respect to those license fees or royalties, except:
 - (1) For compliance with 35 USC § 200 *et seq.*, which applies to patent rights developed under a federally funded research-type project; and
 - (2) As FTA determines otherwise in writing.

- 7) Hold Harmless. Upon request by the Federal Government, the Contractor agrees that:
- a) Violation by Contractor.
 - (1) If it willfully or intentionally violates any proprietary rights, copyrights or right of privacy, and
 - (2) Its violation occurs from any of the following uses of Project data: publication, translation, reproduction, delivery, use or disposition, then
 - (3) It will indemnify, save and hold harmless against any liability, including costs and expenses of:
 - (a) The Federal Government’s officers acting within the scope of their official duties;
 - (b) The Federal Government’s employees acting within the scope of their official duties; and
 - (c) Federal Government’s agents acting within the scope of their official duties; but
 - (4) Exceptions. The Contractor will not be required to indemnify the Federal Government for any liability described in Rights in Data and Copyrights if:
 - (a) Violation by Federal Officers, Employees or Agents. The violation is caused by the wrongful acts of Federal employees or agents; or
 - (b) State law. If indemnification is prohibited or limited by applicable State law.
- 8) Restrictions on Access to Patent Rights. Nothing in this Rights in Data and Copyrights section pertaining to rights in data either:
- a) Implies a license to the Federal Government under any patent; or
 - b) May be construed to affect the scope of any license or other right otherwise granted to the Federal Government under any patent.
- 9) Data Developed Without Federal Funding or Support. The Contractor understands and agrees that in certain circumstances it may need to provide data developed without any Federal funding or support to FTA. Nevertheless:
- a) Protections. Rights in Data and Copyrights Sections 27.C.1) through 27.C.4) generally do not apply to data developed without Federal funding, even though that data may have been used in connection with the project; and
 - b) Identification of Information. The Contractor understands and agrees that the Federal Government will not be able to protect data developed without Federal funding from unauthorized disclosure unless that data is clearly marked “Proprietary” or “Confidential”.
- 10) Requirements to Release Data. The Contractor understands and agrees that the Federal Government may be required to release project data and information STA submits to the Federal Government as required by:
- a) The Freedom of Information Act, 5 USC § 552;
 - b) Another applicable Federal law requiring access to project records;
 - c) DOT regulations, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, specifically 2 CFR § 200.211 or
 - d) Other applicable Federal regulations and guidance pertaining to access to project records.

28. TRANSIT EMPLOYEE PROTECTIVE PROVISIONS

- A. Applicability. All Contracts.
- B. Public Transportation Employee Protective Arrangements. The Contractor agrees that 49 USC § 5333(b) requires employee protective arrangements to be in place as a condition of award of FTA assistance made available or appropriated for FTA programs involving public transportation operations. DOL recognizes the following categories of arrangements:

- 1) DOL Certification. When the Contract involves public transportation operations and is financed with funding made available or appropriated for 49 USC §§ 5307, 5309, 5312, 5337 or 5339, as amended by MAP-21, or former 49 USC §§ 5308, 5309, 5312 or other provisions of law as required by the Federal Government, DOL must provide a Certification of employee protective arrangements before FTA may provide financial assistance for the Contract. Therefore, the Contractor understands and agrees, and assures that Contractor, and any subcontractors, providing public transportation operations will agree, that:
 - a) It must carry out the Contract as provided in its DOL Certification, which contains the terms and conditions that DOL has determined to be fair and equitable to protect the interests of any employees affected by the Contract;
 - b) It must comply with 49 USC § 5333(b), and any future amendments thereto;
 - c) It will follow the DOL guidelines, *Guidelines, Section 5333(b), Federal Transit Law*, 29 CFR part 215, except as DOL determines otherwise in writing;
 - d) It must comply with the terms and conditions of the DOL certification of public transportation employee protective arrangements for the project, which certification is dated as identified on the Contract, including:
 - (1) Alternative comparable arrangements DOL has specified for the project;
 - (2) Any revisions DOL has specified for the project; or
 - (3) Both;
 - e) It must comply with the following documents and provisions incorporated by reference in and made part of the Contract for the project:
 - (1) The DOL certification of public transportation employee protective arrangements for the project, which certification is dated as identified on the Contract;
 - (2) The documents cited in that DOL certification for the project;
 - (3) Any alternative comparable arrangements that DOL has specified for the project; and
 - (4) Any revisions that DOL has specified for the project.
- 2) Special Warranty. When the project involves public transportation operations, and is financed with funding made available or appropriated for 49 USC § 5311, as amended by MAP-21, for former 49 USC § 5311 in effect in FY 2012, or a previous fiscal year, or for section 3038 of TEA-21, as amended by section 3039 of SAFETEA-LU, DOL will provide a Special Warranty for those projects, including projects under the Tribal Transit Program. Therefore, the Contractor understands and agrees, and assures that, it and any subcontractors, providing public transportation operations will agree, that:
 - a) It must comply with Federal transit laws, specifically 49 USC § 5333(b);
 - b) Follow the DOL guidelines, *Guidelines, Section 5333(b), Federal Transit Law*, 29 CFR part 215, except as DOL determines otherwise in writing;
 - c) It will comply with the DOL Special Warranty for its project that is most current on the date when it executed the Contract, and documents cited therein, including:
 - (1) Any alternative comparable arrangements DOL has specified for the project;
 - (2) Any revisions DOL has specified for the project; or
 - (3) Both;
 - d) It will comply with the following documents and provisions incorporated by reference in and made part of the Contract:
 - (1) The DOL Special Warranty for its project;
 - (2) Documents cited in that Special Warranty;

- (3) Alternative comparable arrangements DOL specifies for the project; and
 - (4) Any revisions that DOL has specified for the project.
- 3) Special Arrangements for 49 USC § 5310 Projects. The Contractor understands and agrees, and assures that any subcontractors providing public transportation operations will agree, that although pursuant to 49 USC § 5310, and former 49 USC §§ 5310 or 5317, FTA has determined that it was not “necessary or appropriate” to apply the conditions of 49 USC § 5333(b) to subrecipients participating in the program to provide public transportation for seniors (elderly individuals) and individuals with disabilities, FTA reserves the right to make the following exceptions:
- a) FTA will make case-by-case determinations of the applicability of 49 USC § 5333(b) for all transfers of funding authorized under title 23, United States Code (flex funds); and
 - b) FTA reserves the right to make other exceptions as it deems appropriate.

29. DISADVANTAGED BUSINESS ENTERPRISES (DBE)

- A. Applicability. All contracts.
- B. This Contract is subject to the requirements of Title 49, CFR part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The national goal for participation of Disadvantaged Business Enterprises (DBE) is ten percent (10%). STA’s overall goal for DBE participation may be found at <https://www.spokanetransit.com/about-sta/disadvantaged-business-enterprise-program>.
- C. The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of this Contract. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as STA deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).
- D. If a separate contract goal has been established, Contractor is required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53.
- E. If no separate Contract goal has been established, the successful Contractor will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.
- F. The Contractor is required to pay its subcontractors performing work related to this Contract for satisfactory performance of that work no later than thirty (30) days after the Contractor’s receipt of payment for that work from STA. In addition, the Contractor may not hold retainage from its subcontractors.
- G. The Contractor must promptly notify STA whenever a DBE subcontractor performing work related to this Contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The Contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of STA.

30. PROMPT PAYMENT

- A. Applicability. All contracts.
- B. The Contractor agrees to pay each subcontractor under this Contract for satisfactory performance of its contract no later than thirty (30) days from the receipt of each payment the Contractor receives from STA. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of STA. This clause applies to both DBE and non-DBE subcontracts.

31. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

- A. Applicability. All contracts.

- B. The provisions herein include, in part, certain Standard Terms & Conditions required by DOT, whether or not expressly stated in these contract provisions. All DOT-required contractual provisions, as stated in FTA Circular 4220.1F and the Master Agreement, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any request that would cause STA to be in violation of FTA terms and conditions.

32. DRUG & ALCOHOL ABUSE AND TESTING

- A. Applicability. Operational service contracts performing safety-sensitive functions as defined under 49 CFR 655.4.
- B. The Contractor agrees to comply with the following Federal substance abuse regulations:
- 1) Drug-Free Workplace. DOT regulations, *Drug-Free Workplace Requirements (Grants)*, 49 CFR part 32, that implements the Drug-Free Workplace Act of 1988 as amended, 41 USC §§ 8103 *et seq.*; and
 - 2) 49 CFR part 655, Alcohol Misuse and Prohibited Drug Use in Transit Operations. FTA Regulations, *Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations*, 49 USC 5331, as amended by MAP-21, 49 CFR part 40, 49 USC chapter 53, 49 CFR part 655, to the extent applicable.

33. OTHER FEDERAL REQUIREMENTS:

- A. Full and Open Competition. In accordance with 49 USC § 5325(h) all procurement transactions shall be conducted in a manner that provides full and open competition.
- B. Prohibition Against Exclusionary or Discriminatory Specifications. Apart from inconsistent requirements imposed by Federal statute or regulations, the Contractor shall comply with the requirements of 49 USC 5323(h)(2) by refraining from using any FTA assistance to support procurements using exclusionary or discriminatory specifications.
- C. Conformance with ITS National Architecture. Contractor shall conform, to the extent applicable, to the National Intelligent Transportation Standards architecture as required by SAFETEA-LU Section 5307(c), 23 USC Section 512 note and follow the provisions of FTA Notice, *FTA National Architecture Policy on Transit Projects*, 66 Fed. Reg.1455 *et seq.*, January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.
- D. Access Requirements for Persons with Disabilities. Contractor shall comply with 49 USC 5301(d), stating Federal policy that the elderly and persons with disabilities have the same rights as other persons to use mass transportation services and facilities and that special efforts shall be made in planning and designing those services and facilities to implement that policy. Contractor shall also comply with all applicable requirements of Sec. 504 of the Rehabilitation Act (1973), as amended, 29 USC 794, which prohibits discrimination on the basis of handicaps, and the Americans with Disabilities Act of 1990 (ADA), as amended, 42 USC 12101 *et seq.*, which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments thereto.
- E. Notification of Federal Participation. To the extent required by law, in the announcement of any third-party contract award for goods and services (including construction services) having an aggregate value of \$500,000 or more, Contractor shall specify the amount of Federal assistance to be used in financing that acquisition of goods and services and express that amount of Federal assistance as a percentage of the total cost of the third-party contract.
- F. Interest of Members or Delegates to Congress. No members of, or delegates to, the US Congress shall be admitted to any share or part of this Contract nor to any benefit arising therefrom.
- G. Ineligible Contractors and Subcontractors. Any name appearing upon the Comptroller General's list of ineligible contractors for federally assisted contracts shall be ineligible to act as a subcontractor for Contractor pursuant to this Contract. If Contractor is on the Comptroller General's list of ineligible contractors for federally financed or assisted construction, STA shall cancel, terminate or suspend this Contract.
- H. Real Property. Any contract entered into shall contain the following provisions:

- 1) Contractor shall at all times comply with all applicable statutes and DOT regulations, policies, procedures and directives governing the acquisition, use and disposal of real property, including, but not limited to, 49 CFR 18.31-18.34, 49 CFR 19.30-19.37, 49 CFR part 24, 49 CFR 5326 as amended by MAP-21, 49 CFR part 18 or 19, 49 USC 5334, applicable FTA Circular 5010, and the Master Agreement between STA and FTA, as they may be amended or promulgated during the term of this Contract.
 - 2) Contractor's failure to so comply shall constitute a material breach of this Contract.
- I. Environmental Justice. Except as the Federal Government determines otherwise in writing, the Contractor agrees to promote environmental justice by following:
- 1) Executive Order No. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, February 11, 1994, 42 USC § 4321 note, as well as facilitating compliance with that Executive Order; and
 - 2) DOT Order 5610.2, *Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 62 Fed. Reg. 18377, April 15, 1997; and
 - 3) The most recent and applicable edition of FTA Circular 4703.1, *Environmental Justice Policy Guidance for Federal Transit Administration Recipients*, August 15, 2012, to the extent consistent with applicable Federal laws, regulations and guidance.
- J. Environmental Protections. Compliance is required with any applicable Federal laws imposing environmental and resource conservation requirements for the project. Some, but not all, of the major Federal laws that may affect the project include:
- 1) the National Environmental Policy Act of 1969;
 - 2) the Clean Air Act;
 - 3) the Resource Conservation and Recovery Act;
 - 4) the comprehensive Environmental Response, Compensation and Liability Act; and
 - 5) environmental provisions with Title 23 USC, and 49 USC chapter 53.
- The EPA, FHWA and other federal agencies may issue other federal regulations and directives that may affect the project. Compliance is required with any applicable Federal laws and regulations in effect now or that become effective in the future.
- K. Geographic Information and Related Spatial Data. Any Contract activities involving spatial data or geographic information systems activities financed with Federal assistance are required to be consistent with the National Spatial Data Infrastructure promulgated by the Federal Geographic Data Committee, except to the extent that FTA determines otherwise in writing.
- L. Geographic Preference. All project activities must be advertised without geographic preference, (except in A/E under certain circumstances, preference for hiring veterans on transit construction projects and geographic-based hiring preferences as proposes to be amended in 2 CFR part 1201).
- M. Organizational Conflicts of Interest. The Contractor agrees that it will not enter into a procurement that involves a real or apparent organizational conflict of interest described as follows:
- 1) When It Occurs. An organizational conflict of interest occurs when the project work, without appropriate restrictions on certain future activities, results in an unfair competitive advantage:
 - a) To that third-party or another third-party performing the project work, and
 - b) That impairs that third-party's objectivity in performing the project work, or
 - c) An organizational conflict of interest may involve other situations resulting in fundamentally unfair competitive conditions.
 - 2) Disclosure Requirements. Consistent with FTA policies, the Contractor must disclose to STA, and each of its subcontractors must disclose to the Contractor:
 - a) Any instances of organizational conflict of interest, or

- b) Violations of federal criminal law, involving fraud, bribery or gratuity violations potentially affecting the federal award.
 - 3) Failure to Disclose. Failure to make required disclosures can result in remedies for noncompliance, including debarment or suspension.
- N. Veterans Preference. As provided by 49 USC § 5325(k), to the extent practicable, the Contractor agrees and assures that each of its subcontractors:
- 1) Will give a hiring preference to veterans, as defined in 5 USC § 2108, who have the skills and abilities required to perform construction work required under a third-party contract in connection with a capital project supported with federal assistance appropriated or made available for 49 USC chapter 53; and
 - 2) Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.
- O. Safe Operation of Motor Vehicles.
- 1) Seat Belt Use. The Contractor agrees to implement Executive Order No. 13043, *Increasing Seat Belt Use in the United States*, April 16, 1997, 23 USC § 402 note, (62 Fed. Reg. 19217), by:
 - a) Adopting and promoting on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles: and
 - b) Including a “Seat Belt Use” provision in each third-party agreement related to the Contract.
 - 2) Distracted Driving, Including Text Messaging While Driving. The Contractor agrees to comply with:
 - a) Executive Order No. 13513, *Federal Leadership on Reducing Text Messaging While Driving*, October 1, 2009, 23 USC § 402 note, (74 Fed. Reg. 51225);
 - b) DOT Order 3902.10, *Text Messaging While Driving*, December 30, 2009: and
 - c) The following DOT Special Provision pertaining to Distracted Driving:
 - (1) Safety. The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle STA owns, leases or rents, or a privately-owned vehicle when on official business in connection with the Contract, or when performing any work for or on behalf of the Contract.
 - (2) Contractor Size. The Contractor agrees to conduct workplace safety initiatives in a manner commensurate with its size, such as establishing new rules and programs to prohibit text messaging while driving, re-evaluating the existing programs to prohibit text messaging while driving, and providing education, awareness and other outreach to employees about the safety risks associated with texting while driving.
 - (3) Extension of Provision. The Contractor agrees to include this Section in all third-party agreements, and encourage any third-party to comply with this section, and include this Section 33.O in each third-party agreement at each tier supported with federal assistance.
- P. Notification of Dispute, Breach, Default and Litigation. Contractor, its subconsultants and subcontractors, of any tier, shall promptly notify (through the Contractor) STA in writing of any current or prospective legal matter that may impact any contract that is considered a “covered transaction” in accordance with 2 CFR §§ 180.220 and 1200.220. The Contractor, its subconsultants and subcontractors, shall include the requirements of this section in all subcontracts with third parties at every tier.

END OF SECTION 007200.3

SECTION 007300 - Supplemental Conditions

1. **OPTIONAL PRE-BID MEETING – Bidders are encouraged, but not required, to attend the pre-bid meeting.**
2. FEDERAL ASSISTANCE - This Project is funded, in part, by Federal Assistance, WA-2020-009. All applicable Federal Terms & Conditions, laws, rules and regulations shall apply.
3. This project is funded with Federal and State funding. As such, additional requirements for accounting, reporting and invoicing is required. A sample payment application is provided in Section 7300.1. The successful bidder will work with the Owner to prepare a final payment application acceptable to the Owner and FTA.
4. The contractor must submit “ink signed” original certified payroll forms which meet Washington State law and federal Davis-Bacon Act requirements prior to approval of monthly payment applications. Copies of signed payroll forms will not be accepted. Further, the contractor will be responsible for ensuring all direct wage rates and fringe rates are clearly indicated for each employee on all weekly certified payroll forms. Washington State certified payroll submittals do not waive the requirement for weekly certified payroll submittals to STA.
5. The project is subject to the requirements of the Federal Transit Administration “Buy America” requirements. It is recommended that bidders become familiar with the FTA “Buy America” requirements which are different than FHWA “Buy America” requirements and the Federal “Buy American” requirements.
6. The contractor will be required to provide a certified arborist to coordinate and observe all street tree removals, protections, and plantings as required by the City of Spokane.
7. Project is subject to environmental mitigations. Compliance with all National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) mitigations will be required.
8. The Contractor shall develop and submit a Construction Quality Control Plan (CQCP) for the project prior to starting any on-site construction work. The CQCP submittal shall be reviewed and approved by STA prior to the start of construction. The scope and level of detail of the CQCP shall be commensurate with the scope of the project and shall meet the overall requirements of the CCL Project Construction Quality Management Plan (CQMP) dated April 6, 2020 and the intent of FTA’s Quality Management System Guidelines. As a minimum, the CQCP shall incorporate checklists and forms to be used during key construction activities, as well as shall address all other relevant aspects of quality control (QC) required for ensuring a successful construction project as identified in the CCL Project Construction Quality Management Plan (CQMP). The CQCP shall also identify personnel responsible for the Contractor’s QC efforts, including naming a qualified individual to serve as the Quality Control Supervisor (QCS), who will be the Contractor’s key individual responsible for implementing the CQCP. The QCS will also be responsible for coordinating with STA’s Construction Management Team (CMT) on required Quality Assurance (QA) inspections and with STA’s construction materials testing laboratory on scheduling required QA/QC tests, construction acceptance tests, and any building code-required special inspections. To provide a common proposal for all bidders, the Contracting Agency has entered an allowance

amount to the proposal to become part of the Contractor's total bid. This bid item will be paid to the contractor for actual labor and materials used to prepare the CQCP and implementation by the QCS. Pay applications will require documentation for labor and materials used

9. The Contractor shall submit a Safety Plan for the project. The Plan shall be reviewed by STA and comments provided to the Contractor prior to the start of construction. The scope of the Plan shall be commensurate with the scope of the project. The Safety Plan will NOT be paid for separately. It shall be incidental to the construction contract.

END OF SECTION 007300



Central City Line Construction Quality Management Plan

April 6, 2020

Revision History

Revision No.	Date	Prepared By:	Approved By:	Date
FTA Readiness Review	03/15/19	Jacobs Engineering	STA	03/15/19
Revision 1	04/06/20	Hill International	STA	04/07/20

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List of Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ACIL	American Council of Independent Laboratories
ALZA	American Association of Laboratory Accreditation
ASTM	ASTM International -- formerly, American Society for Testing and Materials
ASQ	American Society for Quality
AWS	American Welding Society
BRT	Bus Rapid Transit
CA	Construction Administration; also, Corrective Action
CAR	Corrective Action Report
CCL	Central City Line
CCRL	Cement and Concrete Reference Laboratory
CM/T	Construction Management/Construction Management Team
COS	City of Spokane
CQCP	Construction Quality Control Plan
CQMP	Construction Quality Management Plan (this document)
COR	Change Order Request
DSDC	Design Support during Construction
EIT	Engineer-in-Training
EOR	Engineer of Record
FTA	Federal Transit Administration
HPT	High Performance Transit
ILAC	International Laboratory Accreditation Cooperation
IBC	International Building Code
ISO	International Organization for Standardization
ITP	Inspection and Test Plan
LAN	Local Area Network
M&TE	Measurement & Test Equipment
NCR	Nonconformance Report
NICET	National Institute for Certification in Engineering Technologies
NIST	National Institute of Standards and Technology – formerly, National Bureau of Standards
NTP	Notice-To-Proceed
NVLAP	National Voluntary Laboratory Accreditation Program
PE	Professional Engineer (Registered or Licensed Professional Engineer)
PMP	Project Management Plan
PM	Project Manager
QA	Quality Assurance
QC	Quality Control
QMS	Quality Management System
RLS	Registered Land Surveyor
RFI	Request for Information
SOW	State of Washington
SSGA	Small Starts Grant Agreement
STA	Spokane Transit Authority
TSP	Traffic Signal Priority
WSDOT	Washington State Department of Transportation

Part I - Introduction

1.1 Project Description

The Spokane Transit Authority (STA) Central City Line (CCL) is a 5.8-mile long Bus Rapid Transit (BRT) corridor with 33 stations (including paired station locations). The corridor extends from Browne's Addition, a residential subdivision and National Register of Historic Places neighborhood located west of downtown Spokane, through the CBD, then through the Gonzaga University District located just east of downtown, through the Logan neighborhood area, through the Chief Garry Park/East Mission District, and then terminates at Spokane Community College. This route/alignment also provides access to several cultural and recreational sites such as the Centennial Trail, as well as to numerous nearby community parks. The CCL transit corridor is also being referred to as High Performance Transit (HPT) in some STA project-related documentation.

The BRT/HPT vehicles selected for use on the corridor are modern 60-foot, low-floor, electric trolley buses that will basically operate every 7.5 minutes during weekday peak periods, every 10 to 15 minutes during weekday off-peak and evening periods, as well as every 15 minutes on weekends. The project will have a transit signal priority system and will feature various station amenities, such as a shelter structure with seating and wind screens, a real-time bus arrival informational display system, wayfinding signage, on-site ticket vending and fare validator machines, and safety and security lighting and cameras.

The total capital cost of the CCL project is \$72.0 million. STA has received a Section 5309 SSGA from FTA of \$53.43 million, and will also apply other federal, state, and local grant funds totaling \$18.57 million toward the project.

1.2 Project Scope

The scope of the CCL Core Construction Contract includes 28 BRT/HPT stations (three stations are deferred at this time) and several related street improvement projects, including the construction of a new roadway roundabout. The installation of a new traffic signal at one intersection and new pedestrian signals at two additional intersections are also part of the contract's work scope.

1.3 Project Construction Schedule

The project's construction work scope is anticipated to be completed over two construction seasons with BRT/HPT station construction occurring at 13 locations during 2020 and at the remaining 15 locations during calendar year 2021. Likewise, the project-related street/roadway improvements and traffic/pedestrian signal installations are planned for six (6) locations during 2020 and at the three (3) remaining locations in 2021.

1.4 Related Contracts and Coordination

The CCL Contractor is responsible for the construction scope summarized below under the Core Construction Contract of the STA-CCL Project and for coordinating its work with many of the other follow-on contracts/contractors additionally listed below.

1. **Core Construction Contract:** The work scope under this contract includes all site civil construction and concrete work required to construct the basic station platforms, as well as trenching and conduit installation for power and communications, constructing the pedestals for the various station amenities, installation of the communication cabinet, and the platform hand rails; and project-related street improvements, including the construction of a roadway roundabout, and traffic and pedestrian signals installation work at specific street intersections.
2. **HPT Amenity Fabricator:** The scope of work under this contract includes the final design, engineering, and fabrication of the station shelters; light poles and lighting; station markers; benches; and leaning rails and bike racks. These station amenities will be installed by the HPT Amenity Installer.
3. **HPT Amenity Installer:** The scope of work under this contract includes installation of the various station amenities, such as: station shelters, lighting and light poles, bus stop signs, digital signage, security cameras, and routing station power and communications from the control cabinets throughout each station. This contractor will be required to also work closely with STA's Operations and Information Services Department on the later systems integration/commissioning of the all installed vendor components further described below.
4. **Communications Network Provider:** The scope of work under this contract includes routing and installing fiber optic/LAN cables between all stations and connecting through the platform communications cabinet. Coordination with the Core Construction Contractor will be required.
5. **Avista Power Installation:** The local regional power company, Avista, will be routing and connecting new electrical service to all of the stations platforms, including metering. Again, some coordination with the Core Construction Contractor will be required.
6. **System Components Vendors:** Multiple suppliers/vendors will be contracted directly with STA for furnishing, installing and the final systems commissioning assistance of the various required station technology elements such as ticket vending machines, ticket validators and digital signage media players, as well as for the TSP equipment for procured for traffic signals and buses, and the station platform bus arrival beacon system hardware and software.

1.5 STA CCL Project Team

The following firms have been employed by STA to comprise the CCL (Core Construction Contract) Project Team:

- CCL Contractor: Cameron-Reilly
- CA/CM Services Consultant: Hill International, Inc. (Hill)
- Engineer of Record (EOR) for DSDC Services: Jacobs Engineering Group, Inc.
- Independent QA Manager: Hill International, Inc.
- QA/QC Independent Testing Laboratory: Budinger & Associates, Inc.
- QA Independent Surveying Consultant: Coffman Engineers, Inc.

Part II—Requirements of the CQCP

2.1 Summary

This Part of the CQMP provides guidelines for quality control (QC) tasks to be performed by the CCL Contractor, including the types of QC inspections required within the scope of the STA CCL Core Construction Contract. The CCL Contractor will be required to develop and submit a project-specific Construction Quality Control Plan (CQCP) to STA and receive approval of its CQCP prior to starting any actual construction work under the contract. This CQMP document is intended to address the intent of FTA’s 15 QMS Guidelines (listed under “References” below) and its quality program elements as they are appropriate and relevant to the scope of this FTA SSGA construction project. Note that further revisions to this CQMP will be issued, as necessary, to maintain its relevance for the QA/QC needs of the STA CCL project as its construction progresses to project completion and the start of revenue service.

2.2 Quality Policy, Approach and Goals

The STA CMP document (referenced in the next section) states the overall quality policy, approach and goals of STA as they relate to the CCL project. In summary, STA states that its overall quality policy is to plan, design, and construct transit projects with the highest regard for quality as stated in the FTA QMS Guidelines.

The primary goal of this CQMP is to provide a planned and systematic approach in regard to the CCL to assure that all construction-related activities are delivered as specified in the contract documents, and that the expected level of overall quality is achieved. This goal will be accomplished through the development and adherence to a comprehensive and effective CQCP as outlined in the sections of this document that follow.

The CCL Contractor is also required to develop and state its quality program policy and policy goals as part of its approach to providing the QC services detailed in its CQCP.

2.3 References

The following references contain additional background and/or detailed information on the overall QMS (QA/QC) approach that is of relevance to this FTA SSGA funded construction project.

- FTA Quality Management System (QMS) Guidelines, dated October 2019
- STA CCL Project Management Plan (PMP), Draft 3.1, dated 03/20/19
- STA CCL Construction Management Plan (CMP), Version 1, dated 06/20/19 (as updated/amended by Hill and STA following execution of the Hill CA/CM Services Task Order)
- STA CCL Project Specifications and Special Provisions; Conformed Document Set, dated 03/10/20
- STA CCL Project Drawings; Conformed Drawing Set, dated 03/13/20

Note that various applicable design and construction technical standards and references are stated in the STA CCL contract documents, including those for the City of Spokane (COS) and WSDOT.

2.4 QA/QC Management Structure

The STA CCL PMP and CMP (referenced in the above section) include organizational charts showing STA's overall QA structure. The FTA QMS Guidelines allow the Project Sponsor (STA) to use an Independent (or Consultant) Quality Manager for the CCL project due to its definition as a FTA Small Starts project because of its overall cost. The STA Independent QA Manager, while also needing to coordinate with STA's CMT and the CCL Contractor's QC Supervisor, is a direct report to the STA CEO.

For the CCL project, STA has also elected to hire an independent testing laboratory to provide both QA and QC construction materials testing and inspection services, as well materials acceptance testing (plus QA-level testing services if the CCL Contractor employs its own QC testing laboratory), an independent surveying firm to provide QA surveying services, and to have its CMT perform additional QA inspection and related recordkeeping. See section 1.5 above.

The CCL Contractor is required to have a designated QC Supervisor for the project and to develop and implement a CQCP as further described and discussed in the sections below and in the implementation sections of Part III of this document that follow.

2.5 Development of the CQCP

A. CCL Contractor's Responsibility

The CCL Contractor shall be responsible for the development, implementation, and maintenance of a CQCP consistent with the requirements of this document, and which will assure the construction and installation of products/materials and equipment that conform to the applicable requirements of the project's plans, specifications and special provisions. While not all of the requirements stated in this document may be directly applicable for the CCL Core Construction Contract, the CCL Contractor is expected to develop a CQCP that addresses the stated requirements as they are applicable to its specified scope of work.

B. Quality Control Services

QC services include inspections, tests, and related requirements including administration, management, supervision, reports and recordkeeping, use of independent QC testing agencies/laboratories (if desired), and other relevant QC-related services. QC services do not include Quality Assurance (QA) or contract administration or enforcement activities performed by STA or its CMT. QC activities, as described in the project specifications and special provisions, and this CQMP, shall be provided by the CCL Contractor unless specifically stated to be provided by STA or its CMT. The QC services described herein should be considered as a minimum and are not intended to limit the CCL Contractor's QC activities that it may be deemed necessary to achieve full compliance with the contract documents.

C. CQCP Functions

The CQCP shall assure the ongoing maintenance of adequate quality throughout all applicable areas of contract performance, such as: fabrication, testing, handling, packaging, shipping, storage, and on-site construction activities. The CQCP shall describe methods and processes that address the identification, correction, and prevention of deficiencies, discrepancies, and nonconforming work. Documentation shall include procedures, detailed work instructions, checklists, and recordkeeping requirements. Procedures to implement the CQCP shall be

developed, specific responsibilities assigned, and individual job authorities clearly delineated. Procedures shall be established to systematically verify compliance with the requirements of this document and any other requirements of the project's drawings, specifications and special provisions necessary to show conformance to the construction contract.

D. Audits

Audits of the CCL Contractor, subcontractors, and/or suppliers/vendors activities may be performed by STA to verify compliance with the contract drawings, specifications and special provisions, all standards referenced therein, and this CQMP. Audits may be performed on a systematic basis, or as warranted by general project quality trends.

E. Quality Control Supervisor

The CCL Contractor is required to provide a designated Quality Control Supervisor, with previous construction-related QC experience, whose responsibility is to ensure compliance with the CQCP, this CQMP document, and with other quality requirements stated in the project's drawings, specifications and special provisions. This person is to be a direct report to the CCL Contractor's corporate-level management and may be assisted by other QC staff, as warranted by the specific construction activities being undertaken and the overall construction workload.

F. Evidence of Compliance

The CCL Contractor shall provide STA with complete evidence of compliance with the contract drawings, specifications and special provisions for all products, materials and equipment supplied, constructed and/or installed under this contract. Evidence of compliance may consist of certificates of compliance and/or test results from the production facility for raw products, witnessed test results for manufactured products and/or systems (if required), and any other information required by the contract documents, such as the required submittals addressing specified products, materials and/or equipment for review and approval.

2.6 Submittals

A. General Submittal Requirements

Submittals shall be made in accordance with the requirements specified in the construction contract, except as may be additionally modified herein. RFIs, product/material/equipment submittals, and COR/Change Order packages shall be QC-reviewed for compliance with the requirements of the project specifications and special provisions prior to submission to STA or STA's CMT, and/or intended for further review and approval by the EOR as part of their DSDC services.

B. CQCP Submittal and Contents

The CCL Contractor shall submit three signed and dated hard copy originals (or one signed and dated original if transmitted electronically) of the CQCP to STA within 30 calendar days following the issuance of NTP. STA will review the submitted document and provide any comments for the CCL Contractor to further address before resubmission. Once the CQCP is approved, STA will issue a Letter of Acceptance to the CCL Contractor. No work covered by the CCL Core Construction Contract shall begin until STA has reviewed and approved the CCL Contractor's CQCP. The CQCP document shall contain a comprehensive description of the CCL Contractor's QC approach, procedures, and recordkeeping that will be applied throughout

the contract. It shall also include, but shall not be limited to, the following:

- **Organization Chart:** An Organization Chart that exhibits the CCL Contractor's approach to providing QC services, identifies the QC Supervisor's position and shows that this position is outside of the regular project construction staff with clear lines of authority for QC, and reporting directly to the CCL Contractor's corporate management. The QC Supervisor shall be present at the work site at all times necessary to insure the quality of the work in progress. The QC Supervisor is also responsible for coordinating with STA's CMT on the schedule of required QA/QC inspections and acceptance testing. Additional QC personnel may be assigned by the CCL Contractor and designated to perform and document additional QC inspections (and/or testing) of the work, as required. The QC Supervisor, and any other designated QC personnel, shall have the authority to direct the on-site correction of the CCL Contractor's work that is not in compliance with contract requirements.
- **Inspection and Test Plan (ITP):** An Inspection and Test Plan (ITP) that addresses, in detail, the QC inspections and any required tests that will be performed by the CCL Contractor, or its subcontractors or suppliers/vendors, and the related documentation required in order to implement the CQCP, as well as to demonstrate compliance with the construction contract's drawings, specifications and special provisions. The ITP should correlate directly to the construction tasks and activities required by the project's scope (e.g., earthwork, trenching, backfilling and soil compaction, concrete slab placement and equipment/amenity pedestal construction, concrete paving, asphalt paving, traffic and pedestrian signal installation, etc.).
- **Other QC Elements:** Addresses other relevant QC elements such as procurement and purchasing; product/materials/equipment inspections and traceability; document control, recordkeeping and reporting; nonconformance and corrective action; and QC training and auditing, all as are all further discussed in the sections and paragraphs that follow, including in Part III of this document.

C. Proposed QC Personnel

- **QC Supervisor:** Before starting work, the CCL Contractor shall submit the name, qualifications, and experience of the proposed QC Supervisor, who, on approval by STA, shall have full authority to represent and act for the CCL Contractor on all quality-related matters. Ideally, the QC Supervisor should have a minimum of three (3) years of construction-related QC or QA experience, with at least one of those years being in the supervision or management of QC or QA-related services. Relevant certification by ASQ is also highly desirable. At a minimum, the designated QC Supervisor shall have significant prior construction experience at the level of a Project/Site Superintendent or Project Manager on projects with similar construction tasks and activities, and who also had prior ongoing QC responsibilities while serving in these roles.
- **Additional QC Personnel:** Names and resumes with qualifications of any other QC personnel assigned by the CCL Contractor to assist the QC Supervisor must also be submitted to STA, if and when they are assigned.

- **Changes to Assigned/Approved QC Personnel:** The CCL Contractor shall notify STA, in writing, in the event it desires to change the QC Supervisor, or any other QC personnel identified on the Organization Chart, and shall provide the information stated above for STA approval of a new QC Supervisor or other assigned QC personnel. No CCL Contractor QC personnel shall be removed from the project without prior written notice to and approval by STA.

D. Evidence of Contractor Training and Implementation

Before starting work, the CCL Contractor shall implement the requirements of the approved CQCP and instruct, in accordance with the CQCP, the workmen, subcontractors, product and equipment vendors, material suppliers, plus other personnel who will be performing any QC-related tasks and recordkeeping. The CQCP orientation training may include, but shall not be limited to, the following:

- Procedures to identify potential quality problems with work or products/materials, and appropriate directions for solving, reporting and documenting such problems.
- Procedures establishing and maintaining effective QC practices in all areas and during all construction tasks associated with the project.
- Daily work plan "tool box" briefings that include a discussion of work quality.

All relevant training sessions will also need to be documented and maintained as QC records.

E. List of Subcontractors and Suppliers

Prior to procurement of products and materials, the CCL Contractor shall submit a list of subcontractors and suppliers/vendors that shall include references to the products/materials and equipment to be supplied, item numbers, applicable technical specifications and special provisions, any inspection and subcontractor/supplier test requirements, performance data, anticipated test/inspection dates, and other pertinent information, as appropriate.

F. Inspection and Test Plan

The CCL Contractor shall submit an Inspection and Test Plan (ITP) as part of the CQCP as noted above. The ITP shall be developed to address each relevant specification section and shall identify all inspections and tests required by that specification section, the required frequency, the accept/reject criteria, records (such as checklists) required to document compliance, and the procedures or instructions to be used for control of each activity. The CCL Contractor shall also perform other inspections and/or QC testing, as necessary, to verify the quality of the work. The ITP shall be in sufficient detail to allow STA, or its CMT, to determine from the ITP, any and all construction operations to be QA inspected.

G. Index of QC Records

The CCL Contractor shall prepare an Index of all QC records (training logs, materials receiving logs, construction inspection forms/checklists, etc.) that will be used and maintained during the progress of the work. This Index shall also be included as an attachment to the CQCP along with samples of the respective QC forms and records.

H. QC Reports and Forms

- **QC Daily Records and Weekly Reports:** The CCL Contractor shall maintain all QC-related records and forms on daily basis. Relevant QC records include, but are not limited to,

product/material/equipment receiving inspections, inspections/tests conducted and the results of inspections and/or tests of work accomplished, the nature of any defects found, causes for rejection, and the proposed remedial action and corrective actions taken. Weekly reports summarizing the CCL Contractor's daily QC activities shall be submitted to STA's CMT. QC records, reports, and forms may be maintained and submitted by the CCL Contractor in an electronic format acceptable to STA.

- **Project Close-out Certification:** Prior to final acceptance and Contract Close-out, the CCL Contractor shall submit a certification to STA, signed by the Contractor's Quality Control Supervisor, that all work has been inspected (and/or tested), and that all work, except as specifically noted, is complete and in compliance with the contract drawings, and technical specifications and special provisions. A certification shall also be provided from the CCL Contractor's QC testing laboratory, if one was employed under this contract, confirming that all requested tests have been completed and that all relevant test reports have been submitted.

I. Letter of Authority

A Letter of Authority shall be provided to the CCL Contractor's QC Supervisor outlining his duties and responsibilities and signed by a responsible officer of the firm. This letter shall include the authority to halt construction, reject materials, and to direct removal and replacement of work not in compliance with the contract. This authority shall not be subject to approval of the CCL Contractor's Project Manager, Project/Site Superintendent or other assigned construction site personnel. A copy of the Letter of Authority should also be included as an attachment in the CCL Contractor's CQCP.

2.7 Document Control

A. Written Procedures and QC Forms

All construction activities necessary to meet the reference standards specified in the technical specifications and special provisions shall be designated by written procedures in the CQCP. Example copies of forms, checklists and other documentation to be used for QC-related inspections, any required tests, and weekly QC reporting to the STA CMT shall also be included as attachments to the CQCP.

B. Transmittal Log

The document control procedures shall provide for the maintenance of a Transmittal Log, plus other logs and controls, as necessary, for tracking and recording the transmittal of RFIs, product/material/equipment submittals, COR/change order packages, etc., as well as for the receipt and distribution of all received documents, especially contract drawing and technical specification revisions, to assure that all received documents are distributed in a timely manner within the CCL Contractor's designated staff and contain the necessary technical information.

C. Document Availability

All records and documents which are quality-related shall be maintained current by the CCL QC Supervisor, and shall be made available to STA for review and/or audit purposes upon request. Records shall be protected from deterioration, damage, or loss, including all electronic/digital records.

2.8 Identification and Control of Project Products/Materials/Equipment

A. Control Procedures

Control procedures shall be established to ensure that all project products/materials and equipment procurements that have been accepted through shipping and receiving inspections are properly used and installed. Identification and traceability shall be provided throughout all inspections, test activities, and records. For stored items, provisions shall be made for the control of procured products/materials/equipment identification consistent with the expected duration and type of storage.

B. Receiving Inspection Log for Contractor-Furnished Products/Materials/Equipment

The CCL Contractor shall develop and maintain a Receiving Inspection Log for contractor-furnished products/materials and equipment, which shall contain the following information, as a minimum:

- Purchase order number
- Item number
- Supplier name
- Quantity
- Item description
- Reference to applicable contract requirements
- Date received
- Heat number, serial number, or other I.D., as applicable
- Verification of receipt of all required supporting documentation
- QC acceptance sign-off and date
- Nonconformance number, if applicable

C. Receiving Inspection Log for Owner-Furnished Products/Materials/Equipment

The CCL Contractor shall also develop and maintain a separate Receiving Inspection Log for any owner-furnished products/materials/equipment.

2.9 Inspections and Tests

A. Independent Materials Testing Laboratory

STA has employed the services of an accredited independent materials testing laboratory to perform QA/QC materials testing and acceptance testing of construction materials incorporated into the work. The CCL Contractor may also elect to employ its own independent QC materials testing laboratory, but if one is to be used, it must first be accepted by STA. The names of proposed QC materials testing laboratories, if any, shall be submitted to STA for acceptance within 14 calendar days of NTP.

B. Testing Laboratory Accreditation

Both STA's independent testing laboratory and the CCL Contractor's QC testing laboratory, (if one is used), shall be accredited per the standards of the nationally recognized association or

agency that promulgates the standards referenced in the project specifications and special provisions for the defined scope of work. The specific testing laboratory requirements include:

1. Asphalt, concrete, soils, structural steel testing and inspection, and Special Inspection services shall be supervised by a Professional Engineer (PE) registered in the State of Washington (SOW) and shall conform to the requirements of ASTM E329-18.
2. The laboratory facility, services provided, and appropriate personnel shall be accredited by AASHTO, AL2A, or NVLAP, and the facility should also participate in the CCRL program as administered by ASTM. It's also recommended, but not mandatory, that independent testing laboratories employed for the project also be current members of ACIL, and/or be accredited by ILAC under an appropriate ISO 9000 standard.
3. Any engineering calculations or recommendations shall also be prepared by or under the direct supervision of a PE registered in the SOW.
4. STA's independent testing laboratory shall also comply with the Special Inspection requirements of the International Building Code (IBC), and all structural tests and inspections of fabricated and erected structural steel shall be in accordance with appropriate sections of the project specifications and special provisions.

C. Test Procedures

Inspections and tests to verify compliance with the specified requirements shall be performed by the materials testing laboratory personnel using recognized national standards (e.g., ASTM, ANSI, AWS, etc.) or in the absence of such standards, using written test procedures that have been reviewed and approved by STA. The written test procedures will include the following as a minimum:

- Prerequisites for the given test
- Required tools, equipment, and instrumentation
- Necessary environmental conditions
- Acceptance criteria
- Data to be recorded
- Test results reporting forms
- Identification of items tested

Acceptance inspection and testing shall be performed by qualified personnel designated by STA's independent QA/QC materials testing laboratory.

D. National Standards and Test Procedures

Procedures and instructions, including copies of recognized national standards and written test procedures, as applicable, shall be readily available to inspection and test personnel at the time of inspection or test. When methods of inspection and test are changed, revisions shall be reflected in approved written procedures prior to implementation of the change on any work. Adherence to methods and processes reflected in approved work procedures and instructions shall be complete and continuous.

E. Cost of CCL Contractor QC Inspections

The CCL Contractor shall bear all costs for any QC inspections and/or tests performed by its own QC testing laboratory, or other 3rd party individuals and/or agencies, in accordance with the project's construction contract.

F. Inspection and Test Results

Inspection and test results from the CCL Contractor's QC testing laboratory, if one is used, shall be submitted to STA prior to incorporation of products/materials into the work. Inspection/test results indicating non-compliance (failure) with specified requirements shall be reported to STA or STA's CMT immediately upon receipt. Certificates of compliance, as appropriate, shall be submitted prior to the product or material's incorporation into the work.

G. Inspection and Testing by 3rd Parties

Inspections and/or tests conducted by outside persons and/or 3rd party agencies for the CCL Contractor (or for its subcontractors, suppliers, or vendors) shall not in any way relieve the CCL Contractor of the specific responsibility and obligation to meet all technical specifications and referenced standards.

H. Inspection and Test Report Content

Records or reports of inspections and/or test activities performed by the CCL Contractor's QC testing laboratory, if one is used, or by other outside 3rd parties, are to be part of the weekly QC Report. Records of inspection and/or test activities shall identify the following as a minimum:

- Name of items inspected or tested
- Quantity of items
- Inspection/test procedure reference (with organization reference, as well)
- Date inspected or tested
- Name of inspector/tester (with name of organization or laboratory)
- Observations/comments
- Specified requirements (with section and paragraph number referenced)
- Type of test or inspection performed
- Acceptability
- Deviations/non-conformances
- Corrective action
- Evaluation of results
- Signature of authorized evaluator

I. STA Inspection of Products/Materials/Equipment

STA shall have the option to inspect the products/materials/equipment supplied and installed under this contract throughout the life of the project. The CCL Contractor shall provide STA with sufficient time to review any products/materials/equipment in the field, place of manufacture, or at any testing facility. The CCL Contractor shall provide STA with at least a 14-calendar day written notice, unless otherwise indicated, of any off-site manufacture,

testing, or other pertinent work to allow STA to inspect such work. STA will not approve any relevant manufactured item that is supplied and installed without prior written notice.

2.10 Inspection and Test Status

A documented system shall be developed and maintained to clearly identify the inspections and test status of products/materials and equipment throughout construction. Identification may be accomplished by means of stamps, tags, or other control devices attached to or accompanying the product/material or equipment.

2.11 Control of Measuring and Test Equipment

Control of measuring and test equipment shall be provided, calibrated, and maintained to assure that construction conforms to the requirements of the specification. A system to control the accuracy of all such equipment shall be established and maintained. The system shall include provisions for the unique identification of each piece of measuring and test equipment with a number or designation permanently affixed to the device. Calibration of M&TE shall be performed at intervals specified in calibration procedures by an agency/vendor specifically approved and using standards traceable to the National Institute of Standards and Technology (NIST). M&TE found to be out-of-tolerance, damaged, or lost during use shall be documented with a nonconformance report. Work inspected or tested with out-of-tolerance or damaged equipment shall not be considered acceptable until the nonconformance is resolved properly, and all characteristics previously inspected or tested have been verified as correct. In the event that no national standards exist for calibration, the basis for calibration shall be documented.

2.12 Nonconformance

A. Nonconforming Products/Materials and Equipment

A procedure shall be established acceptable to STA to define the methods and responsibilities for the identification, documentation, control and processing of nonconforming products/materials and equipment. A nonconformance shall be considered to exist when either the specific product/material or equipment exhibits a deficiency in either physical inspection characteristics or documentation. This procedure shall apply to all products/materials and equipment, including the actions associated with construction and/or equipment installation which, for any reason, fails to conform to the specifications for use or the applicable approved product/material description. The CCL Contractor shall provide the following to prevent use of nonconforming products/materials or equipment:

- Identification of non-conformance
- Reference documentation or standard
- Evaluations/recommendations
- Separation/removal
- Immediate notification to STA
- Cause of nonconformance
- Proposed Corrective Action (CA)
- CA actually implemented and documented

B. Nonconformance Log

The CCL Contractor, in conjunction with STA's CMT, shall develop and maintain a Nonconformance Log to enable tracking of all non-conformances. This Log shall contain the following information, as a minimum:

- Sequential, unique number
- Date issued
- Originator
- System affected, drawing number/serial number
- Description of nonconformance and source (supplier, subcontractor, welder, etc.)
- Recommended final disposition
- Date closed
- Remarks, as applicable

C. Authority to Stop Work

The CCL Contractor's QC Supervisor, and other designated QC personnel, shall have the authority to stop that portion of the work that does not comply with the contract requirements and to require the correction or removal of nonconforming work.

D. Disposition of Nonconformance Items

The disposition of any nonconforming products/materials or equipment, as determined from the CCL Contractor's Receiving Inspections, must be approved by STA.

E. Removal of Status Tags

Procedures shall be established that control the use of status tags, including logging, installation, and removal. Authorization for the removal of nonconformance tags shall be defined and the intentional removal by unauthorized personnel shall be prohibited. It's recommended that the QC Supervisor be responsible for monitoring and controlling this activity.

2.13 Corrective Action

Prompt action shall be taken to identify the basic cause of any nonconformance and to determine the corrective action to prevent recurrence. The results of failure and discrepancy report summaries, supplier evaluations and any other pertinent applicable data shall be used for determining corrective action. Information developed during construction, testing, and inspections that support the implementation of required improvements and corrections shall be used to support the adequacy of corrective action taken. A NCR/CAR process shall be used to document a resolved nonconformance and its corrective action.

2.14 Personnel Qualifications

Construction tasks and activities that require specially qualified production, inspection, and/or testing personnel shall be identified and the minimum competence level shall be established as part of the CCL Contractor's CQCP. Personnel performing special construction tasks or processes (e.g., welding, brazing, etc.) or related inspection/testing tasks, shall have the experience, training, and, where required, the certification or license, commensurate

with the scope, complexity or nature of the activity, and shall be approved by STA. Documentation shall consist of the following:

- Requirements for qualifications
- Relevance to project work scope
- Evaluation of qualifications
- Certification credential or license

Qualification records of the CCL Contractor and subcontractor personnel performing special construction-related tasks or activities, as described above, shall be maintained by the CCL Contractor as QC records.

2.15 Audits

It's recommended that the CCL Contractor perform its own scheduled internal QC audits, using non-project QC personnel, to verify that that its QC procedures are ensuring compliance with the project's specifications and special provisions, all reference standards, and its CQCP. A schedule for performing such audits should also be included in the CQCP. Records of self-audits shall be maintained as quality records and shall be submitted to STA within seven (7) calendar days of audit completion. The CCL Contractor shall provide STA's CMT and/or QA Manager, access to requested audit locations upon receiving prior notice. STA CMT and/or QA Manager may also perform random, unannounced audits of the CCL Contractor's general compliance to the CQCP.

2.16 Handling and Storage

Handling, storage, and preservation of project-related products/materials and equipment, from the time of receipt to the time of turnover to STA, shall be performed in accordance with documented procedures to prevent damage, deterioration, distortion of shape or dimension, loss, theft, degradation, loss of identification or substitution. Handling procedures shall include the use of special devices (e.g., crates, boxes, containers, dividers, slings, material handling and transportation equipment, and other facilities) for handling, and control provisions for inspection and maintenance of the special devices. Products/materials and equipment requiring specific time intervals for inspection and/or tests shall be appropriately marked and controlled.

2.17 QC Records

A. Record Index

Records shall be developed, used, and maintained, and shall include, but not be limited to, those specifically prescribed in this section. A complete records index shall be developed based on the requirements for document and data submittals in each specific section of the specifications and special provisions. The records index shall indicate all records, documentation, and data required by the contract to be furnished by the CCL Contractor. The records identified shall provide objective evidence that all CQCP activities conform, including evidence that any required production verification testing has been performed, and that evidence demonstrates the basis for decisions which were made.

All QC records shall be indexed, filed, and maintained in a manner that provides for timely retrieval, traceability to, and identification with, and acceptability of, products, materials,

equipment, and systems. All QC records shall be protected from deterioration and damage, including electronic media used for file storage and recordkeeping.

B. Content of Records

At a minimum, records should contain:

- Name of product/material, equipment, or system inspected or tested
- Specification reference by section and paragraph (where applicable)
- Quantity of items
- Location of installation
- Inspection and/or test procedure reference
- Date of inspection and/or test
- Signature of QC Supervisor or designated QC Inspector
- Observations and comments
- Test or inspection procedure, required test or inspection results, actual test or inspection results, and comments
- Recommended CA pursuant to any nonconformance/s found, when applicable.

2.18 Supplier/Vendor Quality

It's recommended that a documented system be developed and maintained to assure that products, materials and equipment procured from subcontractors, suppliers, and vendors conform to the requirements of the project specifications and special provisions. A supplier/vendor quality system should include written procedures that provide for:

- Evaluation and selection of suppliers and vendors, using specified evaluation criteria.
- Transmission of applicable design, manufacturing, quality and other associated technical requirements in purchase documents.
- Periodic assessment of supplier/vendor performance.
- An evaluation of the adequacy of procured products.

2.19 Samples

All samples of products, materials, equipment or assemblies to be incorporated into the work, as may be required by specific provisions stated in the project specifications and special provisions, and that are required to be submitted as part of the submittal review and approval process, shall be retained for a minimum of one year following the date of submission acceptance by STA. The CCL Contractor shall provide a 30-day notice to STA of its intent to discard or destroy any such samples as may be in its possession or the possession of its subcontractors

Part III—Implementation of the CQCP

3.1 General

The CCL Contractor's CQCP shall be implemented through the establishment of a separate QC inspection organization that is managed and supervised on-site by the CCL Contractor's QC Supervisor.

3.2 Requirements

A. Quality Control Supervisor

The QC Supervisor shall have the qualifications as stated in section/paragraph 2.6C above, and shall have the responsibility of ensuring the quality of the work completed by the CCL Contractor in compliance with the project's contract drawings, technical specifications and special provisions. The QC Supervisor shall be physically on the project site, as necessary, during performance of all contract work, to insure ongoing compliance with the approved CQCP.

B. Supplemental Specialty QC Inspectors

Structural, mechanical, and electrical Specialty QC Inspectors, who are either engineers or engineering technicians (except as noted in the technical specifications and special provisions), shall be provided during operations such as steel erection/bolt-up and the installation, testing, adjusting, and balancing of major mechanical and electrical components and devices, equipment, and systems. The occurrence that will require each to be at the project site shall be indicated in the CCL Contractor's CQCP. These QC inspectors shall report directly to the Contractor's QC Supervisor and will only be needed on-site for the specified specialty inspection.

The experience requirement for Specialty QC Inspectors shall be a minimum of five (5) years of experience as an engineer, an engineering technician, or an engineering technician supervisor in related work in addition to one of the following:

1. Registered/Licensed PE, or
2. Graduate Engineer (EIT), or
3. NICET Certified Engineering Technician (in the appropriate field)
4. A total of not less than four (4) years of college level education, training, and/or technical experience of such nature and extent that, taken in conjunction with any private study, evidences:
 - a) A thorough knowledge of the physical and mathematical sciences underlying engineering; and
 - b) A good understanding, both theoretical and practical, of the engineering sciences and techniques and their applications to that of the respective branch of engineering, substantially equivalent to that furnished by a full four-year engineering degree curriculum.
 - c) The minimum qualifications for engineering technicians shall be a high school graduate with not less than five (5) years construction experience as an engineering technician or engineering technician supervisor in the field of work for which he is employed on this contract.

C. Construction Surveying

A SOW Registered Land Surveyor (RLS) shall be employed by the CCL Contractor to perform all survey monument tie-in and dimensional layout for each BRT/HCT station site and roadway construction site as is required to construct the project. STA will employ a separate independent surveying consultant to perform QA surveying, as required, under the direction of STA's CMT, to monitor and verify the CCL Contractor's surveying work. All QA surveying work will also be completed by a SOW RLS.

D. Independent Testing Laboratory

An industry recognized accredited independent materials testing laboratory will perform all QA/QC and acceptance testing, both on-site and off-site, on behalf of STA, in connection with earthwork, trenching and backfilling, bituminous paving, station slab construction, concrete paving and placement, as well as any other tests that may be indicated by the nature of the construction, or as are specifically required under the provisions of the contract documents.

E. Electrical Testing

An independent testing firm/agency shall perform any required electrical testing. The testing firm/agency shall be a licensed, corporately and financially independent testing organization that can function as an unbiased testing authority, professionally independent of the manufacturers, suppliers, and installers of equipment or systems being evaluated by the testing firm/agency. The testing firm/agency shall have at least five (5) years of experience in the testing of electrical equipment of the type, rating, and voltage used on the project and shall be an accredited member of the National Electrical Testing Association (NETA).

F. QC Staffing Levels

In addition to the QC Supervisor, the CCL Contractor may provide other sufficiently experienced and qualified QC personnel to monitor work activity, if required. The QC Supervisor's scheduling and coordinating of any additional QC inspection and/or testing staff should match the pace of work activity, for example:

1. In cases where multiple trades, disciplines, or subcontractors are on-site or at multiple construction sites at the same time, all activities should be inspected and/or tested by personnel knowledgeable in that portion of the work.
2. In cases where multiple shifts are employed, the QC inspection staff, in turn, may also need to be increased, as required, to inspect and/or test, or monitor, the work being undertaken on each shift.

G. Site Inspections by STA

All products/materials and equipment required for the contract shall be new, except where specified otherwise. STA may elect to perform additional inspections and/or tests at the place of the manufacture, the shipping point or at the destination, to verify compliance with applicable specifications. Inspections and tests performed by STA shall be for acceptance testing, but shall not relieve the CCL Contractor from the responsibility of meeting the specified requirements, nor shall such inspections or tests be considered to be a guarantee for acceptance of items that will be delivered subsequent to the time products/materials or equipment were originally inspected and/or tested.

H. Nonconforming Work

Nonconforming work is products/materials or equipment furnished or work performed which does not comply with contract requirements. The CCL Contractor's QC Supervisor shall be responsible for informing STA immediately upon discovery of nonconforming work. When nonconforming work is discovered, STA may reject the materials or workmanship, or require its correction. The CCL Contractor shall satisfactorily correct rejected workmanship or satisfactorily replace rejected products/materials/equipment at CCL Contractor's own expense and promptly segregate and remove rejected products/materials/equipment from the work site and properly dispose of them in a manner approved by STA. Or, STA may accept the products/materials/equipment or workmanship as suitable for the intended purpose, document the basis of such acceptance, and deduct an equitable amount from the contract price for uncorrected work.

I. Acceptance by Certificate of Compliance

Products/materials or equipment accepted on the basis of a Certificate of Compliance may be sampled and inspected and/or tested by STA, or its designee, at any time. The fact that the products/materials or equipment were accepted on the basis of such a Certificate shall not relieve the CCL Contractor of his responsibility to provide products/materials and equipment which comply with the project's specifications and special provisions.

J. Suppliers and Subcontractors QC Requirements

The CCL Contractor may additionally impose upon its subcontractors, suppliers, and vendors, similar QC requirements, including requiring inspection and test procedures, as applicable, as are imposed upon the CCL Contractor by the project specifications and referenced standards. The CCL Contractor may also apply appropriate follow-up controls designed to ensure that all products/materials and equipment supplied comply with the requirements of the specifications and special provisions. These additional requirements, if imposed, shall also be stated in the CQCP.

3.3 CQCP Approval

A. CQCP Meeting with STA Quality Manager

Before the CQCP is submitted for review, it's recommended that the CCL Contractor meet with STA's Quality Manager to further discuss the contents of the CQCP. The purpose of this meeting would mainly be to help all parties develop a better mutual understanding of the requirements of the CQCP, including discussing the forms to be used for recording and communicating QC inspections and/or tests for both on-site and off-site work, and the interrelationship of the CCL Contractor's QC Supervisor and other QC staff, if assigned, with STA's CMT QA inspection personnel. The CCL Contractor shall prepare minutes of this meeting which shall also be incorporated as an attachment to the CCL Contractor's CQCP.

B. CQCP Approval Prior to Fabrication

Unless specifically authorized by STA's Quality Manager, no construction or off-site fabrication shall be started until the CCL Contractor's CQCP is approved. Construction of any feature of the work will only be permitted after the approval of the CQCP, or at least approval of that portion of the CQCP applicable to the specific feature of the work. At the election of the STA Contracting Officer, no request for payment will be processed under this contract

until the entire CQCP has been approved.

C. Notifications of Changes to STA

The CCL Contractor shall notify STA's CMT and Quality Manager, in writing, of any proposed change to the Contractor's CQCP. No such change shall be implemented prior to approval in writing by STA.

3.4 CQCP Implementation

Implementation of the CQCP is the responsibility of the CCL Contractor. This implementation will be closely monitored by the STA and deficiencies therein will be corrected by, or at the expense of, the CCL Contractor. If STA's CMT or Quality Manager determines that the designated quality personnel, inspections and/or tests, QC records, or the CQCP itself are not adequate, corrective actions shall be taken immediately upon notice to the CCL Contractor as are appropriate to cure the problem.

3.5 Recordkeeping

A. Keeping QC Records Current

The CCL Contractor shall maintain current QC records, on STA approved forms, of all inspections and/or tests performed. These records shall indicate factual evidence that the required inspections and/or tests have been performed, including: the precise location of inspections and/or tests made, the type and number of inspections and/or tests involved, the results of inspections and/or tests, the nature of any defects, the causes for rejection, etc.; and the proposed remedial action and corrective actions taken.

QC records should address both conforming and defective or deficient features and include the corrective actions taken. Legible copies of any supplemental QC inspection and/or test records must also be provided to STA's CMT as part of the weekly QC summary reporting process. In general, the records shall cover all work undertaken subsequent to the previously furnished records and shall be verified by the CCL Contractor's Quality Control Supervisor. The CCL Contractor shall additionally document inspection and/or tests as specified in the technical provisions of the specifications and special provisions. All QC records shall be available for review and/or audit by STA's CMT or Quality Manager throughout the life of the contract.

B. Specific QC Records

Specifically, the CCL Contractor shall complete/maintain/submit the following QC records.

1. Weekly QC Summary Reports

The CCL Contractor's QC Supervisor shall maintain daily QC records and submit weekly QC summary reports to STA's CMT as outlined in the section above. The weekly QC summary reports shall address all project QC-related activities per the following, as is applicable for that reporting period:

a. Product/Material/Equipment Deliveries:

Shall identify all product/material/equipment deliveries, status and results of receiving inspections, whether stored on-site or for imminent use or installation.

b. Product/Material/Equipment Submittals:

Shall list all product/material/equipment document and required sample submittals made during the week and their current status, including updates of prior week's submittals that have been subsequently approved, or that must be resubmitted and for what reasons.

c. **General Project QC Activity:**

Shall summarize all of the week's QC activities undertaken by and/or under the direction of the QC Supervisor, including any specific QC problems encountered or resolved; failing test results received or corrected; and other significant events impacting project quality or contract compliance.

2. QC Test Reports

A copy of all test results from the CCL Contractor's QC testing laboratory, if one is employed, shall be sent directly from that testing laboratory to STA's CMT. A copy of any failing test report shall also be forwarded by STA's CMT to the STA Quality Manager. All test reports must be reviewed and signed by a PE registered in the SOW.

3. Daily QC Field Test Reports

A copy of all daily field test reports (technicians' hand-written reports) from the CCL Contractor's QC testing laboratory, if one is employed, as well as file copies of official laboratory test reports received that day, shall be attached to the weekly QC summary report.

4. QC Test Control Log

The CCL Contractor shall maintain a log to record and track each test performed by its QC testing laboratory, if one is employed. The log shall indicate date of test, test designation or type, location, specification test result requirements, initial test results, causes for failing test, recommended remedial actions, and reference to subsequent retests and their results.

5. QC Punch List

The CCL Contractor shall maintain a continuous log, or "rolling" punch list to record and track all QC inspections and/or tests which remain "open" or uncorrected at the close of each workday or shift. The log shall number each item in successive, chronological order and shall briefly describe the nature and location of the work, the nature of the inspection and/or test, causes for rejection, corrective actions recommended, identity of inspector or technician, date the item was corrected, and identity of inspector or technician who verified the corrective action.

6. QC Sign-Off Sheets

The CCL Contractor will be responsible, in conjunction with STA's CMT, for establishing a system of QC sign-off sheets/checklists certifying that all work required prior to the construction or start-up of critical work elements has been constructed and installed in accordance with the project drawings, specifications and special provisions.

a. **Critical work elements are defined as:**

- Work activities concealing any feature of the work from subsequent inspection, such as concrete placements.

- Start-up activities potentially damaging to work in place (i.e., energizing any electrical systems and/or communications cabinets).
- b. Sign-off sheets/checklists shall also be signed by the CCL Contractor's QC Supervisor.
- c. The CCL Contractor shall provide a copy of the completed sign-off sheets/checklists to STA's CMT prior to performing each critical work element.

3.6 Laboratory Testing

A. Contract Specifications

The independent materials testing laboratory selected by the STA shall meet the standards set forth in the contract specifications, including ASTM E329-18, "Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection" and other standards as stated in section 2.9 above. The CCL Contractor's QC materials testing laboratory, if one is employed, shall also meet these same standards.

B. Capability/Compliance Check

If the CCL Contractor chooses to employ its own QC testing laboratory, STA reserves the right to check this laboratory's equipment for compliance with the standards set forth in the contract specifications and to additionally check the laboratory's testing procedures and techniques, technician training and personnel qualification records, and equipment calibration records. All must be in order.

C. Construction Control/Check Tests

Control tests or check tests are those tests made for the convenience of the CCL Contractor to assist in checking the progress of construction work toward meeting certain project requirements for acceptance, (i.e., soil compaction percentage). As described above, the CCL Contractor may procure the services of its own independent QC materials laboratory to perform additional routine control testing. The technical specifications contain testing criteria, testing frequency, procedures, methods, and other information from which the CCL Contractor can determine, based on its method of construction, the number of control tests that should be made for each phase of the work. STA's CMT is also to be notified a minimum of 24 hours in advance of the time samples will be taken by the CCL Contractor's testing laboratory for QC testing. STA's CMT will then notify the STA's independent QA/QC materials testing laboratory when formal acceptance test samples and tests may be undertaken.

3.7 Field Testing

A. Test Locations

STA reserves the right to approve the location from which test samples will be taken and/or at which location on-site acceptance tests are conducted.

B. Methodology

Prior to performing field testing, STA's materials testing laboratory shall:

1. Verify that field testing procedures comply with applicable codes and contract requirements.
2. Verify that facilities and testing equipment are available and comply with applicable

codes and testing standards.

3. Check test instrument calibration against certified standards. Copies of test instrument calibration certificates shall be maintained by the laboratory.
4. Verify that recording forms and test procedures have been prepared and distributed.

3.8 Quality Awareness Program and Training

It's recommended that the CCL Contractor also institute a Quality Awareness Program to ensure continuing attention to the production and installation of error-free work, complying with contract requirements. A quality awareness program should be established to provide for education, training, tool-box meetings, meetings with subcontractors, suppliers and vendors, and other activities designed to:

1. Emphasize the importance of high-quality work.
2. Stress the concept that quality is best achieved during initial fabrication and/or installation of the work; i.e., "Do it right the first time".
3. Enhance the exchange of technical and other information pertaining to quality throughout the Contractor's project organization.
4. Eliminate noncompliant work requiring rework or replacement.

The CCL Contractor should implement this program with all members of its project team, including all subcontractors, suppliers, vendors, fabricators, as applicable, as well as within all levels of the CCL Contractor's own project organization.

3.9 QA Surveillance by STA

A. Quality Assurance Role

STA will perform a Quality Assurance role, closely monitoring performance of the CCL Contractor's adherence to the CQCP to make sure it's effective. The basic measure of effectiveness is that the work is performed correctly the first time. Secondly, if a problem does occur, that action is immediately taken not only to correct the specific problem, but to make sure it will not occur again.

B. Spot Checks

STA's Quality Manager and/or CMT will spot check and/or audit the CCL Contractor primarily for assurance that the CCL Contractor's CQCP is functioning efficiently and effectively. STA's spot checks and/or audits are not intended to supplement or replace the Contractor's own recommended self-audit capability.

C. Surveillance of Products/Materials and Equipment

All products/materials and equipment shall be subject to surveillance by STA at the point of production, manufacture, or shipment, to determine if the producer, manufacturer, or shipper maintains an adequate inspection system which insures conformance to the applicable specifications and drawings with respect to materials, workmanship, construction, finish, functional performance, and identification. In addition, all products/materials, equipment, and work in place shall be subject to surveillance by the STA at the site for the same purposes. Surveillance by STA does not relieve the CCL Contractor of performing QC

inspections of either on-site or off-site subcontractor's or supplier's work.

D. Purchase Orders

Upon determination by STA's Quality Manager or CMT, and according to the project's technical specifications and special provisions that an item will require surveillance at the point of production, manufacture, or shipment, the CCL Contractor will be notified, in writing, of such determination. Copies of documented production QC operations, inspections, and/or tests shall be made available to the STA representative at the points of production, manufacture, and/or shipment.

E. Building Code Requirements and Compliance

STA is responsible for performing building code acceptance Special Inspections under SOW and local COS building codes and regulations, along with any related testing. The CCL Contractor is responsible for all other state and local building codes and any permit-related inspections and tests. The latter includes both obtaining the required permits and scheduling any needed compliance inspections by relevant COS personnel.

END OF CQMP DOCUMENT

SECTION 007300.1 – SAMPLE PAYMENT APPLICATION

Spokane Transit Authority			
Project: City Line Stations 13, 15, 17 - Riverside Ave			
SAMPLE PAY APPLICATION FORMAT			
<i>* Contractor to insert</i>			
Cost Cat.	Item No.*	Description*	Cost
Station 13 - Riverside and Stevens			
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)			
	20.01	At-grade station, stop, shelter, mall, terminal, platform	
		<Contractor to insert bid items/description here>	
	20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	
		<Contractor to insert bid items/description here>	
40 SITEWORK & SPECIAL CONDITIONS			
	40.01	Demolition, Clearing, Earthwork	
		<Contractor to insert bid items/description here>	
	40.02	Site Utilities, Utility Relocation	
		<Contractor to insert bid items/description here>	
	40.05	Site structures including retaining walls, sound walls	
		<Contractor to insert bid items/description here>	
	40.06	Pedestrian / bike access and accommodation, landscaping	
		<Contractor to insert bid items/description here>	
	40.07	Automobile, bus, van access ways including roads, parking lots	
		<Contractor to insert bid items/description here>	
	40.08	Temporary Facilities and other indirect costs during construction	
		<Contractor to insert bid items/description here>	
50 SYSTEMS			
	50.02	Traffic signals and crossing protection	
		<Contractor to insert bid items/description here>	
	50.04	Traction power distribution: catenary and third rail	
		<Contractor to insert bid items/description here>	
	50.05	Communications	
		<Contractor to insert bid items/description here>	
	50.06	Fare collection system and equipment	
		<Contractor to insert bid items/description here>	
SUBTOTALS:			
PROJECT TOTALS:			

END OF SECTION 007300.1

SECTION 007300.2 – SAMPLE CERTIFICATE OF MATERIALS ORIGIN



Certification of Materials Origin (CMO)
(BUY AMERICA IS REQUIRED CONSISTENT WITH THE CONTRACT DOCUMENTS,
SEE DIVISION 0, SECTION 004548.A.)



Awarding Agency Contract No. and Title: Spokane Transit Authority, Project #2021-10602, City Line Stations 13, 15, 17 – Riverside Ave	
Contractor: TBD	
Subcontractor: {Legal Name}	
Manufacturer / Supplier: {Legal Name}	
Materials: Bid Item No. / Bid Item Description {Bid Item Information}	UOM / Quantity {UOM / Qty}
Material Description: (such as: Specification Section and product description) {Description}	

The following Certification of Materials Origin is made for the purposes of establishing materials acceptance under Contract Provisions entitled "Buy America." Materials as described above are furnished for use in compliance with the certification as noted in 1 or 2 below.

- 1. The materials covered by this certification comply with the Federal Transit Administration's (FTA) Buy America requirements with all manufacturing processes occurring entirely within the United States of America.
- 2. The materials furnished for this project under this certification contain steel or iron manufactured, all or in part, outside the United States of America, as indicated below.

The description and Country of Origin of these materials is as follows: {Description}
--

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

{Legal Name} _____
Contractor / Subcontractor / Manufacturer / Supplier

{Print Name} _____
Authorized Corporate Official's Name Printed

Authorized Corporate Official's Signature

{MM/DD/YYYY} _____
Date

{Station No. / Storage Area} _____
Place

END OF SECTION 007300.2

SECTION 007346.1 – WA PREVAILING WAGE RATES – SPOKANE COUNTY

In the preparation of its Bid, based on these specifications, the Bidder is solely responsible to:

1. Use the prevailing wage schedule in effect for the Bid Due Date; and
2. Determine the appropriate labor classification(s); and
3. Utilize the appropriate and correct prevailing wage and benefit rate(s).

The State of Washington, Department of Labor and Industries issues revised wage schedules twice per year (every 6 months) which become effective approximately the first of March and the last of August. The wage schedule that will apply to this solicitation will be the schedule in effect as of the Bid Due Date. Therefore, the Bidder is cautioned to be mindful that Addenda changing the Bid Due Date could make the enclosed schedule obsolete. The Bidder is solely responsible to determine what schedule is applicable to this solicitation and to use that schedule in the preparation of its Bid.

The Prevailing Wage Documents for Public Works from the Washington State Department of Labor and Industries for Spokane County may be found on the Department of Labor and Industries website located at: <https://secure.lni.wa.gov/wagelookup>. Printed copies of the current prevailing wage schedules and forms are available by contacting STA in accordance with subsection 3 of Section 002100 – Instructions to Bidders.

Questions regarding prevailing wages should be directed to the State of Washington, Department of Labor & Industries, located at 901 N. Monroe St., Suite 100, Spokane, Washington, (509) 324-2600; or to PO Box 44540, Olympia WA 98504-4540; (360) 902-5335.

END OF SECTION 007346.1

SECTION 007346.2 – DAVIS BACON WAGE DETERMINATIONS

County: Spokane, Washington
Construction Type: Building
General Decision Number: WA20210017
Effective Date: 03/12/2021

Construction Type: Highway
General Decision Number: WA20210001
Effective Date: 02/26/2021

In the preparation of its Bid, the Bidder is solely responsible to:

1. Use the Davis Bacon Wage Determinations in effect for the Bid Due Date; and
2. Determine the appropriate labor classification(s); and
3. Utilize the appropriate and correct prevailing wage and benefit rate(s).

A copy of the wage determination as of the issue date of this solicitation is attached hereto and incorporated herein. However, the wage determinations that will apply to this solicitation will be the schedule in effect as of the Bid Due Date.

If there are discrepancies in wages between the construction types, the higher of the wages shall be used.

The Bidder is cautioned to be mindful that Addenda changing the Bid Due Date could make the enclosed schedule obsolete. In the event the enclosed schedule becomes obsolete, Owner will provide a revised schedule via solicitation Addenda. The Bidder is solely responsible to use the most current schedule in the preparation of its Bidder.

Davis Bacon Wage Determinations may also be found at <https://beta.sam.gov/search?index=wd>.

END OF SECTION 007346.2

"General Decision Number: WA20210017 03/12/2021

Superseded General Decision Number: WA20200017

State: Washington

Construction Type: Building

County: Spokane County in Washington.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/01/2021

1 03/12/2021

ASBE0082-001 08/01/2019

Rates Fringes

ASBESTOS WORKER/HEAT & FROST

INSULATOR.....\$ 37.27 20.27

BRWA0001-002 06/01/2017

 Rates Fringes

BRICKLAYER.....\$ 39.46 16.15

CARP0059-008 06/01/2020

 Rates Fringes

CARPENTER (Excluding
Acoustical ceiling, Drywall
Hanging and Form Work).....\$ 31.91 17.36

ZONE PAY:

ZONE 1 0-45 MILES FREE
ZONE 2 45-100 MILES \$4.00 PER HOUR
ZONE 3 OVER 100 MILES \$6.00 PER HOUR

DISPATCH POINTS:

CARPENTERS/MILLWRIGHTS: PASCO (515 N. Neel Street) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: MOSCOW (302 N. JACKSON) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task, where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D+ \$.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.

LEVEL C+ \$.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B+ \$.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."

LEVEL A+ \$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

 ELEC0073-003 07/01/2020

	Rates	Fringes
ELECTRICIAN.....	\$ 37.65	19.68

 ELEC0073-010 10/26/2020

	Rates	Fringes
ELECTRICIAN (Sound Equipment Installation Only).....	\$ 28.92	17.01

 ENGI0370-017 07/01/2019

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 28.46	17.25
GROUP 2.....	\$ 28.78	17.25
GROUP 3.....	\$ 29.39	17.25
GROUP 4.....	\$ 29.55	17.25
GROUP 5.....	\$ 29.71	17.25
GROUP 6.....	\$ 29.99	17.25
GROUP 7.....	\$ 31.26	17.25
GROUP 8.....	\$ 31.36	17.25

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - \$2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Compactor; Drill Oiler; Rollers, all types on subgrade, including seal and chip coatings

GROUP 2: Fork Lift

GROUP 3: Bulldozer (up to D-6 or equivalent)

GROUP 4: Drills (churn, core, calyx or diamond); Oiler; Loaders (overhead & front-end, under 4 yds. R/T); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (Under 45,000 gw); Trackhoe/Excavator (hoe Ram) (under 3/4 yd.); Cranes (25 tons & under), Drilling Equipment(8 inch bit & over) (Robbins, reverse circulation & similar)

GROUP 6: Asphalt Roller; Backhoe (45,000 gw and over to 110,000 gw); Trackhoe/Excavator (Hoe Ram) (3/4 yd. to 3 yd.); Compactor (self-propelled with blade); Cranes (over 25 tons, to and including 45 tons), Bulldozer, 834 R/T & similar; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Scrapers, all, rubber-tired; Screed Operator

GROUP 7: Backhoe (Over 110,000); Trackhoe/Excavator (Hoe Ram) (3 yds & over); Cranes (over 45 tons to but not including 85 tons); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Blade

GROUP 8: Cranes (85 tons and over, and all climbing, overhead,rail and tower); Loaders (overhead and front-end, 10 yards and over)

BOOM PAY: (All Cranes, Including Tower)

180 ft to 250 ft \$.50 over scale

Over 250 ft \$.80 over scale

NOTE:

In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:

Anyone working on HAZMAT jobs, working with supplied air shall receive \$1.00 an hour above classification.

IRON0014-012 07/01/2020

	Rates	Fringes
IRONWORKER (Ornamental, Reinforcing and Structural).....	\$ 34.59	30.10

LABO0238-014 06/01/2020

	Rates	Fringes
LABORER: Mason Tender - Brick...	\$ 29.06	13.65

LABO0238-024 06/01/2020

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 26.69	13.65
GROUP 2.....	\$ 28.79	13.65
GROUP 3.....	\$ 29.06	13.65
GROUP 4.....	\$ 29.33	13.65

Zone Differential (Add to Zone 1 rates): Zone 2 - \$2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: 45 radius miles and over from the main post office

LABORERS CLASSIFICATIONS

GROUP 1: Flagman

GROUP 2: Common or General Laborer; Form-Stripping

GROUP 3: Chipping Guns; Concrete Saw; Pipelayer

GROUP 4: Asphalt Raker; Grade Checker; Gunite; Vibrating Plate

PAIN0054-001 06/01/2008

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 22.78	8.88

PAIN0054-002 07/01/2019

	Rates	Fringes
GLAZIER.....	\$ 22.38	9.11

PAIN0054-004 10/01/2005

	Rates	Fringes
FLOOR LAYER: Carpet and Vinyl....	\$ 15.50	4.22

PLAS0072-006 06/01/2020

	Rates	Fringes
PLASTERER.....	\$ 31.30	15.53

Zone Differential (Add to Zone 1 rate): Zone 2 - \$2.00

BASE POINTS: Spokane, Pasco, Lewiston, Wenatchee

Zone 1: 0-45 radius miles from the main post office

Zone 2: Over 45 radius miles from the main post office

* PLUM0044-001 06/01/2020

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 43.86	23.44

ROOF0189-013 07/01/2020

	Rates	Fringes
ROOFER (Including Tearoff).....	\$ 28.68	13.26

SHEE0066-007 06/01/2013

	Rates	Fringes
Sheet metal worker (Includes		

HVAC DUCT and Metal Roof
Installation).....\$ 28.25 17.22

TEAM0690-008 01/01/2019

Rates Fringes

Truck drivers: (ANYONE
WORKING ON HAZMAT JOBS SEE
FOOTNOTE A BELOW)

ZONE 1: LEWISTON ZONE
CENTER

GROUP 3.....\$ 28.16	17.40
GROUP 4.....\$ 28.49	17.40
GROUP 5.....\$ 28.60	17.40
GROUP 6.....\$ 28.76	17.40
GROUP 7.....\$ 29.30	17.40
GROUP 8.....\$ 29.62	17.40

ZONE 1: PASCO ZONE CENTER

GROUP 3.....\$ 28.16	17.40
GROUP 4.....\$ 28.49	17.40
GROUP 5.....\$ 28.60	17.40
GROUP 6.....\$ 28.76	17.40
GROUP 7.....\$ 29.30	17.40
GROUP 8.....\$ 29.62	17.40

ZONE 1: SPOKANE ZONE CENTER

GROUP 3.....\$ 28.16	17.40
GROUP 4.....\$ 28.49	17.40
GROUP 5.....\$ 28.60	17.40
GROUP 6.....\$ 28.76	17.40
GROUP 7.....\$ 29.30	17.40
GROUP 8.....\$ 29.62	17.40
ROUP 5.....\$ 27.41	17.30

Zone Differential For ZONE 2: (Zone 1 +\$2.00)

BASE POINTS: Spokane, Moses Lake, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office
Zone 2: Outside a 45 mile radius from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 3: Trucks, side, end, bottom and articulated end dump
(3 yards to and including 6 yds.)

GROUP 4: Trucks, side, end, bottom and articulated end dump
(over 6 yds. to & including 12 yds.)

GROUP 5: Trucks, side, end, bottom and articulated end dump
(over 12 yds. to & including 20 yds.)

GROUP 6: Trucks, side, end, bottom and articulated end dump
(over 20 yds. to & including 40 yds.)

GROUP 7: Truck, side, end, bottom and articulated end dump
(over 40 yds. to & including 100 yds.)

GROUP 8: Trucks, side, end, bottom and articulated end dump
(over 100 yds.)

FOOTNOTE A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - \$.50 PER HOUR - This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - \$1.00 PER HOUR - Uses supplied air in conjunction with a chemical splash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

SUWA2009-030 05/22/2009

	Rates	Fringes
CARPENTER (Acoustical Ceiling Installation Only).....	\$ 18.00	1.43
CARPENTER (Drywall Hanging Only).....	\$ 20.62	0.00
CARPENTER (Form Work Only).....	\$ 18.63	2.65
LABORER: Handheld Drill.....	\$ 17.17	5.36
LABORER: Irrigation.....	\$ 11.58	0.00
LABORER: Landscape.....	\$ 11.48	0.00
LABORER: Mason Tender -		

Cement/Concrete.....	\$ 9.00	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 15.31	0.00
OPERATOR: Concrete Pumper.....	\$ 22.30	5.27
OPERATOR: Mechanic.....	\$ 24.33	4.33
PAINTER: Brush Only.....	\$ 13.00	0.50
PAINTER: Roller.....	\$ 22.62	0.25
PAINTER: Spray.....	\$ 22.47	0.00
TILE SETTER.....	\$ 14.83	0.00
TRUCK DRIVER: Semi-Trailer Truck.....	\$ 20.59	5.56

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

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

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the

wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the

Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: WA20210001 02/26/2021

Superseded General Decision Number: WA20200001

State: Washington

Construction Type: Highway

Counties: Washington Statewide.

HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin Counties)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021
1	01/22/2021
2	02/12/2021
3	02/26/2021

CARP0003-006 06/01/2018

SOUTHWEST WASHINGTON: CLARK, COWLITZ, KLICKITAT, LEWIS(Piledriver only), PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to Willapa Bay to the Pacific Ocean), SKAMANIA, and WAHAKIUM Counties.

Rates Fringes

Carpenters:

CARPENTERS.....	\$ 37.64	16.83
DIVERS TENDERS.....	\$ 43.73	16.83
DIVERS.....	\$ 87.73	16.83
DRYWALL.....	\$ 37.64	16.83
MILLWRIGHTS.....	\$ 38.17	16.83
PILEDRIVERS.....	\$ 38.71	16.83

DEPTH PAY:

50 TO 100 FEET \$1.00 PER FOOT OVER 50 FEET
101 TO 150 FEET \$1.50 PER FOOT OVER 101 FEET
151 TO 200 FEET \$2.00 PER FOOT OVER 151 FEET

Zone Differential (Add up Zone 1 rates):

Zone 2 - \$0.85
Zone 3 - 1.25
Zone 4 - 1.70
Zone 5 - 2.00
Zone 6 - 3.00

BASEPOINTS: ASTORIA, LONGVIEW, PORTLAND, THE DALLES, AND VANCOUVER, (NOTE: All dispatches for Washington State Counties: Cowlitz, Wahkiakum and Pacific shall be from Longview Local #1707 and mileage shall be computed from that point.)

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities

ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities

ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities

ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.

ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities

ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

CARP0030-004 06/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM Counties

Rates Fringes

CARPENTER

BRIDGE CARPENTERS.....	\$ 46.92	18.02
CARPENTERS ON CREOSOTE MATERIAL.....	\$ 47.02	18.02
CARPENTERS.....	\$ 46.92	18.02
DIVERS TENDER.....	\$ 51.89	18.02
DIVERS.....	\$ 100.78	18.02
MILLWRIGHT AND MACHINE ERECTORS.....	\$ 48.42	18.02
PILEDRIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED MATERIAL, ALL PILING.....	\$ 47.17	18.02

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

- | | | |
|---------|-----------|------------|
| Seattle | Olympia | Bellingham |
| Auburn | Bremerton | Anacortes |
| Renton | Shelton | Yakima |

Aberdeen-Hoquiam Tacoma Wenatchee
 Ellensburg Everett Port Angeles
 Centralia Mount Vernon Sunnyside
 Chelan Pt. Townsend

Zone Pay:

0 -25 radius miles Free
 26-35 radius miles \$1.00/hour
 36-45 radius miles \$1.15/hour
 46-55 radius miles \$1.35/hour
 Over 55 radius miles \$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

0 -25 radius miles Free
 26-45 radius miles \$.70/hour
 Over 45 radius miles \$1.50/hour

 CARP0059-002 06/01/2019

ADAMS, ASOTIN, BENTON, CHELAN (East of 120th meridian), COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT (East of 120th meridian), KITTITAS (East of 120th meridian), LINCOLN, OKANOGAN (East of 120th meridian), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, and YAKIMA (East of 120th meridian) Counties

Rates Fringes

CARPENTER

GROUP 1.....	\$ 35.47	16.88
GROUP 2.....	\$ 47.42	18.96
GROUP 3.....	\$ 36.66	16.88
GROUP 4.....	\$ 36.66	16.88
GROUP 5.....	\$ 83.96	16.88
GROUP 6.....	\$ 40.23	16.88
GROUP 7.....	\$ 41.23	16.88

GROUP 8.....	\$ 37.66	16.88
GROUP 9.....	\$ 44.23	16.88

CARPENTER & DIVER CLASSIFICATIONS:

GROUP 1: Carpenter

GROUP 2: Millwright, Machine Erector

GROUP 3: Piledriver - includes driving, pulling, cutting, placing collars, setting, welding, or creosote treated material, on all piling

GROUP 4: Bridge, Dock, and Wharf carpenters

GROUP 5: Diver Wet

GROUP 6: Diver Tender, Manifold Operator, ROV Operator

GROUP 7: Diver Standby

GROUP 8: Assistant Diver Tender, ROV Tender/Technician

GROUP 9: Manifold Operator-Mixed Gas

ZONE PAY:

ZONE 1	0-45 MILES	FREE
ZONE 2	45-100	\$4.00/PER HOUR
ZONE 3	OVER 100 MILES	\$6.00/PER HOUR

DISPATCH POINTS:

CARPENTERS/MILLWRIGHTS: PASCO (515 N Neel Street) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS/PILEDRIIVER: SPOKANE (127 E. AUGUSTA AVE.) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: WENATCHEE (27 N. CHELAN) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: COEUR D' ALENE (1839 N. GOVERNMENT WAY) or Main

Post Office of established residence of employee (Whichever is closest to the worksite).

CARPENTERS: MOSCOW (306 N. JACKSON) or Main Post Office of established residence of employee (Whichever is closest to the worksite).

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:

50-100 feet \$2.00 per foot

101-150 feet \$3.00 per foot

151-220 feet \$4.00 per foot

221 feet and deeper \$5.00 per foot

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:

0-25 feet Free

26-300 feet \$1.00 per Foot

SATURATION DIVING:

The standby rate applies until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. the diver rate shall be paid for all saturation hours.

WORK IN COMBINATION OF CLASSIFICATIONS:

Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

HAZMAT PROJECTS:

Anyone working on a HAZMAT job (task), where HAZMAT certification is required, shall be compensated at a premium, in addition to the classification working in as follows:

LEVEL D + \$.25 per hour - This is the lowest level of protection. No respirator is used and skin protection is minimal.

LEVEL C + \$.50 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B + \$.75 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit".

LEVEL A +\$1.00 per hour - This level utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line.

 CARP0770-003 06/01/2020

WEST OF 120TH MERIDIAN FOR THE FOLLOWING COUNTIES:
 CHELAN, DOUGLAS, GRANT, KITTITAS, OKANOGAN, and YAKIMA

Rates Fringes

CARPENTER

CARPENTERS ON CREOSOTE		
MATERIAL.....	\$ 47.02	18.02
CARPENTERS.....	\$ 46.92	18.02
DIVERS TENDER.....	\$ 51.89	18.02
DIVERS.....	\$ 100.78	18.02
MILLWRIGHT AND MACHINE		
ERECTORS.....	\$ 48.42	18.02
PILEDRIIVER, DRIVING, PULLING, CUTTING, PLACING COLLARS, SETTING, WELDING OR CRESOTE TREATED		
MATERIAL, ALL PILING.....	\$ 47.17	18.02

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLWRIGHTS AND PILEDRIIVERS

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

- | | | |
|------------------|--------------|--------------|
| Seattle | Olympia | Bellingham |
| Auburn | Bremerton | Anacortes |
| Renton | Shelton | Yakima |
| Aberdeen-Hoquiam | Tacoma | Wenatchee |
| Ellensburg | Everett | Port Angeles |
| Centralia | Mount Vernon | Sunnyside |

Chelan Pt. Townsend

Zone Pay:

- 0 -25 radius miles Free
- 26-35 radius miles \$1.00/hour
- 36-45 radius miles \$1.15/hour
- 46-55 radius miles \$1.35/hour
- Over 55 radius miles \$1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLWRIGHT AND PILEDRIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:

- 0 -25 radius miles Free
- 26-45 radius miles \$.70/hour
- Over 45 radius miles \$1.50/hour

* ELEC0046-001 02/21/2021

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 66.90	3%+23.66
ELECTRICIAN.....	\$ 60.82	3%+23.66

* ELEC0048-003 01/01/2021

CLARK, KLICKITAT AND SKAMANIA COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 44.22	21.50
ELECTRICIAN.....	\$ 50.35	25.48

HOURLY ZONE PAY:

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Portland, The Dalles, Hood River, Tillamook, Seaside and Astoria

Zone Pay:

Zone 1: 31-50 miles \$1.50/hour

Zone 2: 51-70 miles \$3.50/hour

Zone 3: 71-90 miles \$5.50/hour

Zone 4: Beyond 90 miles \$9.00/hour

*These are not miles driven. Zones are based on Delorme Street Atlas USA 2006 plus.

ELEC0048-029 01/01/2021

COWLITZ AND WAHKIAKUM COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 44.22	21.50
ELECTRICIAN.....	\$ 50.35	25.48

ELEC0073-001 07/01/2020

ADAMS, FERRY, LINCOLN, PEND OREILLE, SPOKANE, STEVENS, WHITMAN COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 34.10	16.68
ELECTRICIAN.....	\$ 37.65	19.68

ELEC0076-002 08/31/2020

GRAYS HARBOR, LEWIS, MASON, PACIFIC, PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 53.15	23.81
ELECTRICIAN.....	\$ 48.32	23.67

ELEC0112-005 06/01/2020

ASOTIN, BENTON, COLUMBIA, FRANKLIN, GARFIELD, KITTITAS, WALLA
WALLA, YAKIMA COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 50.45	22.27
ELECTRICIAN.....	\$ 48.05	22.12

ELEC0191-003 06/01/2020

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 44.23	17.73
ELECTRICIAN.....	\$ 47.95	26.16

ELEC0191-004 06/01/2018

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 40.82	17.63
ELECTRICIAN.....	\$ 42.45	21.34

ENGI0302-003 06/01/2020

CHELAN (WEST OF THE 120TH MERIDIAN), CLALLAM, DOUGLAS (WEST OF
THE 120TH MERIDIAN), GRAYS HARBOR, ISLAND, JEFFERSON, KING,
KITSAP, KITTITAS, MASON, OKANOGAN (WEST OF THE 120TH MERIDIAN),
SAN JUNA, SKAGIT, SNOHOMISH, WHATCOM AND YAKIMA (WEST OF THE
120TH MERIDIAN) COUNTIES

Zone 1 (0-25 radius miles):

	Rates	Fringes
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POWER EQUIPMENT OPERATOR

Group 1A.....	\$ 48.41	22.47
Group 1AA.....	\$ 49.13	22.47
Group 1AAA.....	\$ 49.83	22.47
Group 1.....	\$ 47.70	22.47
Group 2.....	\$ 47.08	22.47
Group 3.....	\$ 46.55	22.47
Group 4.....	\$ 43.54	22.47

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) - \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: Aberdeen, Bellingham, Bremerton, Everett, Kent, Mount Vernon, Port Angeles, Port Townsend, Seattle, Shelton, Wenatchee, Yakima

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom (including jib with attachments); Tower crane over 175 ft in height, base to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead 6 yards to, but not including 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9, HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self propelled 45 yards and over; Slipform pavers; Transporters, all truck or track type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator- Concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-overhead, bridge type-20 tons through 44 tons; Chipper; Concrete Pump-truck mount with boom attachment; Crusher; Deck Engineer/Deck Winches (power); Drilling machine; Excavator, shovel, backhoe-3yards and under; Finishing Machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Horizontal/directional drill operator; Loaders-overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics-all; Mixers-asphalt plant; Motor patrol graders-finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barber Green; Scraper-self propelled, hard tail end dump, articulating off-road equipment-under 45 yards; Subgrade trimmer; Tractors, backhoes-over 75 hp; Transfer material service machine-shuttle buggy, blaw knox-roadtec; Truck crane oiler/driver-100 tons and over; Truck Mount portable conveyor; Yo Yo Pay dozer

GROUP 3 - Conveyors; Cranes-thru 19 tons with attachments; A-frame crane over 10 tons; Drill oilers-auger type, truck or crane mount; Dozers-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loader-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pumps-concrete; Roller, plant mix or multi-lift materials; Saws-concrete; Scrapers-concrete and carry-all; Service engineer-equipment; Trenching machines; Truck Crane Oiler/Driver under 100 tons; Tractors, backhoe 75 hp and under

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete finish machine-laser screed; Cranes-A frame-10 tons and under; Elevator and Manlift-permanent or shaft type; Gradechecker, Stakehop; Forklifts under 3000 lbs. with attachments; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger, mechanical; Power plant; Pumps, water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type;

Shotcrete/gunite equipment operator

HANDLING OF HAZARDOUS WASTE MATERIALS:

Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing

H-2 Class "C" Suit - Base wage rate plus \$.25 per hour.

H-3 Class "B" Suit - Base wage rate plus \$.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$.75 per hour.

ENGI0370-002 07/01/2019

ADAMS, ASOTIN, BENTON, CHELAN (EAST OF THE 120TH MERIDIAN), COLUMBIA, DOUGLAS (EAST OF THE 120TH MERIDIAN), FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN (EAST OF THE 120TH MERIDIAN), PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA (EAST OF THE 120TH MERIDIAN) COUNTIES

ZONE 1:

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 28.46	17.25
GROUP 2.....	\$ 28.78	17.25
GROUP 3.....	\$ 29.39	17.25
GROUP 4.....	\$ 29.55	17.25
GROUP 5.....	\$ 29.71	17.25
GROUP 6.....	\$ 29.99	17.25
GROUP 7.....	\$ 30.26	17.25
GROUP 8.....	\$ 31.36	17.25

ZONE DIFFERENTIAL (Add to Zone 1 rate): Zone 2 - \$2.00

Zone 1: Within 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

Zone 2: Outside 45 mile radius of Spokane, Pasco, Washington; Lewiston, Idaho

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bit Grinders; Bolt Threading Machine; Compressors (under 2000 CFM, gas, diesel, or electric power); Deck Hand; Fireman & Heater Tender; Hydro-seeder, Mulcher, Nozzleman; Oiler Driver, & Cable Tender, Mucking Machine; Pumpman; Rollers, all types on subgrade, including seal and chip coatings (farm type, Case, John Deere & similar, or Compacting Vibrator), except when pulled by Dozer with operable blade; Welding Machine; Crane Oiler-Driver (CLD required) & Cable Tender, Mucking Machine

GROUP 2: A-frame Truck (single drum); Assistant Refrigeration Plant (under 1000 ton); Assistant Plant Operator, Fireman or Pugmixer (asphalt); Bagley or Stationary Scraper; Belt Finishing Machine; Blower Operator (cement); Cement Hog; Compressor (2000 CFM or over, 2 or more, gas diesel or electric power); Concrete Saw (multiple cut); Distributor Leverman; Ditch Witch or similar; Elevator Hoisting Materials; Dope Pots (power agitated); Fork Lift or Lumber Stacker, hydra-lift & similar; Gin Trucks (pipeline); Hoist, single drum; Loaders (bucket elevators and conveyors); Longitudinal Float; Mixer (portable-concrete); Pavement Breaker, Hydra-Hammer & similar; Power Broom; Railroad Ballast Regulation Operator (self-propelled); Railroad Power Tamper Operator (self-propelled); Railroad Tamper Jack Operator (self-propelled); Spray Curing Machine (concrete); Spreader Box (self-propelled); Straddle Buggy (Ross & similar on construction job only); Tractor (Farm type R/T with attachment, except Backhoe); Tugger Operator

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar);

Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

GROUP 4: Concrete Pumps (squeeze-crete, flow-crete, pump-crete, Whitman & similar); Curb Extruder (asphalt or concrete); Drills (churn, core, calyx or diamond); Equipment Serviceman; Greaser & Oiler; Hoist (2 or more drums or Tower Hoist); Loaders (overhead & front-end, under 4 yds. R/T); Refrigeration Plant Engineer (under 1000 ton); Rubber-tired Skidders (R/T with or without attachments); Surface Heater & Plant Machine; Trenching Machines (under 7 ft. depth capacity); Turnhead (with re-screening); Vacuum Drill (reverse circulation drill under 8 inch bit)

GROUP 5: Backhoe (under 45,000 gw); Backhoe & Hoe Ram (under 3/4 yd.); Carrydeck & Boom Truck (under 25 tons); Cranes (25 tons & under), all attachments including clamshell, dragline; Derricks & Stifflegs (under 65 tons); Drilling Equipment (8 inch bit & over) (Robbins, reverse circulation & similar); Hoe Ram; Piledriving Engineers; Paving (dual drum); Railroad Track Liner Operator (self-propelled); Refrigeration Plant Engineer (1000 tons & over); Signalman (Whirleys, Highline Hammerheads or similar); Grade Checker

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers)(Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver;

Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel (under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

GROUP 7: Backhoe (over 110,000 gw); Backhoes & Hoe Ram (3 yds & over); Blade (finish & bluetop) Automatic, CMI, ABC, Finish Athey & Huber & similar when used as automatic; Cableway Operators; Concrete Cleaning/Decontamination machine operator; Cranes (over 45 tons to but not including 85 tons), all attachments including clamshell and dragline; Derricks & Stiffleys (65 tons & over); Elevating Belt (Holland type); Heavy equipment robotics operator; Loader (360 degrees revolving Koehring Scooper or similar); Loaders (overhead & front-end, over 8 yds. to 10 yds.); Rubber-tired Scrapers (multiple engine with three or more scrapers); Shovels (3 yds. & over); Whirleys & Hammerheads, ALL; H.D. Mechanic; H.D. Welder; Hydraulic Platform Trailers (Goldhofer, Shaurerly and Similar); Ultra High Pressure Waterjet Cutting Tool System Operator (30,000 psi); Vacuum Blasting Machine Operator

GROUP 8: Cranes (85 tons and over, and all climbing, overhead, rail and tower), all attachments including clamshell, dragline; Loaders (overhead and front-end, 10 yards and over); Helicopter Pilot

BOOM PAY: (All Cranes, Including Tower)

180 ft to 250 ft \$.50 over scale

Over 250 ft \$.80 over scale

NOTE:

In computing the length of the boom on Tower Cranes, they shall be measured from the base of the Tower to the point of the boom.

HAZMAT:

Anyone working on HAZMAT jobs, working with supplied air shall receive \$1.00 an hour above classification.

ENGI0612-001 06/01/2020

PIERCE County

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A.....	\$ 49.50	22.47
GROUP 1AA.....	\$ 50.22	22.47
GROUP 1AAA.....	\$ 50.94	22.47
GROUP 1.....	\$ 48.77	22.47
GROUP 2.....	\$ 48.15	22.47
GROUP 3.....	\$ 47.60	22.47
GROUP 4.....	\$ 44.55	22.47

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) = \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom (including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom (including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom

(including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor

patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials; Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than \$1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than \$1 million where no building is involved. Surfacing and paving included, but utilities excluded.
3. Marine projects (docks, wharfs, etc.) less than \$150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class ""D"" Suit - Base wage rate plus \$.50 per hour.

H-2 Class ""C"" Suit - Base wage rate plus \$1.00 per hour.

H-3 Class ""B"" Suit - Base wage rate plus \$1.50 per hour.

H-4 Class ""A"" Suit - Base wage rate plus \$2.00 per hour.

ENGI0612-012 06/01/2020

LEWIS, PACIFIC (portion lying north of a parallel line extending west from the northern boundary of Wahkaikum County to the sea) AND THURSTON COUNTIES

ON PROJECTS DESCRIBED IN FOOTNOTE A BELOW, THE RATE FOR EACH GROUP SHALL BE 90% OF THE BASE RATE PLUS FULL FRINGE BENEFITS. ON ALL OTHER WORK, THE FOLLOWING RATES APPLY.

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1A.....	\$ 48.41	22.47
GROUP 1AA.....	\$ 49.13	22.47
GROUP 1AAA.....	\$ 49.83	22.47
GROUP 1.....	\$ 47.70	22.47
GROUP 2.....	\$ 47.08	22.47
GROUP 3.....	\$ 46.55	22.47
GROUP 4.....	\$ 43.54	22.47

Zone Differential (Add to Zone 1 rates):

Zone 2 (26-45 radius miles) = \$1.00

Zone 3 (Over 45 radius miles) - \$1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 AAA - Cranes-over 300 tons or 300 ft of boom
(including jib with attachments)

GROUP 1AA - Cranes- 200 tonsto 300 tons, or 250 ft of boom
(including jib with attachments; Tower crane over 175 ft in height, bas to boom

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom
(including jib with attachments); Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height

base to boom; Loaders-overhead, 8 yards and over; Shovels, excavator, backhoes-6 yards and over with attachments

GROUP 1 - Cableway; Cranes 45 tons thru 99 tons under 150 ft of boom (including jib with attachments); Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator, shovel, backhoes over 3 yards and under 6 yards; Hard tail end dump articulating off-road equipment 45 yards and over; Loader- overhead, 6 yards to, but not including, 8 yards; Mucking machine, mole, tunnel, drill and/or shield; Quad 9 HD 41, D-10; Remote control operator on rubber tired earth moving equipment; Rollagon; Scrapers-self-propelled 45 yards and over; Slipform pavers; Transporters, all track or truck type

GROUP 2 - Barrier machine (zipper); Batch Plant Operator-concrete; Bump Cutter; Cranes, 20 tons thru 44 tons with attachments; Crane-Overhead, bridge type, 20 tons through 44 tons; Chipper; Concrete pump-truck mount with boom attachment; Crusher; Deck engineer/deck winches (power); Drilling machine; Excavator, shovel, backhoe-3 yards and under; Finishing machine, Bidwell, Gamaco and similar equipment; Guardrail punch; Loaders, overhead under 6 yards; Loaders-plant feed; Locomotives-all; Mechanics- all; Mixers, asphalt plant; Motor patrol graders, finishing; Piledriver (other than crane mount); Roto-mill, roto-grinder; Screedman, spreader, topside operator-Blaw Knox, Cedar Rapids, Jaeger, Caterpillar, Barbar Green; Scraper-self- propelled, hard tail end dump, articulating off-road equipment- under 45 yards; Subgrader trimmer; Tractors, backhoe over 75 hp; Transfer material service machine-shuttle buggy, Blaw Knox- Roadtec; Truck Crane oiler/driver-100 tons and over; Truck Mount Portable Conveyor; Yo Yo pay

GROUP 3 - Conveyors; Cranes through 19 tons with attachments; Crane-A-frame over 10 tons; Drill oilers-auger type, truck or crane mount; Dozer-D-9 and under; Forklift-3000 lbs. and over with attachments; Horizontal/directional drill locator; Outside Hoists-(elevators and manlifts), air tuggers, strato tower bucket elevators; Hydralifts/boom trucks over 10 tons; Loaders-elevating type, belt; Motor patrol grader-nonfinishing; Plant oiler- asphalt, crusher; Pump-Concrete; Roller, plant mix or multi-lfit materials;

Saws-concrete; Scrapers, concrete and carry all; Service engineers-equipment; Trenching machines; Truck crane oiler/driver under 100 tons; Tractors, backhoe under 75 hp

GROUP 4 - Assistant Engineer; Bobcat; Brooms; Compressor; Concrete Finish Machine-laser screed; Cranes A-frame 10 tons and under; Elevator and manlift (permanent and shaft type); Forklifts-under 3000 lbs. with attachments; Gradechecker, stakehop; Hydralifts/boom trucks, 10 tons and under; Oil distributors, blower distribution and mulch seeding operator; Pavement breaker; Posthole digger-mechanical; Power plant; Pumps-water; Rigger and Bellman; Roller-other than plant mix; Wheel Tractors, farmall type; Shotcrete/gunite equipment operator

FOOTNOTE A- Reduced rates may be paid on the following:

1. Projects involving work on structures such as buildings and bridges whose total value is less than \$1.5 million excluding mechanical, electrical, and utility portions of the contract.
2. Projects of less than \$1 million where no building is involved. Surfacing and paving included, but utilities excluded.
3. Marine projects (docks, wharfs, etc.) less than \$150,000.

HANDLING OF HAZARDOUS WASTE MATERIALS: Personnel in all craft classifications subject to working inside a federally designated hazardous perimeter shall be eligible for compensation in accordance with the following group schedule relative to the level of hazardous waste as outlined in the specific hazardous waste project site safety plan.

H-1 Base wage rate when on a hazardous waste site when not outfitted with protective clothing, Class "D" Suit - Base wage rate plus \$.50 per hour.

H-2 Class "C" Suit - Base wage rate plus \$1.00 per hour.

H-3 Class "B" Suit - Base wage rate plus \$1.50 per hour.

H-4 Class "A" Suit - Base wage rate plus \$2.00 per hour.

ENGI0701-002 01/01/2018

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

POWER RQUIPMENT OPERATORS: ZONE 1

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 41.65	14.35
GROUP 1A.....	\$ 43.73	14.35
GROUP 1B.....	\$ 45.82	14.35
GROUP 2.....	\$ 39.74	14.35
GROUP 3.....	\$ 38.59	14.35
GROUP 4.....	\$ 37.51	14.35
GROUP 5.....	\$ 36.27	14.35
GROUP 6.....	\$ 33.05	14.35

Zone Differential (add to Zone 1 rates):

Zone 2 - \$3.00

Zone 3 - \$6.00

For the following metropolitan counties: MULTNOMAH; CLACKAMAS; MARION; WASHINGTON; YAMHILL; AND COLUMBIA; CLARK; AND COWLITZ COUNTY, WASHINGTON WITH MODIFICATIONS AS INDICATED:

All jobs or projects located in Multnomah, Clackamas and Marion Counties, West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22 and all jobs or projects located in Yamhill County, Washington County and Columbia County and all jobs or porjects located in Clark & Cowlitz County, Washington except that portion of Cowlitz County in the Mt. St. Helens ""Blast Zone"" shall receive Zone I pay for all classifications.

All jobs or projects located in the area outside the identified boundary above, but less than 50 miles from the Portland City Hall shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the Portland City Hall, but outside the identified border above, shall receive Zone III pay for all classifications.

For the following cities: ALBANY; BEND; COOS BAY; EUGENE; GRANTS PASS; KLAMATH FALLS; MEDFORD; ROSEBURG

All jobs or projects located within 30 miles of the respective city hall of the above mentioned cities shall receive Zone I pay for all classifications.

All jobs or projects located more than 30 miles and less than 50 miles from the respective city hall of the above mentioned cities shall receive Zone II pay for all classifications.

All jobs or projects located more than 50 miles from the respective city hall of the above mentioned cities shall receive Zone III pay for all classifications.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1

Concrete Batch Plan and or Wet mix three (3) units or more;
Crane, Floating one hundred and fifty (150) ton but less than two hundred and fifty (250) ton; Crane, two hundred (200) ton through two hundred ninety nine (299) ton with two hundred foot (200') boom or less (including jib, inserts and/or attachments); Crane, ninety (90) ton through one hundred ninety nine (199) ton with over two hundred (200') boom Including jib, inserts and/or attachments); Crane, Tower Crane with one hundred seventy five foot (175') tower or less and with less than two hundred foot (200') jib; Crane, Whirley ninety (90) ton and over;
Helicopter when used in erecting work

Group 1A

Crane, floating two hundred fifty (250) ton and over; Crane, two hundred (200) ton through two hundred ninety nine (299) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Crane, three hundred (300) ton through three hundred ninety nine (399) ton; Crane, Tower Crane with over one hundred seventy five

foot (175') tower or over two hundred foot (200') jib;
Crane, tower Crane on rail system or 2nd tower or more in
work radius

Group 1B

Crane, three hundred (300) ton through three hundred ninety
nine (399) ton, with over two hundred foot (200') boom
(including jib, inserts and/or attachments); Floating
crane, three hundred fifty (350) ton and over; Crane, four
hundred (400) ton and over

Group 2

Asphalt Plant (any type); Asphalt Roto-Mill, pavement
profiler eight foot (8') lateral cut and over; Auto Grader
or "Trimmer"; Blade, Robotic; Bulldozer, Robotic Equipment
(any type); Bulldozer, over one hundred twenty thousand
(120,000) lbs. and above; Concrete Batch Plant and/or Wet
Mix one (1) and two (2) drum; Concrete Diamond Head
Profiler; Canal Trimmer; Concrete, Automatic Slip Form
Paver (Assistant to the Operator required); Crane, Boom
Truck fifty (50) ton and with over one hundred fifty foot
(150') boom and over; Crane, Floating (derrick barge)
thirty (30) ton but less than one hundred fifty (150) ton;
Crane, Cableway twenty-five (25) ton and over; Crane,
Floating Clamshell three (3) cu. Yds. And over; Crane,
ninety (90) ton through one hundred ninety nine (199) ton
up to and including two hundred foot (200') of boom
(including jib inserts and/or attachments); Crane, fifty
(50) ton through eighty nine (89) ton with over one hundred
fifty foot (150') boom (including jib inserts and/or
attachments); Crane, Whirley under ninety (90) ton; Crusher
Plant; Excavator over one hundred thirty thousand (130,000)
lbs.; Loader one hundred twenty thousand (120,000) lbs. and
above; Remote Controlled Earth Moving Equipment; Shovel,
Dragline, Clamshell, five (5) cu. Yds. And over; Underwater
Equipment remote or otherwise, when used in construction
work; Wheel Excavator any size

Group 3

Bulldozer, over seventy thousand (70,000) lbs. up to and
including one hundred twenty thousand (120,000) lbs.;
Crane, Boom Truck fifty (50) ton and over with less than
one hundred fifty foot (150') boom; Crane, fifty (50) ton

through eighty nine (89) ton with one hundred fifty foot (150') boom or less (including jib inserts and/or attachments); Crane, Shovel, Dragline or Clamshell three (3) cu. yds. but less than five (5) cu. Yds.; Excavator over eighty thousand (80,000) lbs. through one hundred thirty thousand (130,000) lbs.; Loader sixty thousand (60,000) lbs. and less than one hundred twenty thousand (120,000) lbs.

Group 4

Asphalt, Screed; Asphalt Paver; Asphalt Roto-Mill, pavement profiler, under eight foot (8') lateral cut; Asphalt, Material Transfer Vehicle Operator; Back Filling Machine; Backhoe, Robotic, track and wheel type up to and including twenty thousand (20,000) lbs. with any attachments; Blade (any type); Boatman; Boring Machine; Bulldozer over twenty thousand (20,000) lbs. and more than one hundred (100) horse up to seventy thousand (70,000) lbs.; Cable-Plow (any type); Cableway up to twenty five (25) ton; Cat Drill (John Henry); Chippers; Compactor, multi-engine; Compactor, Robotic; Compactor with blade self-propelled; Concrete, Breaker; Concrete, Grout Plant; Concrete, Mixer Mobile; Concrete, Paving Road Mixer; Concrete, Reinforced Tank Banding Machine; Crane, Boom Truck twenty (20) ton and under fifty (50) ton; Crane, Bridge Locomotive, Gantry and Overhead; Crane, Carry Deck; Crane, Chicago Boom and similar types; Crane, Derrick Operator, under one hundred (100) ton; Crane, Floating Clamshell, Dragline, etc. Operator, under three (3) cu. yds. Or less than thirty (30) ton; Crane, under fifty (50) ton; Crane, Quick Tower under one hundred foot (100') in height and less than one hundred fifty foot (150') jib (on rail included); Diesel-Electric Engineer (Plant or Floating); Directional Drill over twenty thousand (20,000) lbs. pullback; Drill Cat Operator; Drill Doctor and/or Bit Grinder; Driller, Percussion, Diamond, Core, Cable, Rotary and similar type; Excavator Operator over twenty thousand (20,000) lbs. through eighty thousand (80,000) lbs.; Generator Operator; Grade-all; Guardrail Machines, i.e. punch, auger, etc.; Hammer Operator (Piledriver); Hoist, stiff leg, guy derrick or similar type, fifty (50) ton and over; Hoist, two (2) drums or more; Hydro Axe (loader mounted or similar type); Jack Operator, Elevating Barges, Barge Operator, self-unloading;

Loader Operator, front end and overhead, twenty five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.; Log Skidders; Piledriver Operator (not crane type); Pipe, Bending, Cleaning, Doping and Wrapping Machines; Rail, Ballast Tamper Multi-Purpose; Rubber-tired Dozers and Pushers; Scraper, all types; Side-Boom; Skip Loader, Drag Box; Strump Grinder (loader mounted or similar type); Surface Heater and Planer; Tractor, rubber-tired, over fifty (50) HP Flywheel; Trenching Machine three foot (3') depth and deeper; Tub Grinder (used for wood debris); Tunnel Boring Machine Mechanic; Tunnel, Mucking Machine; Ultra High Pressure Water Jet Cutting Tool System Operator; Vacuum Blasting Machine Operator; Water pulls, Water wagons

Group 5

Asphalt, Extrusion Machine; Asphalt, Roller (any asphalt mix); Asphalt, Roto-Mill pavement profiler ground man; Bulldozer, twenty thousand (20,000) lbs. or less, or one hundred (100) horse or less; Cement Pump; Chip Spreading Machine; Churn Drill and Earth Boring Machine; Compactor, self-propelled without blade; Compressor, (any power) one thousand two hundred fifty (1,250) cu. ft. and over, total capacity; Concrete, Batch Plant Quality control; Concrete, Combination Mixer and compressor operator, gunite work; Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter; Concrete, Finishing Machine; Concrete, Grouting Machine; Concrete, Internal Full Slab Vibrator Operator; Concrete, Joint Machine; Concrete, Mixer single drum, any capacity; Concrete, Paving Machine eight foot (8') or less; Concrete, Planer; Concrete, Pump; Concrete, Pump Truck; Concrete, Pumpcrete Operator (any type); Concrete, Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Conveyored Material Hauler; Crane, Boom Truck under twenty (20) tons; Crane, Boom Type lifting device, five (5) ton capacity or less; Drill, Directional type less than twenty thousand (20,000) lbs. pullback; Fork Lift, over ten (10) ton or Robotic; Helicopter Hoist; Hoist Operator, single drum; Hydraulic Backhoe track type up to and including twenty thousand (20,000) lbs.; Hydraulic Backhoe wheel type (any make); Laser Screed; Loaders, rubber-tired type, less than twenty five thousand (25,000) lbs.; Pavement Grinder and/or Grooving Machine (riding type); Pipe, cast in place Pipe Laying Machine; Pulva-Mixer

or similar types; Pump Operator, more than five (5) pumps (any size); Rail, Ballast Compactor, Regulator, or Tamper machines; Service Oiler (Greaser); Sweeper Self-Propelled; Tractor, Rubber-Tired, fifty (50) HP flywheel and under; Trenching Machine Operator, maximum digging capacity three foot (3') depth; Tunnel, Locomotive, Dinkey; Tunnel, Power Jumbo setting slip forms, etc.

Group 6

Asphalt, Pugmill (any type); Asphalt, Raker; Asphalt, Truck Mounted Asphalt Spreader, with Screed; Auger Oiler; Boatman; Bobcat, skid steer (less than one (1) yard); Broom, self-propelled; Compressor Operator (any power) under 1,250 cu. ft. total capacity; Concrete Curing Machine (riding type); Concrete Saw; Conveyor Operator or Assistant; Crane, Tugger; Crusher Feederman; Crusher Oiler; Deckhand; Drill, Directional Locator; Fork Lift; Grade Checker; Guardrail Punch Oiler; Hydrographic Seeder Machine, straw, pulp or seed; Hydrostatic Pump Operator; Mixer Box (CTB, dry batch, etc.); Oiler; Plant Oiler; Pump (any power); Rail, Brakeman, Switchman, Motorman; Rail, Tamping Machine, mechanical, self-propelled; Rigger; Roller grading (not asphalt); Truck, Crane Oiler-Driver

 IRON0014-005 07/01/2020

ADAMS, ASOTIN, BENTON, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT, LINCOLN, OKANOGAN, PEND ORIELLE, SPOKANE, STEVENS, WALLA WALLA AND WHITMAN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 34.59	30.10

 IRON0029-002 07/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKAIKUM COUNTIES

	Rates	Fringes
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IRONWORKER.....\$ 39.10 29.75

IRON0086-002 07/01/2020

YAKIMA, KITTITAS AND CHELAN COUNTIES

Rates Fringes

IRONWORKER.....\$ 34.59 30.10

IRON0086-004 07/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS,
MASON, PIERCE, SKAGIT, SNOHOMISH, THURSTON, AND WHATCOM COUNTIES

Rates Fringes

IRONWORKER.....\$ 43.95 31.00

LABO0238-004 06/01/2020

PASCO AREA: ADAMS, BENTON, COLUMBIA, DOUGLAS (East of 120th
Meridian), FERRY, FRANKLIN, GRANT, OKANOGAN, WALLA WALLA

SPOKANE AREA: ASOTIN, GARFIELD, LINCOLN, PEND OREILLE, SPOKANE,
STEVENS & WHITMAN COUNTIES

Rates Fringes

LABORER (PASCO)

GROUP 1.....\$ 26.69 13.65
GROUP 2.....\$ 28.79 13.65
GROUP 3.....\$ 29.06 13.65
GROUP 4.....\$ 29.33 13.65
GROUP 5.....\$ 29.61 13.65

LABORER (SPOKANE)

GROUP 1.....\$ 26.69 13.65
GROUP 2.....\$ 28.79 13.65
GROUP 3.....\$ 29.06 13.65
GROUP 4.....\$ 29.33 13.65
GROUP 5.....\$ 29.61 13.65

Zone Differential (Add to Zone 1 rate): \$2.00

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: 45 radius miles and over from the main post office.

LABORERS CLASSIFICATIONS

GROUP 1: Flagman; Landscape Laborer; Scaleman; Traffic Control Maintenance Laborer (to include erection and maintenance of barricades, signs and relief of flagperson); Window Washer/Cleaner (detail cleanup, such as, but not limited to cleaning floors, ceilings, walls, windows, etc. prior to final acceptance by the owner)

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezecrete or similar machine, 6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class "A" (to include all bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

GROUP 3: Asphalt Roller, walking; Cement Finisher Tender; Concrete Saw, walking; Demolition Torch; Dope Pot Firemen, non-mechanical; Driller Tender (when required to move and position machine); Form Setter, Paving; Grade Checker using level; Hazardous Waste Worker, Level C (uses a chemical "splash suit" and air purifying respirator); Jackhammer Operator; Miner, Class "B" (to include brakeman, finisher, vibrator, form setter); Nozzleman (to include squeeze and flo-crete nozzle); Nozzleman, water, air or steam; Pavement Breaker (under 90 lbs.); Pipelayer, corrugated metal culvert; Pipelayer, multi-plate; Pot Tender; Power Buggy Operator; Power Tool Operator, gas, electric, pneumatic; Railroad Equipment, power driven, except dual mobile power spiker or puller; Railroad Power Spiker or Puller, dual mobile; Rodder and Spreader; Tamper (to include operation of Barco, Essex and similar tampers); Trencher, Shawnee; Tugger Operator; Wagon Drills; Water Pipe Liner; Wheelbarrow (power driven)

GROUP 4: Air and Hydraulic Track Drill; Asphalt Raker; Brush Machine (to include horizontal construction joint cleanup brush machine, power propelled); Caisson Worker, free air; Chain Saw Operator and Faller; Concrete Stack (to include laborers when laborers working on free standing concrete stacks for smoke or fume control above 40 feet high); Guniting (to include operation of machine and nozzle); Hazardous Waste Worker, Level B (uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Laser Beam Operator (to include grade checker and elevation control); Miner, Class C (to include miner, nozzleman for concrete, laser beam operator and rigger on tunnels); Monitor Operator (air track or similar mounting); Mortar Mixer; Nozzleman (to include jet blasting nozzleman, over 1,200 lbs., jet blast machine power propelled, sandblast nozzle); Pavement Breaker (90 lbs. and over); Pipelayer (to include working topman, caulker, collarman, jointer, mortarman, rigger, jacker, shorer, valve or meter installer); Pipewrapper; Plasterer Tender; Vibrators (all)

GROUP 5 - Drills with Dual Masts; Hazardous Waste Worker, Level A (utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line); Miner Class "D", (to include raise and shaft miner, laser

beam operator on riases and shafts)

LABO0238-006 06/01/2019

COUNTIES EAST OF THE 120TH MERIDIAN: ADAMS, ASOTIN, BENTON,
CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT,
LINCOLN, OKANOGAN, PEND OREILLE, STEVENS, SPOKANE, WALLA WALLA,
WHITMAN

	Rates	Fringes
Hod Carrier.....	\$ 27.95	12.90

LABO0242-003 06/01/2020

KING COUNTY

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 27.78	12.35
GROUP 2A.....	\$ 31.82	12.35
GROUP 3.....	\$ 39.81	12.35
GROUP 4.....	\$ 40.77	12.35
GROUP 5.....	\$ 41.43	12.35
Group 6.....	\$ 41.43	12.35

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall

ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2A: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, airtrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is

provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and gas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

Group 6: Miner

LABO0252-010 06/01/2020

CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC (EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES

Rates Fringes

LABORER

GROUP 1.....	\$ 27.78	12.44
GROUP 2.....	\$ 31.82	12.44
GROUP 3.....	\$ 39.81	12.44
GROUP 4.....	\$ 40.77	12.44
GROUP 5.....	\$ 41.43	12.44

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall

ZONE 2 - More than 25 but less than 45 radius miles from the

respective city hall

ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall

ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Groutmen (pressure including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Grade Checker and Transit Person; High Scaler; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0292-008 06/01/2020

ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 27.78	12.44
GROUP 2.....	\$ 31.82	12.44
GROUP 3.....	\$ 39.81	12.44
GROUP 4.....	\$ 40.77	12.44
GROUP 5.....	\$ 41.43	12.44

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective city hall

ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall

ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall

ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material

Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, airtrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and gas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0335-001 06/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

Rates Fringes

Laborers:

 ZONE 1:

 GROUP 1.....\$ 34.93 12.44

GROUP 2.....	\$ 35.65	12.44
GROUP 3.....	\$ 36.20	12.44
GROUP 4.....	\$ 36.66	12.44
GROUP 5.....	\$ 31.93	12.44
GROUP 6.....	\$ 29.01	12.44
GROUP 7.....	\$ 25.14	12.44

Zone Differential (Add to Zone 1 rates):

Zone 2 \$ 0.65

Zone 3 - 1.15

Zone 4 - 1.70

Zone 5 - 2.75

BASE POINTS: LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Plant Laborers; Asphalt Spreaders; Batch Weighman; Broomers; Brush Burners and Cutters; Car and Truck Loaders; Carpenter Tender; Change-House Man or Dry Shack Man; Choker Setter; Clean-up Laborers; Curing, Concrete; Demolition, Wrecking and Moving Laborers; Dumpers, road oiling crew; Dumpmen (for grading crew); Elevator Feeders; Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job

site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunitite Nozzleman Tender; Gunitite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunitite Nozzleman; High Scalars, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-019 06/01/2020

	Rates	Fringes
Hod Carrier.....	\$ 34.93	12.44

LABO0348-003 06/01/2020

CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA
COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 23.68	12.44
GROUP 2.....	\$ 27.17	12.44
GROUP 3.....	\$ 29.74	12.44
GROUP 4.....	\$ 30.46	12.44
GROUP 5.....	\$ 30.99	12.44

BASE POINTS: BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT,
TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT.
TOWNSEND, PT. ANGELES, AND BREMERTON

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall

ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$1.00

ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall

ZONE 2 - More than 25 radius miles from the respective city

hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):

ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, airtrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water

blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and gas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

 PAIN0005-002 07/01/2020

STATEWIDE EXCEPT CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS.....	\$ 31.90	17.23

 PAIN0005-004 03/01/2009

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

	Rates	Fringes
PAINTER.....	\$ 20.82	7.44

 * PAIN0005-006 07/01/2018

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE); CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

Rates Fringes

PAINTER

Application of Cold Tar Products, Epoxies, Polyurethanes, Acids, Radiation Resistant Material, Water and Sandblasting.....	\$ 30.19	11.71
Over 30'/Swing Stage Work..	\$ 22.20	7.98
Brush, Roller, Striping, Steam-cleaning and Spray....	\$ 22.94	11.61
Lead Abatement, Asbestos Abatement.....	\$ 21.50	7.98

*\$.70 shall be paid over and above the basic wage rates listed for work on swing stages and high work of over 30 feet.

PAIN0055-003 07/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC, SKAMANIA, AND WAHKIAKUM COUNTIES

Rates Fringes

PAINTER

Brush & Roller.....	\$ 26.56	13.40
Spray and Sandblasting.....	\$ 26.56	13.40

All high work over 60 ft. = base rate + \$0.75

PAIN0055-006 03/01/2020

CLARK, COWLITZ, KLICKITAT, SKAMANIA and WAHKIAKUM COUNTIES

Rates Fringes

Painters:

HIGHWAY & PARKING LOT STRIPER.....	\$ 35.87	13.40
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PLAS0072-004 06/01/2020

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY,
FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND
OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA
COUNTIES

Rates Fringes

CEMENT MASON/CONCRETE FINISHER
ZONE 1.....\$ 31.30 15.53

Zone Differential (Add to Zone 1 rate): Zone 2 - \$2.00

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee
Zone 1: 0 - 45 radius miles from the main post office
Zone 2: Over 45 radius miles from the main post office

PLAS0528-001 06/01/2020

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING,
KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT,
SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

Rates Fringes

CEMENT MASON
CEMENT MASON.....\$ 45.80 18.54
COMPOSITION, TROWEL
MACHINE, GRINDER, POWER
TOOLS, GUNNITE NOZZLE.....\$ 46.30 18.54
TROWELING MACHINE OPERATOR
ON COMPOSITION.....\$ 46.30 18.54

PLAS0555-002 07/01/2019

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

Rates Fringes

CEMENT MASON

CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD..\$ 37.32	18.77
CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD.....\$ 36.58	18.77
CEMENT MASONS.....\$ 35.85	18.77
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS...\$ 36.58	18.77

Zone Differential (Add To Zone 1 Rates):

- Zone 2 - \$0.65
- Zone 3 - 1.15
- Zone 4 - 1.70
- Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND,
SALEM, THE DALLES, VANCOUVER

- ZONE 1: Projects within 30 miles of the respective city hall
- ZONE 2: More than 30 miles but less than 40 miles from the
respective city hall.
- ZONE 3: More than 40 miles but less than 50 miles from the
respective city hall.
- ZONE 4: More than 50 miles but less than 80 miles from the
respective city hall.
- ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC (South of a straight line
made by extending the north boundary line of Wahkiakum County
west to the Pacific Ocean), SKAMANIA, AND WAHAKIUM COUNTIES

Rates Fringes

Truck drivers:

ZONE 1 GROUP 1.....\$ 29.33	16.40
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GROUP 2.....	\$ 29.46	16.40
GROUP 3.....	\$ 29.60	16.40
GROUP 4.....	\$ 29.89	16.40
GROUP 5.....	\$ 30.03	16.40
GROUP 6.....	\$ 30.31	16.40
GROUP 7.....	\$ 30.53	16.40

Zone Differential (Add to Zone 1 Rates):

Zone 2 - \$0.65

Zone 3 - 1.15

Zone 4 - 1.70

Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lift truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman,

Wash Rack, Steam Cleaner or combinations; Team Driver;
Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane;
Challenger; Dumpsters or similar equipment all sizes; Dump
Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader
Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer
or doubles transporting equipment or wet or dry materials;
Lumber Carrier, Driver-Straddle Carrier (used in loading,
unloading and transporting of materials on job site); Oil
Distributor Driver or Leverman; Transit mix and wet or dry
mix trucks: over 5 cu. yds. and including 7 cu. yds.;
Vacuum Trucks; Water truck/Wagons (rated capacity) over
3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks,
side, end and bottom dumps, including Semi Trucks and
Trains or combinations thereof: over 10 cu. yds. and
including 30 cu. yds. includes Articulated Dump Trucks;
Self-Propelled Street Sweeper; Transit mix and wet or dry
mix truck: over 7 cu yds. and including 11 cu yds.; Truck
Mechanic-Welder-Body Repairman; Utility and Clean-up Truck;
Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom
dumps, including Semi-Trucks and Trains or combinations
thereof: over 30 cu. yds. and including 50 cu. yds.
includes Articulated Dump Trucks; Fire Guard; Transit Mix
and Wet or Dry Mix Trucks, over 11 cu. yds. and including
15 cu. yds.; Water Wagon (rated capacity) over 10,000
gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and
bottom dumps, including Semi Trucks and Trains or
combinations thereof: over 50 cu. yds. and including 60 cu.
yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch
concrete Mix Trucks; Dump trucks, side, end and bottom
dumps, including Semi Trucks and Trains of combinations
thereof: over 60 cu. yds. and including 80 cu. yds., and
includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including

Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

 * TEAM0174-001 06/01/2020

CLALLAM, GRAYS HARBOR, ISLAND, JEFFERSON, KING, KITSAP, LEWIS, MASON, PACIFIC (North of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), PIERCE, SAN JUAN, SKAGIT, SNOHOMISH, THURSTON AND WHATCOM COUNTIES

Rates Fringes

Truck drivers:

ZONE A:

GROUP 1:.....	\$ 42.88	20.92
GROUP 2:.....	\$ 42.04	20.92
GROUP 3:.....	\$ 39.23	20.92
GROUP 4:.....	\$ 34.26	20.92
GROUP 5:.....	\$ 42.43	20.92

ZONE B (25-45 miles from center of listed cities*): Add \$.70 per hour to Zone A rates.

ZONE C (over 45 miles from centr of listed cities*): Add \$1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM CENTRALIA RAYMOND OLYMPIA
 EVERETT SHELTON ANACORTES BELLEVUE
 SEATTLE PORT ANGELES MT. VERNON KENT
 TACOMA PORT TOWNSEND ABERDEEN BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - "A-frame or Hydralift" trucks and Boom trucks or similar equipment when "A" frame or "Hydralift" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series,

Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards \$.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired)(when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by \$2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is

required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C: +\$.25 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B: +\$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."

LEVEL A: +\$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0690-004 01/01/2019

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY, FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA COUNTIES

Rates Fringes

Truck drivers: (AREA 1: SPOKANE ZONE CENTER: Adams, Chelan, Douglas, Ferry, Grant, Kittitas, Lincoln, Okanogan, Pen Oreille, Spokane, Stevens, and Whitman Counties

AREA 1: LEWISTON ZONE CENTER: Asotin, Columbia, and Garfield Counties

AREA 2: PASCO ZONE CENTER: Benton, Franklin, Walla Walla and Yakima Counties)

AREA 1:	
GROUP 1.....	\$ 23.91 17.40
GROUP 2.....	\$ 26.18 17.40
GROUP 3.....	\$ 26.68 17.40
GROUP 4.....	\$ 27.01 17.40
GROUP 5.....	\$ 27.12 17.40
GROUP 6.....	\$ 27.29 17.40

GROUP 7.....	\$ 27.82	17.40
GROUP 8.....	\$ 28.18	17.40
AREA 2:		
GROUP 1.....	\$ 26.05	17.40
GROUP 2.....	\$ 28.69	17.40
GROUP 3.....	\$ 28.80	17.40
GROUP 4.....	\$ 29.13	17.40
GROUP 5.....	\$ 29.24	17.40
GROUP 6.....	\$ 29.24	17.40
GROUP 7.....	\$ 29.78	17.40
GROUP 8.....	\$ 30.10	17.40

Zone Differential (Add to Zone 1 rate: Zone 1 + \$2.00)

BASE POINTS: Spokane, Pasco, Lewiston

Zone 1: 0-45 radius miles from the main post office.

Zone 2: Outside 45 radius miles from the main post office

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraulic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6

yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self-loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi-end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable operated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

Footnote A - Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:

LEVEL C-D: - \$.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

LEVEL A-B: - \$1.00 PER HOUR (Uses supplied air in conjunction

with a chemical splash suit or fully encapsulated suit with a self-contained breathing apparatus.

Employees shall be paid Hazmat pay in increments of four(4) and eight(8) hours.

NOTE:

Trucks Pulling Equipment Trailers: shall receive \$.15/hour over applicable truck rate

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

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

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion

date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Project information.
- 2. Work covered by Contract Documents.
- 3. Work by Owner.
- 4. Purchase contracts.
- 5. Owner-furnished products.
- 6. Contractor-furnished, Owner-installed products.
- 7. Access to site.
- 8. Coordination with occupants.
- 9. Work restrictions.
- 10. Specification and drawing conventions.
- 11. Miscellaneous provisions.

- B. Related Requirements:

- 1. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: City Line Stations 13, 15, 17 – Riverside Ave

- 1. Project Location: Spokane, WA.

- B. Agency: Spokane Transit Authority.

- 1. Owner's Representative: Rob Bielaski

- C. Engineer: Coffman Engineers, 10 N. Post Street, Suite 500, Spokane, WA 99201.

- D. Construction Management: Hill International, 818 W. Riverside Avenue, Suite 400, Spokane, WA 99201

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Station Platform, concrete bus pad, asphalt pavement patching, City Line station amenities footings, lighting, and electrical conduit improvements, re-striping to City Line Stations 13, 15, & 17 along westbound Riverside Avenue.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.5 AGENCY-FURNISHED PRODUCTS

- A. Agency will furnish products indicated. The Work includes pick up at specified location, loading, unloading, handling, storing, protecting, and installing Agency-furnished products.
- B. Agency-Furnished Products:
 - 1. None

1.6 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Adjacent Public Streets: Contractor shall maintain travel along the adjacent streets at all times. The Contractor is responsible for appropriate traffic control and flaggers, per City and MUTCD standards, to temporarily reduce streets to one lane and one bus boarding and alighting lane for construction methods.
- C. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to areas indicated in the drawings.
 - 2. Keep through alley and/or driveway access open for deliveries and public access.

1.7 COORDINATION WITH OCCUPANTS

- A. Partial Agency Occupancy: Cooperate with Agency during construction operations to minimize conflicts and facilitate Agency usage. Perform the Work so as not to interfere with Agency's operations.
 - 1. Maintain access to existing walkways, parking and driveways. Do not close or obstruct walkways without written permission from Agency and authorities having jurisdiction.
 - 2. Provide not less than 72 hours' notice to Agency of activities that will affect Owner's operations.

1.8 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work to normal business working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise allowed or restricted by City of Spokane.
 - 1. Weekend Hours: Limit work to normal business working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, except as otherwise allowed or restricted by City of Spokane.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than ten days in advance of proposed utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to neighboring businesses and traffic operation.
 - 1. Notify Owner not less than ten days in advance of proposed disruptive operations.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowance. Allowances have been established to track actual time and materials. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Time and Material allowance.

1.3 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and costs for the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 COORDINATION

- A. Coordinate allowance items with other portions of the Work.

1.5 TIME AND MATERIAL ALLOWANCES

- A. Contractor's overhead, profit, and related costs for allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs. See 007200.1 Public works General Conditions, Part 7 for additional information.

- B. At Project closeout, credit unused amounts remaining in the allowance to Owner by Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1 Contractor Quality Control Plan (CQCP) Development and Implementation Allowance: Include an allowance of \$150,000.
 - 1. This allowance includes time and material costs to develop, obtain approval of, and implementation of the CQCP for the duration of the project.

END OF SECTION 012100

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Sections include the following:
 - 1. Division 01 Section "Summary" for limitations on utility interruptions and other work restrictions.
 - 2. Division 01 Section "Execution" for progress cleaning requirements.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Engineer, occupants of Project, testing agencies, and authorities having jurisdiction.

1.4 SUBMITTALS

- A. Site Plan: Show temporary facilities and parking areas for construction personnel.

1.5 QUALITY ASSURANCE

- A. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Pavement: Comply with Construction Documents.
- B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 9-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide concrete bases for supporting posts.

2.2 TEMPORARY FACILITIES – NOT USED

2.3 EQUIPMENT – NOT USED

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
 - 3. Maintain traffic along adjacent streets. Traffic control and flaggers shall be provided for temporary one lane closure to install proposed improvements. Traffic control shall adhere to City of Spokane standards.
- C. Parking: Use designated public parking areas for construction personnel.
- D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- E. Project Identification and Temporary Signs: Provide Project identification and other signs as indicated on Drawings. Install signs where indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
 - 1. Provide temporary, directional signs for construction personnel and visitors.
 - 2. Maintain and touchup signs so they are legible at all times.
- F. Waste Disposal Facilities: Comply with local codes and ordinances.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Division 01 Section "Summary."
- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction and the construction documents.
 - 1. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- C. Stormwater Control: Comply with authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

- E. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

END OF SECTION 015000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection of installed construction.
 - 8. Correction of the Work.

1.3 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 construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
 - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.

3. Products: List products to be used for patching and firms or entities that will perform patching work.
 4. Dates: Indicate when cutting and patching will be performed.
- D. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with requirements in Division 01 sustainable design requirements Section.
- B. In-Place Materials: Use materials for patching 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 provide a match acceptable to Engineer for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Engineer according to requirements in Division 01 Section "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Engineer when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.

3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Engineer before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, 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. Protection: 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.

3.7 OWNER-INSTALLED PRODUCTS – NOT USED

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.

2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- D. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Division 01 Section "Construction Waste Management and Disposal."
- E. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- F. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- G. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- C. Coordinate with factory-authorized representative for commissioning of restroom facility.

3.10 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

END OF SECTION 017300

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Demolition and removal of selected site elements.
- B. Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
- C. Related Sections include the following:
 - 1. Division 31 Section "Site Clearing" for site clearing and removal of above- and below-grade improvements.

1.3 DEFINITIONS

- A. Demolish: Completely remove and legally dispose of off-site.
- B. Recycle: Recovery of demolition waste for subsequent processing in preparation for reuse.
- C. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- D. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- E. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- F. Existing to Remain: Existing facilities, utilities, or other improvements to be protected and that are not otherwise indicated to be recycled, removed, removed and salvaged, or removed and reinstalled.

- G. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.
- H. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.
- I. Agency: Spokane Transit Authority (STA)

1.4 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.
 - 1. Coordinate with Owner, who will establish procedures for removal and salvage.

1.5 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI A10.6 and NFPA 241.
- D. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- E. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- F. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.6 PROJECT CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

- C. Hazardous Materials: It is unknown whether hazardous materials will be encountered in the Work.
 - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Agency. Owner will remove hazardous materials under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.7 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory Soils: Comply with requirements in Division 31 Section “Earth Moving”.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting demolition operations.
- B. Field verify existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. If unanticipated elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
- F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and systems serving areas to be selectively demolished.
 - 1. Arrange to shut off indicated utilities with utility companies.
 - 2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building and existing facilities.
 - 3. Cut off pipe or conduit to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to existing construction to remain.
 - 3. Protect existing facilities, utilities, and other improvements that are to remain or that are exposed during selective demolition operations.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.

2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 4. Concrete or Asphalt: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 5. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations. Fire watch duration shall conform with regulations of the governing fire department.
 6. Maintain adequate ventilation when using cutting torches.
 7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 10. Dispose of demolished items and materials promptly.
 11. Proceed with patching after construction operations requiring cutting are complete.
- B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Engineer, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.
- C. 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. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. 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.
 - a. Restore damaged pipe covering to its original condition.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Agency's or Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01 Specification Sections and Division 00 STA Project Description and Scope of Work, apply to this Section. In the event of a conflict between information in this section and Division 00, the information provided in Division 00 governs.

1.2 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume; materials subject to compliance with requirements.
- B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
 - 1. Do not add water to concrete mix on site.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Cementitious materials.
 - 2. Admixtures.
 - 3. Form materials and form-release agents.
 - 4. Steel reinforcement and accessories.
 - 5. Curing compounds.

6. Floor and slab treatments.
 7. Bonding agents.
 8. Adhesives.
 9. Vapor retarders.
 10. Semirigid joint filler.
 11. Joint-filler strips.
 12. Repair materials.
- C. Floor surface flatness and levelness measurements indicating compliance with specified tolerances.
- D. Field quality-control reports.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs on Project personnel qualified as ACI-certified Flatwork Technician and Finisher and a supervisor who is an ACI-certified Concrete Flatwork Technician.
- B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- C. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
 2. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician, Grade I. Testing agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician, Grade II.

1.7 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on concrete mixtures.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

1.9 FIELD CONDITIONS

- A. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When average high and low temperature is expected to fall below 40 deg F (4.4 deg C) for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301 (ACI 301M).
 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- B. Hot-Weather Placement: Comply with ACI 301 (ACI 301M) and ACI 305.1 (ACI 305.1M), and as follows:
1. Maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

- A. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
1. ACI 301 (ACI 301M).
 2. ACI 117 (ACI 117M).

2.2 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
1. Plywood, metal, or other approved panel materials.

2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:
 - a. High-density overlay, Class 1 or better.
 - b. Medium-density overlay, Class 1 or better; mill-release agent treated and edge sealed.
 - c. Structural 1, B-B or better; mill oiled and edge sealed.
 - d. B-B (Concrete Form), Class 1 or better; mill oiled and edge sealed.
 3. Overlaid Finnish birch plywood.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Forms for Cylindrical Columns, Pedestals, and Supports: Metal, glass-fiber-reinforced plastic, paper, or fiber tubes that produce surfaces with gradual or abrupt irregularities not exceeding specified formwork surface class. Provide units with sufficient wall thickness to resist plastic concrete loads without detrimental deformation.
- D. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.
- E. Rustication Strips: Wood, metal, PVC, or rubber strips, kerfed for ease of form removal.
- F. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.
1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
- G. Form Ties: Factory-fabricated, removable or snap-off glass-fiber-reinforced plastic or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
1. Furnish units that leave no corrodible metal closer than 1 inch (25 mm) to the plane of exposed concrete surface.
 2. Furnish ties that, when removed, leave holes no larger than 1 inch (25 mm) in diameter in concrete surface.
 3. Furnish ties with integral water-barrier plates to walls indicated to receive dampproofing or waterproofing.
- 2.3 STEEL REINFORCEMENT
- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
 - B. Deformed-Steel Welded-Wire Reinforcement: ASTM A 1064/A 1064M, flat sheet.
- 2.4 REINFORCEMENT ACCESSORIES
- A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), plain-steel bars, cut true to length with ends square and free of burrs.

- B. Epoxy-Coated Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), plain-steel bars, ASTM A 775/A 775M epoxy coated.
- C. Zinc Repair Material: ASTM A 780/A 780M.
- D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
 - 1. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.
 - 2. For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer-coated wire bar supports.
 - 3. For zinc-coated reinforcement, use galvanized wire or dielectric-polymer-coated wire bar supports.

2.5 CONCRETE MATERIALS

- A. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.
- B. Cementitious Materials:
 - 1. Portland Cement: ASTM C 150/C 150M, Type II gray
 - 2. Fly Ash: ASTM C 618, Class F.
 - 3. Slag Cement: ASTM C 989/C 989M, Grade 100 or 120.
 - 4. Blended Hydraulic Cement: ASTM C 595/C 595M, Type IS, portland blast-furnace slag cement.
 - 5. Silica Fume: ASTM C 1240, amorphous silica.
- C. Normal-Weight Aggregates: ASTM C 33/C 33M, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.
 - 1. Maximum Coarse-Aggregate Size: 1 inch (25 mm) nominal unless noted otherwise.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- D. Air-Entraining Admixture: ASTM C 260/C 260M.
- E. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
 - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
 - 6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

- F. Set-Accelerating Corrosion-Inhibiting Admixture: Commercially formulated, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete and complying with ASTM C 494/C 494M, Type C.
- G. Non-Set-Accelerating Corrosion-Inhibiting Admixture: Commercially formulated, non-set-accelerating, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete.
- H. Water: ASTM C 94/C 94M.

2.6 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BASF Corp. - Construction Chemicals.
 - b. Bon Tool Co.
 - c. Brickform; a division of Solomon Colors.
 - d. ChemMasters, Inc.
 - e. Dayton Superior.
 - f. Euclid Chemical Company (The); an RPM company.
 - g. Kaufman Products, Inc.
 - h. L&M Construction Chemicals, Inc.
 - i. Lambert Corporation.
 - j. Metalcrete Industries.
 - k. Nox-Crete Products Group.
 - l. Sika Corporation.
 - m. SpecChem, LLC.
 - n. TK Products.
 - o. Vexcon Chemicals Inc.
 - p. W.R. Meadows, Inc.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anti-Hydro International, Inc.

- b. BASF Corp. - Construction Chemicals.
- c. ChemMasters, Inc.
- d. Dayton Superior.
- e. Euclid Chemical Company (The); an RPM company.
- f. Kaufman Products, Inc.
- g. L&M Construction Chemicals, Inc.
- h. Lambert Corporation.
- i. Nox-Crete Products Group.
- j. Right Pointe.
- k. SpecChem, LLC.
- l. TK Products.
- m. Vexcon Chemicals Inc.
- n. W.R. Meadows, Inc.

2.7 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.
- B. Bonding Agent: ASTM C 1059/C 1059M, Type II, nonredispersible, acrylic emulsion or styrene butadiene.
- C. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:
 - 1. Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

2.8 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch (3.2 mm) and that can be feathered at edges to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C 150/C 150M, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 - 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 - 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch (3.2 to 6 mm) or coarse sand as recommended by underlayment manufacturer.
 - 4. Compressive Strength: Not less than 4100 psi (29 MPa) at 28 days when tested according to ASTM C 109/C 109M.
- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4 inch (6.4 mm) and that can be filled in over a scarified surface to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C 150/C 150M, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.

2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch (3.2 to 6 mm) or coarse sand as recommended by topping manufacturer.
4. Compressive Strength: Not less than 5000 psi (34.5 MPa) at 28 days when tested according to ASTM C 109/C 109M.

2.9 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301 (ACI 301M).
 1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
 1. Fly Ash: 25 percent.
 2. Combined Fly Ash and Pozzolan: 25 percent.
 3. Slag Cement: 50 percent.
 4. Combined Fly Ash or Pozzolan and Slag Cement: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
 5. Silica Fume: 10 percent.
 6. Combined Fly Ash, Pozzolans, and Silica Fume: 35 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
 7. Combined Fly Ash or Pozzolans, Slag Cement, and Silica Fume: 50 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
- C. Admixtures: Use admixtures according to manufacturer's written instructions.
 1. Use water-reducing high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
 2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
 3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a w/c ratio below 0.50.
 4. Use corrosion-inhibiting admixture in concrete mixtures where indicated.
- D. Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.

2.10 CONCRETE MIXTURES FOR PLATFORM ELEMENTS

- A. Footings: Normal-weight concrete.
 1. Minimum Compressive Strength: See General Structural Notes.
 2. Maximum W/C Ratio: See General Structural Notes.

3. Slump Limit: See General Structural Notes.
4. Air Content: See General Structural Notes.

B. Slabs-on-Grade: Normal-weight concrete.

1. Minimum Compressive Strength: See General Structural Notes.
2. Maximum W/C Ratio: See General Structural Notes.
3. Slump Limit: See General Structural Notes.
4. Air Content: See General Structural Notes.

2.11 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.12 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.

1. For mixer capacity of 1 cu. yd. (0.76 cu. m) or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
2. For mixer capacity larger than 1 cu. yd. (0.76 cu. m), increase mixing time by 15 seconds for each additional 1 cu. yd. (0.76 cu. m).
3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixture time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.1 FORMWORK INSTALLATION

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301 (ACI 301M), to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117 (ACI 117M).

- C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:
 - 1. ¼ inch for smooth-formed finished surfaces.
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Construct forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 1. Install keyways, reglets, recesses, and the like, for easy removal.
 - 2. Do not use rust-stained steel form-facing material.
- F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.
- G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- H. Chamfer exterior corners and edges of permanently exposed concrete.
- I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
- J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEM INSTALLATION

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC 303.
 - 2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.
 - 3. Install dovetail anchor slots in concrete structures as indicated.

3.3 REMOVING AND REUSING FORMS

- A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations and curing and protection operations need to be maintained.
 - 1. Leave formwork for beam soffits, joists, slabs, and other structural elements that support weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
 - 2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.
- B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material are not acceptable for exposed surfaces. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

3.4 STEEL REINFORCEMENT INSTALLATION

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
 - 1. Weld reinforcing bars according to AWS D1.4/D 1.4M, where indicated.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- E. Install welded-wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Engineer.
1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
 2. Form keyed joints as indicated. Embed keys at least 1-1/2 inches (38 mm) into concrete.
 3. Locate joints for beams, slabs, joists, and girders in the middle third of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
 4. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
 5. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
 6. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated.
 2. Terminate full-width joint-filler strips not less than 1/2 inch (13 mm) or more than 1 inch (25 mm) below finished concrete surface where joint sealants, specified in Section 079200 "Joint Sealants," are indicated.
 3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.
- E. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections are completed.

- B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect.
- C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301 (ACI 301M).
 - 1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 - 1. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
 - 2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301 (ACI 301M).
 - 3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches (150 mm) into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- E. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
 - 1. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
 - 2. Maintain reinforcement in position on chairs during concrete placement.
 - 3. Screed slab surfaces with a straightedge and strike off to correct elevations.
 - 4. Slope surfaces uniformly to drains where required.
 - 5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.

3.7 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power-driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.
 - 1. Apply float finish to surfaces to receive trowel finish.

- C. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighthen until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 - 1. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
 - 2. Finish and measure surface, so gap at any point between concrete surface and an unlevelled, freestanding, 10-ft.- (3.05-m-) long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/4 inch (6 mm).
- D. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces exposed to view. While concrete is still plastic, slightly scarify surface with a fine broom.
 - 1. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.

3.8 MISCELLANEOUS CONCRETE ITEM INSTALLATION

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations:
 - 1. Coordinate sizes and locations of concrete bases with actual equipment provided.
 - 2. Construct concrete bases 4 inches (100 mm) high unless otherwise indicated, and extend base not less than 6 inches (150 mm) in each direction beyond the maximum dimensions of supported equipment unless otherwise indicated or unless required for seismic anchor support.
 - 3. Minimum Compressive Strength: 4000 psi (27.6 MPa) at 28 days.
 - 4. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around the full perimeter of concrete base.
 - 5. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete substrate.
 - 6. Prior to pouring concrete, place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 7. Cast anchor-bolt insert into bases. Install anchor bolts to elevations required for proper attachment to supported equipment.

3.9 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 305.1 (ACI 305.1M) for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for remainder of curing period.
- D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.
- E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch (300-mm) lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
 - a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
 - b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
 - c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies does not interfere with bonding of floor covering used on Project.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound does not interfere with bonding of floor covering used on Project.

3.10 JOINT FILLING

- A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
 1. Defer joint filling until concrete has aged at least one month(s). Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.
- C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches (50 mm) deep in formed joints. Overfill joint and trim joint filler flush with top of joint after hardening.

3.11 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 (1.18-mm) sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
 1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch (13 mm) in any dimension to solid concrete. Limit cut depth to 3/4 inch (19 mm). Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
 2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar matches surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
 3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.

- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch (0.25 mm) wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 2. After concrete has cured at least 14 days, correct high areas by grinding.
 3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
 4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
 5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch (6 mm) to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 6. Repair defective areas, except random cracks and single holes 1 inch (25 mm) or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch (19-mm) clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete, except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
 7. Repair random cracks and single holes 1 inch (25 mm) or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- F. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.12 FIELD QUALITY CONTROL

- A. Special Inspections: The owner will employ an ICC certified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Inspections:
1. Steel reinforcement placement.
 2. Headed bolts and studs.
 3. Verification of use of required design mixture.

4. Concrete placement, including conveying and depositing.
 5. Curing procedures and maintenance of curing temperature.
- C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172/C 172M shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd. (4 cu. m), but less than 25 cu. yd. (19 cu. m), plus one set for each additional 50 cu. yd. (38 cu. m) or fraction thereof.
 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C 231/C 231M, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F (4.4 deg C) and below or 80 deg F (27 deg C) and above, and one test for each composite sample.
 5. Unit Weight: ASTM C 567/C 567M, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 6. Compression Test Specimens: ASTM C 31/C 31M.
 - a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
 - b. Cast and field cure two sets of two standard cylinder specimens for each composite sample.
 7. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.
 - a. Test one set of two field-cured specimens at 7 days and one set of two specimens at 28 days.
 - b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
 8. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
 9. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa).
 10. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.

11. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
12. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
13. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
14. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

END OF SECTION 033000

SECTION 055213 – PIPE AND TUBE RAILINGS

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Custom fabricate and install steel pipe and tube railings. Custom modify pipe and tube to configurations indicated on the structural plans. Embed plates are also included as indicated on the structural plans.
 - 2. Design Assistance: Provide design assistance through the submittal process that improves the final appearance, performance, durability, maintainability and constructability of this scope of work. Design presented in the contract documents is a baseline minimum standard. Material cost and construction schedule neutral refinements resulting from your experience that meets above criteria are welcome.

1.3 COORDINATION

- A. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, anchor bolts. Deliver such items to project site for installation.
- B. Schedule installation so attachments are made only to completed construction. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

1.4 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Fasteners
 - 2. Welding procedures
 - 3. Grout, anchoring cement, and paint products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each type of exposed finish required.
 - 1. Custom Formed Sections of each distinctly different linear railing member including handrails, top rails, posts and baluster.
 - 2. Fittings and brackets.
 - 3. Assembled Sample of railing system, made from full-size components, including top rail, lean rail, posts, and railing. Sample need not be full height.
 - 4. Show method of connecting and finishing members at intersections,

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Welding certificates.
- C. Mill Certificates: Signed by manufacturers of stainless-steel products certifying that products furnished comply with requirements.
- D. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers certifying that shop primers are compatible with topcoats.
- E. Product Test Reports: For pipe and tube railings, for tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.
- F. Evaluation Reports: For post-installed anchors, from ICC-ES.

1.6 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

1.8 FIELD CONDITIONS

- A. Field Measurements: Verify actual locations of curbs and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. All railings shall be supplied to conform to applicable sections of the following codes:
 - 1. International Building Code 2018
 - 2. ADAAG

- B. Structural Performance: Railings, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails and Top Rails of Guards:
 - a. Uniform load of 50 lbf/ ft. applied in any direction.
 - b. Concentrated load of 200 lbf applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change: 120 deg F ambient; 180 deg F material surfaces.
- D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

2.2 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.3 STEEL AND IRON

- A. Tubing: ASTM A 500.
- B. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
 - 1. Provide galvanized finish for exterior installations and where indicated.
- C. Plates, Shapes, and Bars: ASTM A 36/A 36M.

2.4 FASTENERS

- A. General: Provide the following:
 - 1. Steel Railings: Type 316 stainless-steel tamper resistant stainless-steel fasteners where indicated. Head design as approved by the Spokane Transit Authority.
 - 2. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

- B. Fasteners for Anchoring Railings to Other Construction: Select (unless otherwise indicated) Spokane Transit Authority approved tamper resistant fasteners of type, grad, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.
- C. Fasteners for Interconnecting Railing Components:
 - 1. Provide concealed Spokane Transit Authority approved tamper resistant fasteners for interconnecting railing components and for attaching them to other work, unless otherwise indicated.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. For steel railings, provide type and alloy as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.
- C. Etching Cleaner for Galvanized Metal: Complying with MPI#25.
- D. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- E. Shop Primers: Provide primers that comply with paint manufacturers recommendations for High Performance Coatings.
- F. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.
 - 1. Use primer containing pigments that make it easily distinguishable from zinc-rich primer.
- G. Epoxy Zinc-Rich Primer: Complying with MPI#20 and compatible with topcoat.
- H. Shop Primer for Galvanized Steel: Primer formulated for exterior use over zinc-coated metal and compatible with finish paint systems indicated.
- I. Intermediate Coats and Topcoats: Provide products that comply with paint manufacturer's recommendations for high performance coatings.
- J. Polyurethane Topcoat: Complying with MPI #72 and compatible with undercoat.
- K. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.
- L. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
- M. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.

2.6 FABRICATION

- A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.
- B. Shop assemble railings to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form work true to line and level with accurate angles and surfaces.
- E. Fabricate connections that are exposed to weather in a manner that excludes water. Provide weep holes where water may accumulate.
- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- G. Connections: Fabricate railings with either welded or nonwelded connections unless otherwise indicated.
- H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove flux immediately.
 - 4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- I. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
 - 1. Fabricate splice joints for field connection using an epoxy structural adhesive if this is manufacturer's standard splicing method.
- J. Form Changes in Direction as Follows:
 - 1. By bending or by inserting prefabricated elbow fittings.
- K. For changes in direction made by bending, use jigs to produce uniform curvature for each repetitive configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- L. Close exposed ends of railing members with prefabricated end fittings.

2.7 STEEL AND IRON FINISHES

A. Galvanized Railings & Embed Plates:

1. Hot-dip galvanize exterior steel railings, including hardware and embed plates, after fabrication.
2. Comply with ASTM A 123/A 123M for hot-dip galvanized railings.
3. Comply with ASTM A 153/A 153M for hot-dip galvanized hardware.
4. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.
5. Fill vent and drain holes that are exposed in the finished Work, unless indicated to remain as weep holes, by plugging with zinc solder and filing off smooth.

B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.

C. Preparing Galvanized Railings for Shop Priming: After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and treat with etching cleaner.

D. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."

E. Primer Application: Apply shop primer to prepared surfaces of railings unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Shop, Field, and Maintenance Painting of Steel," for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.

1. Shop prime uncoated railings with high performance coating per manufacturer's recommendations.

F. High-Performance Coating: Apply epoxy intermediate and polyurethane topcoats to prime-coated surfaces. Comply with coating manufacturer's written instructions and with requirements in SSPC-PA 1, "Shop, Field, and Maintenance Painting of Steel," for shop painting. Apply at spreading rates recommended by coating manufacturer.

1. Color: Contractor to coordinate color with Spokane Transit Authority.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Fit exposed connections together to form tight, hairline joints.

- B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
 - 1. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 - 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 - 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
 - 1. Coat, with a heavy coat of bituminous paint, concealed surfaces of aluminum that are in contact with grout, concrete, masonry, wood, or dissimilar metals.
- D. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- E. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.2 RAILING CONNECTIONS

- A. Nonwelded Connections: Use mechanical or adhesive joints for permanently connecting railing components. Seal recessed holes of exposed locking screws using plastic cement filler colored to match finish of railings.
- B. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.
- C. Expansion Joints: Install expansion joints at locations indicated but not farther apart than required to accommodate thermal movement. Provide slip-joint internal sleeve extending 2 inches beyond joint on either side, fasten internal sleeve securely to one side, and locate joint within 6 inches of post.

3.3 ANCHORING POSTS

- A. Anchor posts to metal surfaces with oval flanges, angle type, or floor type as required by conditions, connected to posts and to metal supporting members as follows:
 - 1. For steel pipe railings, weld flanges to post and bolt to concrete supporting surfaces.

3.4 ADJUSTING AND CLEANING

- A. Clean steel by washing thoroughly with clean water and soap and rinsing with clean water.

- B. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 requirements for touching up shop-painted surfaces.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.
- C. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas, and repair galvanizing to comply with ASTM A 780/A 780M.

3.5 PROTECTION

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.
- B. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit or provide new units.

END OF SECTION 055213

SECTION 260500 - COMMON WORK RESULTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Refer to Division 01 for submittal requirements and formats.

1.2 OUTLINE OF WORK

- A. Scope: The work under this division includes furnishing all materials, equipment, labor, supervision, tools and items necessary for the construction, installation, connection, testing and operation of all electrical work for this project as shown on the Electrical Drawings and/or defined in Division 26 of the specifications.
- B. Contract Requirements: Comply with the requirements of the General Conditions, the Supplementary Conditions, and Division 01 as they apply to the work in this section. Comply with the requirements of the other specification divisions that have additional requirements for this work as referenced under Division 26 sections.
- C. Related Work Described Elsewhere: Where other divisions require electrical materials or installations under this division of the specifications, comply with all applicable requirements herein. Provide all electrical materials and installation work required to connect, test and operate equipment described in other divisions of these specifications as shown on the Electrical Drawings or specified hereinafter. Electrical installations required by other divisions but not shown on the Electrical Drawings or specifically called out in this division of the specifications shall be provided by the trade requiring the electrical work.
- D. Itemized Schedule of Costs: Furnish a contract cost breakdown by specification section to the Architect with a copy to the Engineer to allow evaluation of partial payment requests. Refer to Division 01 for requirements.
- E. Warranty: The Contractor shall guarantee all work installed under this specification and make good, repair or replace at his own expense, any defective work, materials or parts within the warranty period, if, in the opinion of the Architect, said defect is due to imperfection in material, design or workmanship. The warranty period shall be in accordance with Division 01 but not less than one year. Lamps are not warranted but all shall be operating at time of final acceptance. Warranty shall be submitted in writing as required in Division 01.

1.3 REGULATIONS

- A. Codes and Ordinances: Comply with all applicable codes, ordinances and regulations including the National Electrical Code, the Washington Administrative Code, National Electrical Safety Code, WISHA, NFPA, and all other national, state and local codes and ordinances. Notify the Architect of any non-compliance in contract documents to applicable codes and regulations prior to installation of the work. Changes in the work after initial installation due to requirements of code enforcing agencies shall be at no additional cost to the Owner.
- B. Permits: Provide and pay for all permits and fees required for this project. In addition to paying for all permits and fees, the Contractor shall be responsible for contacting the various Approving Authorities, arranging for review of shop drawings where appropriate, scheduling inspections in a timely manner, and making necessary corrections as required by the Approving Authorities.
- C. Approving Authority: It is the Contractor's responsibility to ascertain and contact the appropriate "Approving Authorities" for this project. Approving Authorities will include, but not be limited to the local Fire Marshal and the local authority having jurisdiction.
- D. Certificate of Inspection: Obtain a Certificate of Electrical Inspection from the local inspecting authority indicating final acceptance. Submit to the Owner upon completion of the project as part of project closeout.
- E. Safety Measures to be Taken: The Architect and Engineer have not been retained or compensated to provide design and construction review services relating to the Contractor's safety precautions or to means, methods, techniques, sequences or procedures required for the Contractor to perform his work. The Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The duty of the Architect and Engineer to conduct construction observations of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on or near the construction site. It shall be the Contractor's responsibility to comply with "Safety and Health Regulations for Construction," Volume 36, No. 75, Part II of the Federal Register by the U.S. Department of Labor. Contractor shall be responsible for providing all such safety measures and shall consult with the state or federal safety inspector for interpretation whenever in doubt as to whether safe conditions do or do not exist or whether he is or is not in compliance all with state or federal regulations.

1.4 DRAWINGS AND SPECIFICATIONS

- A. Intent: The Electrical Drawings and specifications are intended to include all labor and materials necessary to provide a complete and operating facility. Any materials shown and called for on the drawings but not mentioned in the specifications, or vice versa, which are necessary for the proper completion of the installation or operation of the equipment, shall be furnished the same as if specifically called for in both. By submitting a bid, the Contractor is acknowledging that he has made a thorough examination of the contract documents, existing site conditions, and has determined that these documents and conditions do sufficiently describe the scope of construction work required under this contract. Any questions regarding interpretation of the contract documents shall be made in writing in a timely manner prior to the bid date to allow reasonable time for resolution of the questions.

- B. Diagrammatic Drawings: The Electrical Drawings are diagrammatic and do not show exact or complete raceway and wiring configurations, routing, rating or the necessary number and types of raceway fittings, junction boxes and pull boxes. Provide all labor and materials required to execute the work specified herein or described on the Electrical Drawings.

1.5 SUBMITTALS AND SHOP DRAWINGS

- A. Submittals, General: All equipment must be submitted for review prior to installation. Provide submittals in accordance with Division 01. The remaining instructions in this paragraph are intended to supplement and amplify the requirements of Division 01. Bind submittals in three-ring binder. Open catalog sheets will not be accepted. Shop drawings shall consist of one reproducible drawing and a maximum of four blueprint sets. Index to the applicable specification section with a transmittal letter bound as the first sheet. Provide an index with each section of equipment indicating exact catalog numbers of products provided. In addition, identify the specific products by catalog number within the submittal documents. Submittals will not be accepted unless they conform to these requirements.
- B. Shop Drawings: Provide shop drawings, descriptive bulletins, data sheets, diagrams, catalog cuts or other additional information as required for all specified materials including the following:

	Submittal Number	Date Reviewed
Raceways and Fittings	_____	_____
600-Volt Wire and Cable	_____	_____
Electrical Identification	_____	_____
Grounding	_____	_____
Panelboards	_____	_____

- C. Submittal Format: Submittals must be sent in complete "sets," including all specified material. Submission of individual materials will not be accepted.
- D. It is the Contractor's responsibility to thoroughly review vendor-assembled shop drawings, catalog cuts, etc. to ensure that these documents are complete and comply with the specifications. If this coordination effort is not done, the Architect reserves the right to reject the complete submittal without review. To insure compliance with the Architect's review comments and communication of these comments through the Contractor and supplier to the manufacturer, all corrections to shop drawings shall be done by the manufacturer and resubmitted as requested by the Architect. "Local" mark-ups of the manufacturer's shop drawings will not be accepted.

1.6 RECORD DRAWINGS

- A. **Maintained on Site:** A record shall be made during the progress of the project indicating the work as actually installed. Corrections and changes shall be kept up to date at all times on a separate set of record drawings kept at the job site for review by the Architect. Mark-ups may be schematic as related to interior raceway systems, however, all raceways shall be shown in proper relationship with junction boxes, panelboards, devices, and equipment. Raceways installed below grade shall be shown with both horizontal and vertical dimensions at an accuracy of ± 6 inches.
- B. **Project Closeout:** Provide one set of prints indicating work as revised, detailed and actually installed, and submit to the Architect as part of the Project Closeout documentation. Panel schedules and fixture/equipment schedules shall also be updated.
- C. **Additional Record Drawings:** Refer to Signal and Communication Systems section for additional record drawing requirements. AutoCAD production requirements also apply to all signal and communications system drawings.

1.7 CONSTRUCTION SCHEDULING AND SEQUENCING

- A. Construction will occur in numerous phases. At the completion of each phase the electrical systems shall be tested and the Owner trained in the use of the systems. Refer to Architectural Drawings and the specifications for construction schedules and sequencing requirements.

1.8 ABBREVIATIONS AND DEFINITIONS

- A. **Provide:** To furnish and install.
- B. **Wiring:** Raceway, conductors and connections.
- C. **Exposed:** Visible from occupied areas.
- D. **Install:** To set in position and make fully operational.
- E. **Furnish:** Purchase and deliver to the job site.
- F. **Required:** As required by code, authority having jurisdiction or contract documents for the system and/or installation to be fully operational.

PART 2 - PRODUCTS

2.1 STANDARD OF QUALITY

- A. **General:** Whenever any material or equipment is specified by patent or proprietary name or by the name of the manufacturer, such specification shall establish the standard of quality in that particular field of manufacture. The Architect shall be the sole and final judge as to quality and acceptability of substitutions, no exceptions.

B. Substitutions:

1. Unless otherwise noted on the drawings or other sections of the specifications, the Contractor may offer material or equipment with equal or better qualities than those specified. Reference is made particularly to Instructions to Bidders related to prior approval requirements.
2. When the substitute equipment or material necessitates revisions to the plans or involves other trades, the Contractor shall include drawings and details showing all such changes, and coordinate and assume any liability and costs from the affected trades. Also, if a change required engineering or mechanical services or other equipment modifications, these services shall be billable to the Contractor.

2.2 PRODUCT LISTING OR LABELING

- A. All electrical equipment and materials shall have Underwriters' Laboratories, Inc., or other approved testing facility label whenever published standards exist. Equipment in compliance with UL standards but not bearing their label is not acceptable. If the manufacturer cannot arrange for labeling of an assembled unit at the factory, the necessary inspection and acceptance by the testing facility shall be performed in the field at no additional cost to the Owner, and be acceptable to the authority having jurisdiction.

PART 3 - EXECUTION

3.1 GENERAL

- A. All materials shall be new, free from defects and arrive at the job site in original unopened containers.

3.2 MATERIAL STORAGE

- A. Make all necessary provisions for storing materials and equipment at site so as to insure the quality and fitness of the items to be incorporated in the work. Equipment shall be stored to prevent damage and corrosion.

3.3 WORKMANSHIP AND COORDINATION

- A. General: Workmanship shall be the best quality as recognized by the electrical construction industry and satisfactory to the Owner and Architect. Remove and replace lesser quality work as directed at no additional cost to the Owner. The Architect, or his designated representative, shall be the judge of the required quality of workmanship.

- B. Work of Other Trades: The Electrical Drawings do not show complete details of the building construction. Refer to the Architectural, Structural, Civil Landscape and Mechanical Drawings for those details which may affect the execution of this work. Specific locations of construction features shall be obtained from the reference drawings, field measurements, or the trade providing the material or equipment. No extra payments will be allowed for failure to obtain this information.
- C. The Contractor will not be paid for work requiring reinstallation due to lack of coordination prior to installation i.e., removing, replacing, relocating, cutting, patching or finishing. Special attention is called to the following items and all conflicts shall be coordinated prior to installation:
1. Light switches will be located on the "strike" side of the door.
 2. All electrical outlets, lighting fixtures, signal and communications devices, and other electrical devices and equipment are installed to avoid conflict with grilles, pipes, sprinkler heads, ducts and other mechanical equipment.
 3. Electrical outlets, lighting fixtures, signal and communications devices and equipment are to be installed in proper relation to cabinets, counters, doors and other Architectural appurtenances.
 4. Electrical characteristics (HP, KVA, voltage, phase, fusing, overload protection) of actual equipment furnished under other divisions being different from that shown on the electrical drawings.
- D. Cooperation: Plan and execute work in cooperation with all other trades and utility companies. Every reasonable effort shall be made to provide all concerned with timely notice of work affecting other trades, and to prevent conflicts or interference as to space requirements, dimensions, openings, block-outs, sleeving or other matters which will cause delays or necessitate work-around methods.
- E. General Construction:
1. Cutting and Patching: Provide all cutting, demolition and patching required for the installation of the electrical work on this project. Patching shall be accomplished by utilizing the general construction trades normally providing materials and labor needed for restoration of floor, ceiling or walls. Penetrations through existing structural walls, ceiling or floor slabs shall be core drilled. Spillage from core drilling shall be contained by diking, vacuuming and covering with protective plastic sheeting as required. In no case shall structural members be penetrated without prior approval of the Architect. After installation of raceways, provide approved fire sealing materials to close spaces around raceways.
 2. Sleeves and openings required through floors and walls for electrical work shall be the responsibility of the Contractor. This work shall be carefully coordinated with the General Contractor and other trades involved. All openings around conduits in sleeves shall be sealed with a material of equal fire rating as the material penetrated.
 3. Painting: Touch up electrical equipment with factory finished surfaces as required using factory furnished paint. Coordinate field painting requirements with the Architect prior to final trim and cover installation. Do not paint screw heads, hinges, nameplates, hardware, etc. All surface-mounted raceways in finished areas will be painted as directed under the "Painting" division of the specifications. Coordinate timing of installation to minimize conflicts with painting requirements.

4. Cleaning: Promptly remove waste material and rubbish resulting from electrical work. Prior to energizing equipment, remove all chipping materials, construction dirt and debris, vacuum and wipe-down all internal areas. At completion of the project, clean all equipment and fixtures installed under this Contract.
5. All penetrations through building roofing shall be flashed by a qualified roofing contractor normally in the business of commercial roofing. Flashing shall be in accordance with NRCA standard practices.
6. No penetrations shall occur in beams with internal pre-stressed cable design or concrete floor slabs with pre-stressed cabling will be allowed without prior written analysis by a structural engineer.
7. Prevent spillage during hauling operations. In case of spills (including trenching materials) clean streets, walkways, courtyards, etc. by means of proper sweepers or other approved methods.

F. Existing Conditions:

1. General: Specific scope of demolition work and operating conditions to be encountered shall be verified by on-site review prior to submitting bid. Demolition work in general is noted or shown on the documents based upon available "drawings of record" and may not show the actual conditions as they presently exist. The Contractor shall be responsible for removing or modifying the existing electrical installation as required by the building alterations. The Contractor shall be responsible for protection of existing equipment and wiring to be retained or reinstalled and shall replace any equipment damaged during the process of removal and reinstallation.
2. Owner Retained Equipment: The Owner may wish to retain certain specific items scheduled for demolition. The Contractor shall carefully remove these items, provide protection and packaging as may be required to protect the equipment and turn over said equipment to the Owner at a place designated on the jobsite. Any equipment that the Owner does not desire to retain shall become the property of the Contractor and be removed from the site.
3. Existing Conduit and Wiring: No existing conduit or wiring shall be reused.
4. Unused Conduit and Wiring: All unused conductors in existing buildings shall be removed. All unused conduit shall be removed except where located in or above existing construction which is not being altered and would require removal and replacement of the existing construction.

3.4 CONSTRUCTION OBSERVATION AND FINAL ACCEPTANCE

- A. Site Review: On-site meetings or reviews of construction by the Architect, Engineer or Owner shall not be construed as acceptance by these parties as related to quantities, rough-in locations, and compliance with code enforcing authorities unless specific exceptions have been brought to the attention of the Architect or Engineer and have been accepted in writing.

- B. Testing: The Contractor shall test all wiring and all electrical equipment to verify absence of grounds and short circuits and verify proper operation, rotation, and phase relationship. Contractor will be responsible for scheduling of tests and demonstrations at times mutually acceptable to the Owner. All equipment shall be demonstrated to operate in accordance with the requirements of this specification and the manufacturer's recommendations. Operate every device manually and automatically in accordance with its purpose. Tests shall be performed in the presence of the Owner or his designated representative. All instruments and personnel required to conduct the test shall be provided by the Contractor. Any test not witnessed by the Owner shall be waived by written document. All such documents must become the property of the Owner upon completion of construction.
- C. Completion of Work: When requesting final inspection, provide ten day notice. Submit written certifications that the work has been fully completed in strict accordance with the plans and specifications.
- D. Final Documentation: See STA General Conditions. All manuals, test results, and acceptances by the inspecting authorities shall be included in this final documentation.

END OF SECTION 260500

SECTION 260519 - ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Refer to Division 01 for submittal requirements and formats.

1.2 SCOPE

- A. Provide all wire and cable required for electrical systems being installed.

PART 2 – PRODUCTS

2.1 PROHIBITED MATERIALS:

- A. Type MC cable, similar to Armor Cable and like material.

2.2 MATERIALS

- A. All wiring shall be Copper and be rated at 600 volts. Aluminum is acceptable for feeders rated 100 amps or larger.
- B. Wire sizes 12 and 10 shall be solid, Type THHN, Wire sizes 8 and larger shall be stranded, type THW, THHN/THWN. Minimum wire size shall be 12 AWG, unless noted otherwise.
- C. Pre-manufactured fixture whips may be used to connect recessed light fixtures in accessible ceilings.
- D. Minimum Conductor Size:
 - 1. Neutral: #10 AWG (#12 AWG minimum for dedicated neutrals and lighting circuits).
 - 2. Ground: #12 AWG.
- E. Molded connectors with metal thread-on core shall be used for splicing 12 and 10 wire.
- F. Stranded cable shall be connected to lugs using mechanical connectors and shall be wrapped with electrical tape to a thickness equal to the wire insulation connecting block.
- G. Splices: For #8 and larger conductors, use molded insulated connector splice block.

2.3 MANUFACTURER

- A. American Insulated Wire Corp, General Cable, Rome, Southwire, or approved equal.

2.4 TERMINATIONS AND SPLICES

- A. Provide insulated screw-on type connectors on lighting and receptacle branch circuit splices; Ideal Wingnut or equal. Self-stripping crimp-pressure-type connectors such as Scotchlock 500 series are not approved. Insulated ring-tongue compression-type terminals (Burndy or T&B) for motor and equipment terminations; hydraulically set compression lugs for terminations at panel and switchboard busses; and Cadweld exothermic type for grounding systems.
- B. Below-grade splices shall be made in handholes and shall be made watertight with epoxy resin type splicing kits. Scotchcast or equal.

2.5 SIGNAL AND COMMUNICATIONS WIRING

- A. All signal and communications wiring is included in the appropriate signal and communications system specification sections.

2.6 CABLE TIES

- A. Shall be Thomas & Betts "Ty-Rap." Provide in switchboards, wireways, panelboards, relay panels and other enclosures to neatly group and lace electrical conductors.

2.7 WIRE PULLING COMPOUND

- A. Manufacturer: Ideal "Aqua-Gel II" or equal.

PART 3 – EXECUTION

3.1 BRANCH CIRCUITS

- A. Branch circuits shall be no. 12 AWG minimum, color-coded as listed below. Homeruns greater than 100 feet to first outlet shall be No. 10 minimum. Use no mechanical means for pulling wire. Make no splices in home runs. Wiring from separate raceway systems shall not be intermixed in common junction boxes. Wiring shown in separate raceway systems shall not be combined unless specifically approved by the engineer.
- B. All circuits shall have separate neutrals. No shared neutrals will be allowed.
- C. Provide separate ground bonding conductor full length inside all conduit.
- D. Where more than three current carrying conductor are installed in a single raceway, the minimum wire size shall be increased to comply with NEC 310-16, Note 8.

3.2 FEEDERS

- A. Feeders shall be sized as shown on the drawings and color-coded in accordance with list below. Make no splices unless shown on the plans or specifically approved by the Architect's representative.
- B. Provide separate ground bonding conductor full length inside all conduit.

3.3 COLOR CODING REQUIREMENTS

- A. 120/208-volt, 3-phase, 4-wire systems or 120/240-volt, 3-phase, 4-wire systems:

Phase A	black
Phase B	red
Phase C	blue
Neutral	white
Ground	green
Isolated ground	green with yellow stripe
Travelers	yellow (for 3- and 4-way switching)
- B. Color-coded tape may be used in lieu of color-coded insulation for conductors No. 6 AWG and larger. However, when color-coded tape is used, the conductor insulation shall be black only, and shall be taped at all terminations and junction boxes with color scheme shown above for entire length of exposed conductor. All control wiring shall be black with wire numbers on each conductor at each termination point. Wiring diagrams shall have corresponding wire numbers indicated thereon.
- C. Color coding shall be approved by the inspecting authority.

3.4 SPLICES AND TERMINATIONS

- A. Lighting and receptacle branch circuit conductors up to No. 10 AWG shall be spliced with wing nut type connectors. Motor connections using wiring No. 8 AWG and larger shall be made with crimp-type sleeves or lugs insulated with heat shrink tubing. Feeders shall not be spliced, except in special situations after engineer approval.

3.5 PHASE BALANCING

- A. Contractor shall check load on each phase at each panel and service equipment, and make the necessary circuit adjustment to ensure proper balance of load on all three phases.

3.6 HOME RUNS

- A. Branch circuit conductors shall be home run to panelboards as shown on the drawings. Combining branch circuit home run conductors in single conduits is allowed up to three current carrying conductors per conduit.

END OF SECTION 260519

SECTION 260526 - GROUNDING AND BONDING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Refer to Division 01 for submittal requirements and formats.

1.2 GENERAL

- A. Provide power grounding system and equipment grounding system in accordance with the applicable codes and ordinances and as further defined on the plans.

1.3 GROUND CONTINUITY

- A. Provide through the entire electrical system. A separate green equipment grounding conductor shall be provided in all branch circuits.

1.4 BONDING

- A. Insulated grounding bushings shall be installed to bond all feeder conduits to the switchboard ground bus or panel ground bus at both ends of feeder raceways. Insulated grounding bushings shall also be installed in all feeder pull boxes to bond all conduits together. Jumpers or bonds shall be copper and sized in accordance with Table 250-95 of the National Electrical Code.

1.5 NEUTRAL GROUNDING

- A. The neutral point of all radically operated transformers shall be solidly grounded to the grounding system and transformer enclosure with code size ground conductors. The neutral bus in each panelboard shall be isolated from ground. The neutral shall be grounded only at a single point at the main switchboard or at separately derived system transformers.

1.6 SIZE OF GROUND WIRE

- A. In all cases, shall not be less than that required under National Electrical Code requirements.

1.7 RECEPTACLE GROUNDING

- A. Connect the ground terminal of all receptacles by utilizing a separate grounding conductor between the receptacle grounding screw and the ground conductor provided in the branch circuit. Integral mounting straps within the receptacle connected to the device mounting straps are not approved as a grounding method.

1.8 FLEXIBLE CONDUIT GROUNDING

- A. Provide a separate grounding conductor in all flexible conduit runs including watertight flexible conduit with integral grounding straps. Install ground conductor inside conduit with ungrounded conductors.

1.9 PVC CONDUIT GROUNDING

- A. Provide a code size green grounding conductor the full length of the feeder or branch circuit when PVC is used in whole or in part.

1.10 GROUND CONNECTIONS

- A. Ground connections to building steel, ground rods and cable taps shall utilize an exothermic welding process.

PART 2 – PRODUCTS

2.1 GROUND CONDUCTORS:

- A. Copper conductors in accordance with Section 260526 “Grounding and Bonding.”

2.2 EXOTHERMIC CONNECTIONS

- A. "Cadweld Exolon," Erico Products, Inc., Burndy "Thermoweld" or approved equal.

2.3 INSULATED GROUND BUSHINGS

- A. Malleable iron with insulated ring and ground clamp. Steel City or equal.

2.4 COMPRESSION CONNECTIONS

- A. Non reversible comperssions – listed hydraulically-crimped fittings

2.5 GROUND RODS

- A. 3/4" x 10'-0" long. Copper clad steel.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Provide main grounding busbar for telephone/data, intercom, television system head end equipment. Grounding conductor for telephone/data, intercom, television system main grounding busbar shall be #6 AWG, 600 volt, insulated copper conductor.
- B. Bond all telecommunication equipment chassis, ladder racks, cable trays, conduits, equipment frames, cabinets, and all other telecommunications room and equipment room metallic components to the main grounding busbar.
- C. Install ground rod vertically, with top flush with ground level unless physically protected. Connect to water service on street side of main shutoff valve, building structural steel, and service transformer ground rod.
- D. Install ground rod at each transformer and make connection to all exposed metal parts.
- E. Provide exothermic or braze all concealed or below grade connections. Provide exothermic connections to building steel.
- F. Compression connections shall be made using a hydraulic 4-way compression die. All compression connections shall be exposed.
- G. Provide separate ground conductor the full length of all raceways.

3.2 GENERAL TERMINATIONS

- A. Burnish to bare metal under all grounding and bonding terminations to assure good ground continuity. Terminations are to be attached with separate screw and nut. When more than one termination is required, provide a separate ground terminal strip.

3.3 DEVICE OUTLET BOX

- A. Provide separate grounding conductor between the outlet box containing the device and the branch circuit grounding conductor.

END OF SECTION 260526

SECTION 260533 - RACEWAYS AND FITTINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Refer to Division 01 for submittal requirements and formats.

1.2 SCOPE

- A. Provide complete raceway systems as shown on the drawings and/or as required for proper installation of the various electrical systems being installed under this project. Minimum raceway size shall be ½” for power and ¾” for systems and data unless noted otherwise.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Raceways: Allied, Carlon, Western or equal.
- B. Fittings: Appleton, Carlon, T&B, Steel City, O-Z/Gedney or equal.

2.2 RACEWAYS

- A. Rigid Nonmetallic Conduit: Rigid PVC, Schedule 40, UL listed for direct burial or concrete encasement.

2.3 FITTINGS

- A. Rigid Nonmetallic Conduit: Slip-on, nonthreaded type of same material as conduit. Provide rigid steel bends in conduit runs.

PART 3 – EXECUTION

3.1 COORDINATION

- A. The Contractor shall review all drawings, details and elevations and coordinate with the Architect prior to rough-in, all installations of wiring devices and equipment. Where equipment is furnished by others, the Contractor shall ascertain the proper voltage, load and connection requirements prior to rough-in.

3.2 MATERIALS

- A. All materials of a specific type shall be provided by the same manufacturer throughout the project. These products shall be identical to those submitted for review.

3.3 RACEWAY INSTALLATION

- A. Raceway Types: Install raceway types and sizes as listed below:

1. Rigid Nonmetallic Conduit: Exterior underground installations; direct buried for lighting raceways,. 90° elbows to be rigid galvanized steel. Service raceways are to be concrete encased. Underground feeders; concrete encased with rigid steel conduit elbows.

- B. Installation:

1. Planning: The layout of all raceways shall be carefully planned by the Contractor to ensure an installation which is neatly done and workmanlike. Any work showing improper care in planning will be ordered removed by the Architect, and shall be replaced in a neat and proper manner, without any additional cost to the Owner.
2. Concealment: All raceways shall be concealed in finished areas unless approved otherwise by the Architect. Where existing wall surfaces are inaccessible, surface metal raceways for these exceptions may be provided when approved by the Architect. Raceways may be surface mounted in unfinished equipment spaces such as mechanical rooms, electrical rooms, elevator machine rooms, and attic spaces.
3. Cutting and Bending: Raceways shall have smooth interior, ends cut square and reamed. Bends shall be carefully made to avoid injuring or flattening raceways (no "Hickey" bends).
4. Exposed Raceways: Install exposed raceways as high as possible, above ductwork, parallel or at right angles to building lines.
5. Expansion and Earthquake Joints:
 - a. Raceways shall not be installed in concrete slab or wall construction when passing through an expansion or earthquake joint.
 - b. Raceways shall be installed in furred or suspended ceiling spaces with a minimum of 36 inches of flexible conduit crossing the expansion or earthquake joints. Secure raceways each side of joint.
6. Routing: All raceways shall be installed parallel or at right angles to the building construction unless prohibited by a physical obstruction. This applies to all exposed raceways as well as all raceways above suspended ceiling.
7. Raceway Supports: Raceways shall be supported with heavy-duty, one- or two-hole, pressed steel straps on interior surfaces. Support pendant-mounted raceways on 3/8-inch rod with pear-shaped hanger or trapeze-type hanger with 3/8-inch rod (minimum) and 1-5/8-inch square preformed channel and pipe clamps. Parallel, surface-mounted raceways shall be supported from 1-5/8-inch square preformed channel and pipe clamps. All fittings and supports shall be hot-dip galvanized in exterior areas. Preformed channel in areas above suspended ceilings may be standard painted finish. Multiple conduit runs shall be grouped and neatly racked on trapeze hangers.

8. Anchorage: Anchor to metal stud structures by means of sheet metal screws or manufactured spring steel clips. Fasten individual raceways supports to structural walls or slabs with steel expansion shells and bolts. Provide flush concrete insert for multiple raceway support system. Fasten to structural steel with heavy-duty beam clamps. Fasten to architectural or masonry walls with toggle bolts or molley screws.
9. Independent Support: Conduits shall not be supported from the ceiling suspension system, ducts, pipes or other systems foreign to the electrical installation. The entire electrical installation shall be kept independent from any other trade.
10. Suspended Ceiling: Branch circuit raceways and outlet boxes installed above suspended ceilings may be secured to No. 9 AWG or larger support wires that are independent of the ceiling suspension system under the following conditions:
 - a. Raceways and cables are not larger than 3/4" trade size.
 - b. No more than two raceways or cables are supported by a support wire.
 - c. Raceways and cables are secured to the support wires by fittings designed and manufactured for the purpose.
 - d. The support wires are securely fastened to the structural ceiling and to the ceiling grid system.
 - e. The raceways or cables serve equipment that is located within the ceiling cavity or is mounted on or supported by the ceiling grid system.
 - f. Where not prohibited by the building code officials.
11. Conduit Location: Conduit shall not be run under heavy equipment, footings or other structural elements that might adversely affect the integrity of the raceways system or building footing. All raceways installed above suspended ceilings must be kept a minimum of 6" clear above top of ceiling system.
12. Floor Slabs and Columns: Conduits installed in structural floor slabs shall be coordinated with structural steel and shall be routed to provide a maximum concrete cover. In general, conduit shall not be installed in structural columns, unless special permission is granted by the Architect.
13. Pullboxes with Covers: Shall be provided as shown on the drawings or as required by Code. All pullboxes shall be located so as to be accessible.
14. Metallic raceway shall be continuous and bonded/grounded. Transitions to ceiling, crawl or tunnel spaces are to be made from a junction box on the "concealed space" side of the penetration.
15. Conduit Stubs: Conduit which stub-up through the floor shall be installed at such a depth that none of the curved section of the elbow is visible.
16. Sealing: All conduit, sleeves, blockouts or openings around raceway and cable systems that penetrate building walls, floors and ceilings shall be sealed. Sealing materials shall be fire-rated, non-combustible type, specifically designed for this type of installation and shall be approved by the authority having jurisdiction.
17. Penetrations: Raceways which pass through building roof, exterior walls of building above or below grade and floor slabs on grade shall be sealed on the interior side of the building using non-hardening sealing compound after all conductors have been installed in the raceway. Sealing material shall be specifically designed for electrical wiring systems.
18. Conduit Penetrating Membranes: All conduits penetrating walls or slabs with membranes shall be installed with approved membrane clamping devices in order to provide necessary seal.

19. Exterior Walls: Conduits passing through exterior walls below grade and/or bridging an area which was previously excavated and backfilled shall be rigidly supported by a structurally reinforced concrete duct bank spanning between the building wall and a bearing surface on undisturbed earth.
20. Cleaning of Raceways: The interior and exterior of all conduits and other raceways shall be thoroughly cleaned of all material. All conduits shall be capped or plugged after installation to ensure that they remain clean.
21. No section of conduit shall be longer than 100 feet or contain more than three (3) 90 degree bends between pull points or pull boxes.
22. Rigid non-metallic conduit shall not be used in above grade floor slabs, or in wall or open spaces of any type.
23. Electrical metallic tubing (EMT): EMT shall be used in concealed spaces. EMT may not be used in finished areas unless indicated on the drawings. EMT may be used for exposed work in unfinished areas where not exposed to physical damage. Raceways in traffic areas shall be considered exposed to physical damage where within 10 feet of floor. If used in finished areas, must be painted to match existing wall/surface color.
24. Multiple rows of suspended conduits shall be supported from Trapeze style hangers, providing 20% spare room for future raceways.
25. Rigid non-metallic conduit installed underground shall be buried a minimum of 24" and a maximum of 30" under grade.

- C. Dissimilar Materials: Keep electrical conduits free from contact with all other piping runs of different systems or of dissimilar metals.

3.4 RACEWAYS AND CABLE INSTALLATION PATHWAYS FOR LOW VOLTAGE SYSTEMS

- A. Installation of Raceways/Pathways for intercom, clock, telecommunications and CATV systems shall be in accordance with the applicable portions of ANSI/TIA/EIA-569-A, Commercial Building Standards for Telecommunications Pathways and Spaces.
- B. Conduits above lay-in ceilings: Do not install cables in conduits that are supported from the ceiling suspension system. All conduits shall be supported independently of the ceiling support system.
- C. Minimum size is 3/4" for systems and data, unless noted otherwise. Conduit fill shall not exceed 40%.
- D. Bend radii for conduits shall meet the following requirements:
 1. If the conduit has an internal diameter of 2 inches or less, the bend radius must be at least 6 times the internal conduit diameter.
 2. If the conduit has an internal diameter of more than 2 inches, the bend radius must be at least 10 times the internal conduit diameter.

- E. There shall be no more than two 90 degree bends between pull points in telecommunications conduit, without derating of the conduit capacity. For each additional 90 degree bend the conduit capacity shall be derated by 15 percent. Increase conduit size as required to meet conduit fill requirements of this section with the derated capacity accounted for. Or, provide pull boxes to eliminate 90 degree bends as necessary to avoid having to derate conduit. Offsets shall be considered as equivalent to a 90 degree bend. Pull boxes added to conduit runs as of result of this requirement shall be in accordance with this section.
- F. Conduits which are terminated at cable trays shall be supported from structure with a maximum distance of 24” from the tray. Conduits terminated at cable trays shall be bonded to the tray.
- G. Exterior conduit shall be Schedule 40 PVC for Service Entrances. Interior conduit for vertical riser cable shall be GRC, sized per ANSI/TIA/EIA-568-A-5 or as indicated on the Contract Drawings. Interior conduit for horizontal cable shall be EMT, sized per ANSI/TIA/EIA-568-A-5 standards or as indicated on the Contract Drawings.
- H. Conduits and cut-out openings between floors shall be sealed with firestopping material which is removable and reusable, to accommodate adds, moves and changes in the cabling system.
- I. All conduits used for routing of low voltage cables shall have bushings at all stubouts.

END OF SECTION 260533

SECTION 260553 - IDENTIFICATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Refer to Division 01 for submittal requirements and formats.

1.2 SCOPE

- A. Provide proper identification of all electrical work specified. This shall include but not be limited to the following items: service and distribution equipment, starters, disconnects, cabinets, terminal boxes, device junction boxes, danger signs, maintenance access points, and fused switches including fuse size and type.
- B. Install nameplates on all main and distribution switchboards, panelboards, disconnect switches, and miscellaneous systems junction boxes and cabinets installed under this contract.
- C. Install bakelite nameplates at each protective device in switchboard and distribution centers, showing circuit service.
- D. Install circuit directory cards in all panelboards. Cards shall be typed or computer printed.
- E. All wiring in all outlet and junction boxes shall be properly identified as to circuit number. Type of marker shall be made with Brady ID Pro printer/labeler with 3/4" labels, or approved equal. Locate label on inside of device box. Label shall be black letters on white background using Brady #42019 tape and #42011 ribbon.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Prohibited Materials
 - 1. Dymo (or equivalent) labels shall not be utilized, unless specifically noted.
- B. Schedules – provide typewritten directory for each panel, on heavy card stock, showing all circuit numbers.

2.2 EQUIPMENT NAMEPLATES

- A. Nameplates shall be fabricated from white bakelite, with 3/8" engraved black letters.

- B. Mounting: Nameplates shall be attached with a minimum of two 6-32 roundhead screws, lockwasher and nuts in exterior locations and contact-type permanent self-adhesive in indoor locations.

2.3 CABINETS

- A. Provide a circuit directory inside the door of the cabinet.

2.4 DISCONNECT SWITCHES AND MOTOR STARTERS

- A. Provide nameplate which identifies the source panel, load served and the fuse size where applicable. (Example: Panel A-1,3,5/Exhaust Fan No. 1/10 amp, RK1 fuses.)

2.5 JUNCTION AND PULL BOX IDENTIFICATION

- A. Mark the cover of all junction boxes and pull boxes to identify the system, circuits, or feeders contained within the box. Use red color for fire alarm. Circuits shall be identified by panelboards and specific circuit numbers contained within the junction box. Refer to specification Section 260540 “Outlet, Junction and Pull Boxes” and Section 270500 “Common Work Results for Communications.”

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Clean all surfaces prior to installing labels. Where identification is to be applied to surfaces which require finish, install identification after completion of painting.
- B. Nameplates
 - 1. Panelboards: Mount inside door, on dead front, above circuit breakers, unless panelboard is located in a utility-type room, then install nameplate on outside of panelboard above door.
 - 2. Disconnect switches: Mount nameplate on outside of cabinet, near top. Omit nameplate from disconnect switches if located adjacent to equipment.
- C. Schedules
 - 1. Panelboards: Mount in frame under plastic cover, on back side of door. Schedule shall be typed or printed and show circuit service for each circuit breaker, using room numbers. Spares and spaces shall be written in pencil.

3.2 REGULATIONS

- A. Comply with governing regulations and requests of governing authorities for identification of electrical work.

3.3 DANGER AND WARNING SIGNS

- A. General: In addition to installation of danger signs required by governing regulations and authorities, Contractor shall be responsible for installing appropriate danger signs at locations constituting danger for persons in or about project.
- B. High Voltage: Install danger signs wherever it is possible, under any circumstances, for persons to come into contact with electrical power.

END OF SECTION 260553

SECTION 262416 - PANELBOARDS

PART 1 – GENERAL

1.1 SCOPE

- A. Provide all required panelboard equipment as shown on the drawings and specified herein.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. General Electric, Square D, Eaton, Siemens and Milbank. All catalog numbers refer to Square D to establish minimum standards for quality and performance.

2.2 120/208-VOLT PEDESTALS

- A. 120/208-volt, 3-phase, 4-wire. Provide bolt-on circuit breakers and spaces as indicated on the drawings. Minimum cabinet size: 20 inches wide x 12 inches deep x 42 inches tall. Circuit breakers shall have a minimum interrupting rating of 10,000 amperes symmetrical. Milbank commercial pedestals.

2.3 BUSSING

- A. Panelboard bussing shall be copper or tin-plated aluminum.

2.4 SPACE FOR FUTURE CIRCUIT BREAKERS OR FUSED SWITCHES

- A. Provide as indicated on the drawings. Spaces shall be completely equipped for the future addition of a circuit breaker or fused switch, including all mounting hardware and buss connections. Unless otherwise noted, spaces shall be sized to accommodate the following future circuit breaker or fused switch:

<u>Panel Rating</u>	<u>Minimum Space Ampacity</u>
100 amps	70 Amps
225 Amps	125 Amps
400 Amps	250 Amps
600 Amps	400 Amps
800 Amps	600 Amps
1200 Amps	800 Amps

2.5 MULTIPLE-POLE BREAKERS

- A. Shall have common trip with single handle.

2.6 BREAKER LOCK-OFF DEVICES

- A. Lock-off device shall mount on breaker handle to allow pad locking breaker in off position. Provide for breakers noted on drawings or required by Code.

2.7 PANELBOARD CIRCUIT NUMBERING

- A. Odd numbers on left side of panel, even numbers on right.

2.8 IDENTIFICATION

- A. Provide nameplates to identify all cabinets and index cards to identify each circuit in the panelboards.
- B. Label all conductors in panels with circuit number adjacent to the circuit breaker. Utilize plastic sleeve markers. T&B SM series or equal.
- C. Panel designations shall be laminated phenolic plastic with white letters. Provide black background for normal service panelboards and red background for panelboards automatically served by the emergency generator. Refer to Section 26 05 53.
- D. Circuit indexes shall be typewritten and identify locations using the final room numbers established by the Owner, not the room numbers shown on the Architect's floor plan. Indexes are to be located on the inside of each panel door in the space provided. Include a copy of all indexes in the Operations and Maintenance Manual.

2.9 GROUND BUS

- A. Provide one in each panelboard for terminating branch circuit ground conductors and feeder ground conductors. Multiple ground busses utilizing panelboard enclosures for continuity will not be accepted. Burnish area where ground connection is made to panelboard enclosure.

2.10 SPACE ONLY

- A. Means that complete provisions have been made so that only the adding and connection of the circuit breaker will complete the installation.

2.11 CABINETS

- A. All panelboards shall be provided with hinged door construction.
- B. Size of cabinets shall be in accordance with National Electrical Code, minimum size 20 inches wide x 5-3/4 inches deep, or as sized on drawings, sufficiently large to accommodate all equipment and conduit entering the top and bottom. No conduit shall enter sides or back.

- C. Cabinet fronts in finished areas shall be flush type, with smooth face and concealed trim clamps and hinges. Finish shall be ANSI 61 light gray. There shall be no monograms or trademarks visible on the face of the cabinet.
- D. Cabinet doors shall be tight closing without play when latched. Cabinet doors shall have flush retractable latch mechanisms. All cabinets shall be keyed alike.

PART 3 – EXECUTION

3.1 MOUNTING

- A. Where panelboards are to be installed against plasterboard walls, provide separate support channels secured to blocking between steel studs. Coordinate blocking work with the Gypsum Wallboard Contractor. Panels shall not be secured directly to gypsum wallboard material. Unless noted otherwise, mount top of panel at 6' 0" above finished floor.
- B. Where pedestals are to be installed, provide a secure means of mounting to a 4 inch concrete curb. Multiple pedestals may be mounted to the same curb, provide sufficient space between the pedestals for maintenance and access. Provide necessary hardware and accessories and install per manufacturers recommendations. Maintain NEC required clearances in front of access panels or doors.

3.2 CLEAN-UP

- A. After construction is complete, vacuum the interior of all new and existing panel enclosures and provide touch-up paint on factory finished surfaces.

3.3 TESTING

- A. After all wiring is complete, all feeder and branch circuit terminations shall be checked with a torque wrench. Torque levels shall be in accordance with NETA Standard ATS unless otherwise specified by the Manufacturer. A test report which gives the following information for each panelboard shall be submitted to the Engineer two weeks prior to final inspection:
 1. Size and insulation type of the phase, neutral and ground conductors.
 2. Phase-to-Phase and Phase-to-Neutral operating load voltage.
 3. Operating load current (each phase, neutral and ground).
 4. Phase-to-Phase and Phase-to-Neutral conductor insulation resistance. Test shall be made with a DC "Megger" (500V minimum) type tester. If tests indicate faulty insulation (less than 8 megohms) the conductors shall be replaced and retested.
 5. A copy of the test report shall be included in the Commissioning Field Notebook and the Operations and Maintenance Manual.
 6. Lace all conductors within panelboards utilizing tie-wraps

END OF SECTION 262416

SECTION 270500 - COMMON WORK RESULTS FOR COMMUNICATIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 specification sections, apply to this section.
- B. Comply with all requirements of Division 26.
- C. Comply with the following applicable standards and codes:
 - 1. National Fire Protection Agency (NFPA) 70: National Electric Code (NEC) 2008
 - 2. ANSI/TIA/EIA-568-B.1 and addenda
 - 3. ANSI/TIA/EIA-568-B.2 and addenda
 - 4. ANSI/TIA/EIA-568-B.3 and addenda
 - 5. ANSI/TIA/EIA-569-A and addenda
 - 6. ANSI/TIA/EIA-606 and addenda
 - 7. ANSI/TIA/EIA-607 and addenda
 - 8. Building Industries Consulting Services International (BICSI) Telecommunications Distribution Methods Manual (TDMM) 12th Edition.
- D. When conflict exists between local or national codes or regulations, the most stringent codes or regulations shall be followed.

1.2 DEFINITION

- A. Pathway: Conduit, wall rack, cable runway, sleeves, saddle bags, and J-hooks.
- B. EMI: Electromagnetic Interference.
- C. RFI: Radio Frequency Interference.

1.3 SUMMARY

- A. Pathway System:
 - 1. In general, only devices have been shown on the drawings. The Contractor shall provide a complete pathway system.
 - 2. Minimum raceway size shall be 1".

1.4 WIRE AND CABLE:

- 1. Comply with all requirements of Division 26 and other provisions of this section.
- 2. Unless specified otherwise, all cabling shall be plenum rated.

3. Provide wire and cable for each system according to the manufacturers requirements.

1.5 SUBMITTALS

- A. Product Data: Submit for each type of product provided.
- B. Shop Drawings:
 1. Raceway Riser Diagrams: Provide detailed raceway layout. Include designation of devices connected by raceway, raceway type and size, and type and size of wire and cable fill for each raceway run.
 2. Site and Floor Plans: Indicate final outlet and device locations, routing of raceways, and cables inside and outside the building.
 3. Device Identification: Identify each device by its address or identification number.
 4. System Wiring Diagrams: Include system diagrams unique to project. Show connections for all devices, components, and auxiliary equipment. Include diagrams for equipment and for system with all terminals and interconnections identified.
 5. Shop drawings shall utilize the final room numbers established by the Owner, not the room and building numbers shown on the architectural floor plans.

1.6 QUALITY ASSURANCE

- A. Contractor Qualifications:
 1. Possess those licenses/permits required to perform telecommunications installations in the specified jurisdiction.
 2. Personnel trained and certified to install products.
 3. Provide references of the type of installation provided in this specification.
 4. Personnel to be competent in Termination, Splicing, Testing, Trouble Shooting Fiber and Copper Products.
 5. Be in business a minimum of 5 years and successfully engaged in the routine installation of structured cabling systems (i.e. voice, data, fiber, video, etc.) of similar size and complexity.
 6. Possess current liability insurance certificates.
 7. Personnel knowledgeable in local, state, province and national codes, and regulations. All work shall comply with the latest revision of the codes or regulations.
- B. Warranty: Materials and workmanship hereinafter specified and furnished shall be fully guaranteed by the vendor for 20 years from acceptance and transfer of title against any defects and shall promptly correct or re-perform (including modifications or additions as necessary) any nonconforming or defective work that may occur during this period as a result of faulty materials or workmanship at no additional cost to the customer.
 1. The period of the vendor's warranty (ies) for any items herein are not exclusive remedies, and the customer has recourse to any warranties of additional scope given by the vendor to the customer and all other remedies available at law or in equity.
 2. The vendor shall pass along to the customer any additional warranties offered by the manufacturers, at no additional costs should said warranties extend beyond the 20 year period specified herein.

3. This warranty shall in no manner cover equipment that has been damaged or rendered unserviceable due to negligence, misuse, acts of vandalism, or tampering by the customer or anyone other than employees or agents of the vendor. The vendor's obligation under its warranty is limited to the cost of repair of the warranted item or replacement thereof, at the vendor's option. Insurance covering said equipment from damage or loss is to be borne by the vendor until full acceptance of equipment and services.
 4. If the vendor procures equipment or materials under the Contract, the vendor shall obtain for the benefit of the customer equipment and materials warranties against defects in materials and workmanship to the extent such warranties are reasonably obtainable.
 5. All non-consumable products to have a 20-year guarantee. In order to qualify for the guarantee, the structured cabling system must be installed per the following:
 - a. Meet all TIA/EIA commercial building wiring standards.
 - b. Use products purchased from authorized distributors.
 - c. Products must be installed per manufacturers instructions by a Certified Installer.
- C. All Networks shall be installed per applicable standards and manufacturer's guidelines.
- D. All manufacturers and part numbers are for performance standards only. Other manufacturers meeting the same performance standards as well as a minimum 20-year warranty will be accepted with prior approval via the formal RFI process.

1.7 COORDINATION

- A. Coordinate arrangement, mounting, and support of communications equipment:
1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
 2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
 3. To allow right of way for piping and conduit installed at required slope.
 4. So connecting pathways, cables, wireways, wall rack, and busways will be clear of obstructions and of the working and access space of other equipment.
- B. Coordinate installation with mechanical, plumbing, structural, electrical and other disciplines throughout all stages of construction.

PART 2 – PRODUCTS

2.1 GENERAL

- A. Comply with all requirements of Division 26.
- B. Material purchased for this project are to be turned over to owner upon completion of the project.

2.2 CABINETS

A. The Communications Cabinet shall meet the following requirements:

1. Cabinet construction

- a. Cabinet shall be 24.25-inch-wide x 18.25-inch-deep x 50.5-inch-high.
- b. Cabinet shall be furnished with a standard EIA rack of minimum 18RU
- c. Cabinets shall have a single, lockable front door.
- d. Construction shall be of .073-inch minimum thickness series 300 stainless steel or .125 minimum thickness 5052 H32 ASTM B209 alloy aluminum. The stainless steel shall be annealed or one-quarter-hardness complying with ASTM A666 stainless steel sheet. Cabinets may be finished inside with an approved finish coat of exterior white enamel. If no other coating is specified in the Contract Provision the exterior of all cabinets shall be bare metal.
- e. A spring-loaded construction core lock capable of accepting a Best 6-pin core shall be installed on the door accessing STA equipment. A 6-pin green construction core shall be installed in each core lock. Upon completion, two master keys shall be delivered to STA.

2. Cabinet Ventilation and Heating

- a. A 12-inch-wide x 16-inch-high x 1-inch-thick disposable paper filter element shall be provided.
- b. The cabinet shall be equipped with an electric strip heater with a rating of 100 watts and 120VAC, and a ventilation fan.
- c. The fan and heater strip shall be controlled by a high-low adjustable thermostat that can be set to ensure that the cabinet interior temperature remains between 60F and 125F.

3. Cabinet Accessories

- a. A shatterproof LED interior cabinet light with driver shall be furnished and mounted at the top of the front face of the rack. A door switch shall automatically turn on the lights when the door is opened.
- b. One shelf that attached to the front rails of the rack shall be provided. The shelf shall be fabricated from aluminum and contain a roll-out, flip-top drawer for storage of wiring diagrams and manuals.
- c. The cabinet shall be equipped with a power distribution panel mounted to a standard EIA 19-inch rack utilizing no more than 5 rack units. The following devices shall be provided with the power distribution panel:
 - 1) Duplex GFCI 120VAC power receptacle
 - 2) Main circuit breaker, 120VAC 20 amp
 - 3) Four load circuit breakers, 120VAC 15 amp
 - 4) Four duplex 120VAC power receptacles
 - 5) Ground bus
 - 6) Surge Suppressor and filter unit, 120VAC 50 amp

4. Cabinet Foundation

- a. The cabinets shall be mounted securely on a foundation with suitable hardware to elevate the cabinet and prevent ingress of water.
- b. All conduits entering the foundation shall be stubbed up 1.5-inches above the top of the foundation.

2.3 PATHWAYS

- A. General Requirements: Comply with TIA/EIA-569-A for pull-box sizing and length of conduit and number of bends between pull points.
- B. Only devices and telecommunications racks have been shown on the drawings. The Contractor is responsible for providing a complete pathway system. The shop drawings shall contain a fully-designed pathway system.
- C. Conduit and Boxes: Comply with requirements in Section 260533, "Raceway and Boxes."
 1. Flexible metal conduit and sleeves shall not be used.
 2. LB type fittings are not to be used.
 3. Conduit runs shall follow the most direct route possible with no more than 180 degree bends between pull boxes and contain no continuous sections longer than 100 feet.
 4. Pull boxes must be accessible (after all mechanical systems are in place) and used for runs that exceed 100 feet in length and after every cumulative 180 degree changes in direction. All pull boxes must have the insulated bushing installed before cable is pulled.
 5. When multiple conduits are pulled to one box, the minimum box size should be 24 inches by 24 inches by 6 inches. All conduits must maintain run direction through the pull box (i.e. no changing of direction inside the box). The size of pull boxes is determined by the size of conduit leaving and entering the pull box.
 6. A pull string shall be provided in all conduits. Pull a new pull string separate of cabling.
 7. Conduit must be bonded to ground on one or both ends.
 8. Label all pull and junction boxes.
 9. Device boxes shall be 4" square, deep type.

2.4 GROUNDING

- A. Comply with requirements in Section 260526 "Grounding and Bonding" for grounding conductors and connectors.
- B. Comply with ANSI-J-STD-607-A.

2.5 SOURCE QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to evaluate cables.
- B. Factory test cables on reels according to TIA/EIA-568-B.1.
- C. Factory test UTP cables according to TIA/EIA-568-B.2.

- D. Factory test multimode and single mode optical fiber cables according to TIA/EIA-526-14-A and TIA/EIA-568-B.3.
- E. Factory-sweep test coaxial cables at frequencies from 5 MHz to 1 GHz. Sweep test shall test the frequency response or attenuation over frequency, of a cable by generating a voltage whose frequency is varied through the specified frequency range and graphing the results.
- F. Cable will be considered defective if it does not pass tests and inspections.
- G. Prepare test and inspection reports.

PART 3 – EXECUTION

3.1 GENERAL

- A. The Contractor shall review all drawings, details and elevations and coordinate with the architect and mechanical contractor prior to installation.
- B. Install systems according to manufacturer's written instructions and shop drawings.
- C. Provide all raceways, wiring and ancillary equipment necessary for a complete and operational system.
- D. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- E. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both communications equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- F. The contractor shall maintain the owner's facility in a neat and orderly manner during the installation of the communications cabling system. At the completion of work in each area, the contractor will perform a final cleaning of debris prior to moving the installation crew to the next work area.
- G. The contractor shall establish a single point of contact with the General Contractor who will be responsible for reporting progress and updating the owner's representative with issues that the owner must address to facilitate the cabling system installation. The contractor's point of contact (POC) shall provide weekly written reports detailing progress.

3.2 GROUNDING

- A. Comply with ANSI-J-STD-607-A.
- B. Install grounding according to BICSI TDMM, "Grounding, Bonding, and Electrical Protection" Chapter.
- C. Grounding system components shall be installed as described in TIA-942, meet the National Electrical Code (NEC), and comply with all local codes.

- D. Ground cable shields and equipment to eliminate shock hazard and to minimize ground loops, common-mode returns, noise pickup, cross talk, and other impairments.
- E. Signal Ground Terminal: Locate at each equipment cabinet. Isolate from power system and equipment grounding.
- F. Bond metallic equipment to the grounding bus bar, using not smaller than No. 6 AWG equipment grounding conductor.
- G. Connect all Telecommunications Ground Bus Bars (TGB) to the Telecommunications Main Ground Bus Bar (TMGB) through the use of a Telecommunications Bonding Backbone (TBB). The TBB shall be installed independent of the building electrical and building ground per ANSI/TIA/EIA-607-A.

3.3 PATHWAYS

- A. Comply with TIA/EIA-569-A for pull-box sizing and length of conduit and number of bends between pull points.
- B. Comply with requirements in Section 260533 "Raceway and Boxes" for installation of conduits and wireways.
- C. Comply with the material and installation requirements specified in Section 260529 "Hangers and Supports."
- D. Provide long-radius elbows for all underground raceways. Install manufactured conduit sweeps and long-radius elbows elsewhere whenever possible.
- E. Raceway, cable runway, and wall racks, and all other pathways systems shall not exceed a 40 percent fill rate.

3.4 IDENTIFICATION

- A. Identify system components, wiring, cabling and terminals according to Section 260553 "Identification."

3.5 AS-BUILT SHOP DRAWINGS

- A. At the completion of the project, provide a complete set of as-built shop drawings (hard copy and CD) showing the following as-built:
 - 1. Raceway layout
 - 2. Wiring
 - 3. Device locations
 - 4. Device identification numbers

END OF SECTION 270500

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Protecting existing trees, shrubs, groundcovers, plants, grass and other vegetation to remain.
 - 2. Removing existing trees, shrubs, groundcovers, plants, grass and other vegetation.
 - 3. Clearing and grubbing.
 - 4. Stripping and stockpiling topsoil.
 - 5. Removing above- and below-grade site improvements.
 - 6. Disconnecting, capping or sealing, and removing site utilities.
 - 7. Temporary erosion and sedimentation control measures.
- B. Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
- C. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving" for soil materials, excavating, backfilling, and site grading.

1.3 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches (50 mm) in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 MATERIAL OWNERSHIP

- A. Except for materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, identifying and accurately locating capped utilities and other subsurface conditions.

1.6 QUALITY ASSURANCE

- A. Tree Service Qualifications: An experienced tree service firm that has successfully completed tree protection and trimming work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site on a full-time basis during execution of the Work.
- B. Tree Pruning Standards: Comply with ANSI A300, "Tree, Shrub, and Other Woody Plant Management Standard Practices," unless more stringent requirements are indicated.

1.7 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 authorities having jurisdiction.
- B. Improvements on Adjoining Property: Permission for performing site clearing indicated on property adjoining Owner's property shall be obtained by the Contractor prior to proceeding.
- C. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- D. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing. Do not commence site clearing operations until utilities have been located.
- E. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Division 31 Section "Earth Moving."
 - 1. Obtain approved borrow soil materials off-site when satisfactory soil materials are 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 flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements 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 requirements of authorities having jurisdiction and the sediment and erosion control Drawings.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
 - 1. Do not store construction materials, debris, or excavated material within fenced area.
 - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 - 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.

- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 - 1. Cover exposed roots with burlap and water regularly.
 - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 - 3. Coat cut faces of roots more than 1-1/2 inches (38 mm) in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 - 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Owner.
 - 1. Employ an arborist, licensed in jurisdiction where Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.
 - 2. Replace trees that cannot be repaired and restored to full-growth status, as determined by Owner.
- E. Grade Lowering: Where new finish grade is indicated below existing grade around trees, slope grade beyond drip line of trees. Maintain existing grades within drip line of trees.
- F. Minor Fill: Where existing grade is 6 inches (150 mm) or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.
- G. Moderate Fill: Where existing grade is more than 6 inches (150 mm), but less than 12 inches (300 mm), below elevation of finish grade, place drainage fill, filter fabric, and topsoil on existing grade as follows:
 - 1. Carefully place drainage fill against tree trunk approximately 2 inches (50 mm) above elevation of finish grade and extend not less than 18 inches (450 mm) from tree trunk on all sides. For balance of area within drip-line perimeter, place drainage fill up to 6 inches (150) mm below elevation of grade.
 - 2. Place filter fabric with edges overlapping 6 inches (150) minimum.
 - 3. Place fill layer of topsoil to finish grade. Do not compact drainage fill or topsoil. Hand grade to required finish elevations.

3.4 TREE PRUNING

- A. Prune remaining trees affected by temporary and new construction.
- B. Prune remaining trees to compensate for root loss caused by damaging or cutting root system. Provide subsequent maintenance during Contract period as recommended by a qualified arborist.
- C. Pruning Standards: Prune trees according to ANSI A300.

3.5 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Arrange with utility companies to shut off indicated utilities.
- B. 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 Owner not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.
- C. Excavate for and remove underground utilities indicated to be removed.

3.6 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction. Removal of trees and shrubs within area of new construction shall include digging out stumps and obstructions and grubbing roots. Removal of trees in areas adjacent to trees that are to remain and be protected shall include tree removal and grinding of stump to 3” below finished grade. Stump and root removal is not allowed in these areas to preserve health of adjacent trees.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 - 3. Completely remove stumps, roots, obstructions, and debris extending to a depth of 18 inches (450 mm) below exposed subgrade.
 - 4. Use only hand methods for grubbing within tree protection zone.
- 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 (200 mm), and compact each layer to a density equal to adjacent original ground.

3.7 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
 - 1. Remove subsoil and nonsoil materials from topsoil, including trash, debris, weeds, roots, and other waste materials.

- C. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Limit height of topsoil stockpiles to 72 inches (1800 mm).
 - 2. Do not stockpile topsoil within tree protection zones.

3.8 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 - 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.9 DISPOSAL

- A. Disposal: 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.
 - 1. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 311000

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Preparing subgrades for slabs-on-grade, walks, pavements, and landscaping.
 - 2. Excavating and backfilling for buildings and structures.
 - 3. Drainage course for slabs-on-grade.
 - 4. Base course for walks and pavements.
 - 5. Subsurface drainage backfill for walls and trenches.
 - 6. Excavating and backfilling for underground utilities and buried utility structures.
- B. Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
- C. Related Sections include the following:
 - 1. Division 31 Section "Site Clearing" for temporary erosion and sedimentation control measures, site stripping, grubbing, stockpiling topsoil, and removal of above- and below-grade improvements and utilities.

1.3 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Base Course: Course placed between the subgrade and walk or pavement.
- C. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

- E. Drainage Course: Course supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
- G. Fill: Soil materials used to raise existing grades.
- H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. (0.76 cu. m) for bulk excavation or 3/4 cu. yd. (0.57 cu. m) for footing, trench, and pit excavation.
- I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, manholes, catch basins, drywells, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- J. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below base course, drainage fill, or topsoil materials.
- K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
- B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
 - 1. Classification according to ASTM D 2487 of each on-site and borrow soil material proposed for fill and backfill.
 - 2. Laboratory compaction curve according to ASTM D 1557 for each on-site and borrow soil material proposed for fill and backfill.
 - 3. Submit certification that the soil materials are acceptable and meet the Project requirements.
- C. Pre-excavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins.

1.5 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock-definition testing, as documented according to ASTM D 3740 and ASTM E 548.

1.6 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Owner and then only after arranging to provide temporary utility services according to requirements indicated.
 - 1. Notify Owner not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM, or a combination of these groups; free of rock or gravel larger than 3 inches (75 mm) in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Base Course: Crushed rock surfacing used for base course shall conform to WSDOT Standard Specifications section 9-03.9(3), "Top Course".
- E. Structural Fill: Structural fill material shall consist of clean, free-draining sand, or a sand and gravel mixture, each containing not more than 5 percent fines by weight (fines defined as silt and clay sized particles passing the U.S. No. 200 sieve). Structural fill shall be free of debris, organic material, frozen soil, and rock particles greater than 4 inches in diameter. Structural fill shall conform to WSDOT Standard Specifications section 9-03.14(1), "Gravel Borrow".
- F. Drainage Course: Structural fill placed as a capillary break material below slabs shall consist of 1 ½ inch minus clean crushed gravel with negligible sand or fines in conformance with WSDOT Standard Specification section 9-03.1(4)C, "Grading No. 57".
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand in conformance with WSDOT Standard Specification section 9-03.12(3).
- H. Sand: ASTM C 33; fine aggregate, natural, or manufactured sand.

2.2 GEOTEXTILES

- A. Subsurface Drainage Geotextile: If not specified on the plans, provide a nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and WSDOT Standard Specification section 9-33, "Construction Geosynthetic".
- B. Separation Geotextile: If not specified on the plans, provide a woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and WSDOT Standard Specification section 9-33, "Construction Geosynthetic".

2.3 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility; colored as follows:
 - 1. Red: Electric.
 - 2. Yellow: Gas, oil, steam, and dangerous materials.
 - 3. Orange: Telephone and other communications.
 - 4. Blue: Water systems.
 - 5. Green: Sewer systems.
- B. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored as follows:
 - 1. Red: Electric.
 - 2. Yellow: Gas, oil, steam, and dangerous materials.
 - 3. Orange: Telephone and other communications.
 - 4. Blue: Water systems.
 - 5. Green: Sewer systems.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface as specified in Division 31 Section "Site Clearing."

- C. Protect and maintain erosion and sedimentation controls, which are specified in Division 31 Section "Site Clearing," during earthwork operations.
- D. Protect subgrades and foundation soils against freezing temperatures and frost.

3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.3 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

- A. Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered.

3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 mm). If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 - 2. Excavation for Underground Tanks, Basins, and Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch (25 mm). Do not disturb bottom of excavations intended as bearing surfaces.

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 - 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
 - 2. Utility trenches shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, utility trenches shall comply with the most current edition of the Standard Specification for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches (300 mm) higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: 12 inches (300 mm) minimum each side of pipe or conduit.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
- D. Trench Bottoms: Excavate trenches 6 inches (150 mm) deeper than bottom of pipe elevation to allow for bedding course. Hand excavate for bell of pipe.

3.8 SUBGRADE INSPECTION

- A. If Geotechnical Testing Agency determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- B. Proof-roll subgrade below the building slabs and pavements to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Geotechnical Testing Agency, and replace with compacted backfill or fill as directed.
- C. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Geotechnical Testing Agency without additional compensation.

3.9 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.10 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Construction below finish grade.
 - 2. Surveying locations of underground utilities for Record Documents.
 - 3. Testing and inspecting underground utilities.
 - 4. Removing concrete formwork.
 - 5. Removing trash and debris.
 - 6. Removing temporary shoring and bracing, and sheeting.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.11 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Backfill voids with satisfactory soil while installing and removing shoring and bracing.
- D. Place and compact final backfill of satisfactory soil to final subgrade elevation.
- E. Install warning tape directly above utilities, 12 inches (300 mm) below finished grade, except 6 inches (150 mm) below subgrade under pavements and slabs.

3.12 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use structural fill.
 - 3. Under steps and ramps, use structural fill.
 - 4. Under building slabs, use structural fill.
 - 5. Under footings and foundations, use structural fill.

- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.13 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.14 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches (300 mm) of existing subgrade and compact each layer of backfill or fill soil material at 95 percent.
 - 2. Under walkways, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 95 percent.
 - 3. Under lawn or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 90 percent.

3.15 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 1 inch (25 mm).
 - 2. Walks or Pavements: Plus or minus 1/2 inch (13 mm).
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch (13 mm) when tested with a 10-foot (3-m) straightedge.

3.16 BASE COURSE

- A. Place base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place base course under pavements and walks as follows:
 - 1. Place base course material over subgrade under pavements and walks.
 - 2. Shape base course to required crown elevations and cross-slope grades.
 - 3. Place base course 6 inches (150 mm) or less in compacted thickness in a single layer.
 - 4. Place base course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick.
 - 5. Compact base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.17 DRAINAGE COURSE

- A. Place drainage course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place and compact drainage course under cast-in-place concrete slabs-on-grade as follows:
 - 1. Place drainage course 6 inches (150 mm) or less in compacted thickness in a single layer.
 - 2. Place drainage course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick.
 - 3. Compact each layer of drainage course to required cross sections and thicknesses to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.18 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage and pay for services of a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.

- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade, verified by the geotechnical engineering testing agency.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft. (186 sq. m) or less of paved area or building slab, but in no case fewer than 3 tests.
 - 2. Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for each 100 feet (30 m) or less of wall length, but no fewer than 2 tests.
 - 3. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 150 feet (46 m) or less of trench length, but no fewer than 2 tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.19 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by geotechnical engineering testing agency; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.20 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION 312000

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Hot-mix asphalt patching.
- 2. Hot-mix asphalt paving.
- 3. Pavement-marking paint.

- B. Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

- C. Related Sections:

- 1. Division 02 Section "Selective Demolition" for demolition, removal, and recycling of existing asphalt pavements, and for geotextiles that are not embedded within courses of asphalt paving.
- 2. Division 31 Section "Earth Moving" for subgrade preparation, grading, and base course.

1.3 DEFINITION

- A. Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.
- B. WSDOT: Washington State Department of Transportation.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
 - 1. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
- B. Material Certificates: For each paving material, from manufacturer.

- C. Material Test Reports: For each paving material, from a qualified testing agency.
- D. Field quality-control test reports, from a qualified testing agency.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located.
- B. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated.
- C. Regulatory Requirements: Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver pavement-marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.
- B. Store pavement-marking materials in a clean, dry, protected location within temperature range required by manufacturer. Protect stored materials from direct sunlight.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, or if rain is imminent or expected before time required for adequate cure. Surface and air temperatures shall conform to requirements of WSDOT Standard Specifications.
- B. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature in conformance with WSDOT Standard Specifications 8-22.
- C. Traffic Control: Maintain access for vehicular and pedestrian traffic as required.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.

- B. Coarse Aggregate: ASTM D 692, in conformance with WSDOT Standard Specifications 9-03.8.
- C. Fine Aggregate: ASTM D 1073, in conformance with WSDOT Standard Specifications 9-03.8.
- D. Mineral Filler: ASTM D 242, in conformance with WSDOT Standard Specifications 9-03.8.

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO M 320 or AASHTO MP 1a, in conformance with WSDOT Standard Specifications 9-02.
- B. Retain first paragraph below if required. Tack coat is usually diluted in equal amounts of water and emulsified asphalt. It is usually applied to vertical surfaces of curbs, gutters, cold pavement joints, and structures in the pavement that will be in contact with hot-mix asphalt. Tack coat is also applied to existing pavement surfaces to bond new hot-mix asphalt paving overlays.
- C. Tack Coat: ASTM D 977 emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application, in conformance with WSDOT Standard Specifications 5-04.3(5)A.
- D. Water: Potable.

2.3 AUXILIARY MATERIALS

- A. Herbicide: Commercial chemical for weed control, registered by the EPA. Provide in granular, liquid, or wettable powder form.
- B. Sand: ASTM D 1073, in conformance with WSDOT Standard Specifications 9-03.8.
- C. Paving Geotextile: AASHTO M 288, nonwoven polypropylene; resistant to chemical attack, rot, and mildew; and specifically designed for paving applications, in conformance with WSDOT Standard Specifications 9-33.
- D. Joint Sealant AASHTO M 324, Type IV, hot-applied, single-component, polymer-modified bituminous sealant, in conformance with WSDOT Standard Specifications 9-04.2.
- E. Pavement-Marking Paint: Comply with WSDOT Standard Specifications 9-34.2(3), Low VOC Waterborne Paint.
 - 1. Color: As indicated.
- F. Glass Beads: AASHTO M 247, Type 1, in conformance with WSDOT Standard Specifications 9-34.4.

2.4 MIXES

- A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction and complying with the following requirements:
 - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
 - 2. Comply with WSDOT Standard Specification 5-04.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to begin paving.
- B. Proof-roll subgrade below pavements to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Geotechnical Testing Agency, and replace with compacted backfill or fill as directed.
- C. 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 (300 mm) into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. 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. (0.2 to 0.7 L/sq. m).
 - 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.
- C. Patching: Fill excavated pavements with hot-mix asphalt 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. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).
 - 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 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. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
 - 2. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
 - 3. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
 - 4. Comply with WSDOT Standard Specification 5-04.
- B. Place paving in consecutive strips not less than 10 feet (3 m) wide unless infill edge strips of a lesser width are required.
 - 1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips.
- 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.

3.5 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. Transverse Joints: Comply with WSDOT Standard Specification 5-04.3(12)A.
 - 3. Longitudinal Joints: Comply with WSDOT Standard Specification 5-04.3(12)B.
 - 4. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
 - 5. Compact asphalt at joints to a density within 2 percent of specified course density.

3.6 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. Comply with WSDOT Standard Specification 5-04.3(10).
- 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 specified density.
- 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. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.7 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated. Comply with WSDOT Standard Specification 5-04.
- B. Pavement Surface Smoothness: Comply with WSDOT Standard Specification 5-04.3(13).

3.8 PAVEMENT MARKING

- A. Apply pavement marking materials to clean, dry pavement surfaces according to WSDOT Standard Specification 8-22. Pavement markings shall comply with the Manual of Uniform Traffic Control Devices.

3.9 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage and pay for a qualified testing agency to perform tests and inspections and to prepare test reports.

- B. Field quality control, testing, and inspections shall comply with WSDOT Standard Specifications.
- C. Replace and compact hot-mix asphalt where core tests were taken.
- D. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.10 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.
 - 1. Do not allow milled materials to accumulate on-site.

END OF SECTION 321216

SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes exterior cement concrete pavement for the following:
 - 1. Driveways.
 - 2. Curbs and gutters.
 - 3. Walkways.
- B. Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
- C. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving" for subgrade preparation, grading, and base course.

1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash and other pozzolans, and ground granulated blast-furnace slag.
- B. WSDOT: Washington State Department of Transportation.

1.4 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated. Include technical data and tested physical and performance properties.
- B. Design Mixtures: For each concrete pavement mixture. Include alternate mixture designs when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance with the specified requirements.

- D. Material Certificates: Signed by manufacturers certifying that each of the following materials complies with requirements:
 - 1. Cementitious materials.
 - 2. Steel reinforcement and reinforcement accessories.
 - 3. Fiber reinforcement.
 - 4. Admixtures.
 - 5. Curing compounds.
 - 6. Applied finish materials.
 - 7. Bonding agent or epoxy adhesive.
 - 8. Joint fillers.
- E. Field quality-control test reports, from a qualified testing agency.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products who complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. Testing Agency Qualifications: An independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated, as documented according to ASTM E 548.
- C. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by requirements in the Contract Documents.
- D. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

1.6 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required.

PART 2 - PRODUCTS

2.1 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
 - 1. Use flexible or curved forms for curves with a radius 100 feet (30.5 m) or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2.2 STEEL REINFORCEMENT

- A. Joint Dowel Bars: Comply with WSDOT Standard Specification 9-07.5.
- B. Tie Bars: Comply with WSDOT Standard Specification 9-07.6.

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout the Project:
 - 1. Portland Cement: ASTM C 150, Type I. Comply with WSDOT Standard Specification 9-01. Supplement with the following:
 - a. Fly Ash: AASHTO M295, Class C or F. Comply with WSDOT Standard Specification 9-23.9.
 - b. Ground Granulated Blast-Furnace Slag: AASHTO M 302, Grade 100 or 120. Comply with WSDOT Standard Specification 9-23.10.
- B. Normal-Weight Aggregates: ASTM C 33, coarse aggregate, uniformly graded. Provide aggregates from a single source. Comply with WSDOT Standard Specification 9-03.
 - 1. Maximum Coarse-Aggregate Size: 1-1/2 inches (38 mm) nominal.
 - 2. Fine Aggregate: Comply with WSDOT Standard Specification 9-03.1(2).
 - 3. Coarse Aggregate: Comply with WSDOT Standard Specification 9-03.1(4).
- C. Water: ASTM C 94/C 94M.
 - 1. Comply with WSDOT Standard Specification 9-25.
- D. Air-Entraining Admixture: ASTM C 260.
 - 1. Comply with WSDOT Standard Specification 9-23.6(1).
- E. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material. Comply with WSDOT Standard Specification 9-23.6.
 - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
 - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.

2.4 CURING MATERIALS

- A. Curing Materials: Comply with WSDOT Standard Specification 9-23.

- B. Absorptive Cover: AASHTO M 182, Class 4, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) dry. Comply with WSDOT Standard Specification 9-23.5.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet. Comply with WSDOT Standard Specification 9-23.1.
- D. Water: Potable.
- E. Liquid Membrane –Forming Curing Compounds: Comply with WSDOT Standard Specification 9-23.2.

2.5 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: Comply with WSDOT Standard Specification 9-04.1.

2.6 PAVEMENT MARKINGS

- A. Pavement-Marking Paint: Comply with WSDOT Standard Specification 9-34.2(3), Low VOC Waterborne Paint.
 - 1. Color: As indicated.
- B. Glass Beads: AASHTO M 247, Type 1, in conformance with WSDOT Standard Specification 9-34.4.

2.7 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 211.1 for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed concrete mixture designs for the trial batch method.
 - 2. Comply with WSDOT Standard Specifications 5-05.3(1).
- B. Proportion mixtures to provide normal-weight concrete with the following properties:
 - 1. Compressive Strength (28 Days): 4000 psi (27.6 MPa).
 - 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.45.
 - 3. Slump Limit: 4 inches (100 mm), plus or minus 1 inch (25 mm).
- C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
 - 1. Air Content: 4-1/2 percent plus or minus 1.5 percent for 1-1/2-inch (38-mm) nominal maximum aggregate size.

- D. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Comply with WSDOT Standard Specification 9-23.

2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Comply with WSDOT Standard Specification 6-02.3(4). Furnish batch certificates for each batch discharged and used in the Work.
- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Comply with WSDOT Standard Specification 6-02.3(4)B.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine exposed subgrades and base surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proof-roll subgrade below concrete pavements to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Geotechnical Testing Agency, and replace with compacted backfill or fill as directed.
- C. Proceed with concrete pavement operations only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

3.2 PREPARATION

- A. Remove loose material from compacted base surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated. Comply with WSDOT Standard Specification 5-05.3(8).
 - 1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints. Comply with WSDOT Standard Specification 5-05.3(8)C.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated. Comply with WSDOT Standard Specification 5-05.3(8)D.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Comply with WSDOT Standard Specification 5-05.3(8)A. Comply with WSDOT Standard Specification 5-05.3(8)B for sealing sawed contraction joints.
- E. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a radius in accordance with WSDOT Standard Plans. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.
- F. Tie Bars and Dowel Bars: Comply with WSDOT Standard Specification 5-05.3(10).

3.5 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Remove snow, ice, or frost from base surface before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten base to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D. Comply with WSDDOT Standard Specification 5-05 and ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- E. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

- F. Consolidate concrete according to WSDOT Standard Specification 5-05 and ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 - 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- G. Screed pavement surfaces with a straightedge and strike off.
- H. Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- I. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not approved, remove and replace with formed concrete.
- J. Cold-Weather Placement: Comply with WSDOT Standard Specification 5-05.3(14), ACI 306.1, and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. Do not use frozen materials or materials containing ice or snow.
 - 2. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mix designs.
- K. Hot-Weather Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:
 - 1. Fog-spray forms and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.6 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 - 1. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.

3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with WSDOT Standard Specification 5-05.3(14) and ACI 306.1 for cold-weather protection.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
 - 1. Moist Curing: Comply with WSDOT Standard Specification 5-05.3(13)C.
 - 2. Moisture-Retaining-Cover Curing: Comply with WSDOT Standard Specification 5-05.3(13)B.
 - 3. Curing Compound: Comply with WSDOT Standard Specification 5-05.3(13)A.

3.8 PAVEMENT TOLERANCES

- A. Comply with tolerances of WSDOT Standard Specification 5-05, ACI 117 and as follows:
 - 1. Elevation: 1/4 inch (6 mm).
 - 2. Thickness: Plus 3/8 inch (10 mm), minus 1/4 inch (6 mm).
 - 3. Surface: Gap below 10-foot- (3-m-) long, unlevelled straightedge not to exceed 1/4 inch (6 mm).
 - 4. Lateral Alignment and Spacing of Tie Bars and Dowels: 1 inch (25 mm).
 - 5. Vertical Alignment of Tie Bars and Dowels: 1/4 inch (6 mm).
 - 6. Alignment of Tie-Bar End Relative to Line Perpendicular to Pavement Edge: 1/2 inch (13 mm).
 - 7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches (6 mm per 300 mm).
 - 8. Joint Spacing: 3 inches (75 mm).
 - 9. Contraction Joint Depth: Plus 1/4 inch (6 mm), no minus.
 - 10. Joint Width: Plus 1/8 inch (3 mm), no minus.

3.9 PAVEMENT MARKING

- A. Apply pavement marking materials to clean, dry pavement surfaces according to WSDOT Standard Specification 8-22. Pavement markings shall comply with the Manual of Uniform Traffic Control Devices.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage and pay for a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.

- B. Field quality control, testing, and inspections shall comply with WSDOT Standard Specifications.
- C. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
 - 1. Testing Frequency: Obtain at least 1 composite sample for each 100 cu. yd. (76 cu. m) or fraction thereof of each concrete mix placed each day.
 - 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
 - 3. Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
 - 4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F (4.4 deg C) and below and when 80 deg F (27 deg C) and above, and one test for each composite sample.
- D. Test results shall be reported in writing to Engineer, concrete manufacturer, and Contractor within 48 hours of testing.
- E. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate requirements have not been met.
- F. Remove and replace concrete pavement where test results indicate that it does not comply with specified requirements.
- G. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.11 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- C. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

3.12 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 321313

SECTION 334000 - STORM DRAINAGE UTILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes gravity-flow, nonpressure storm drainage outside the building, with the following components:
 - 1. Cleanouts.
 - 2. Drains.
 - 3. Precast concrete catch basins, inlets, and manholes.
 - 4. Precast concrete drywells.
- B. Work and materials shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, work and materials shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

1.3 DEFINITIONS

- A. PE: Polyethylene plastic.
- B. PVC: Polyvinyl chloride plastic.
- C. CPPA: Corrugated Polyethylene Pipe Association.

1.4 PERFORMANCE REQUIREMENTS

- A. Gravity-Flow, Nonpressure, Drainage-Piping Pressure Rating: At least equal to system test pressure in conformance with authorities having jurisdiction requirements. Pipe joints shall be at least soiltight, unless otherwise indicated.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.

- B. Shop Drawings: For the following:
 - 1. Manholes: Include plans, elevations, sections, details, and frames and covers.
 - 2. Catch Basins and Drywells: Include plans, elevations, sections, details, and frames, covers, and grates.
- C. Field quality-control test reports.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic structures, pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle manholes and other structures according to manufacturer's written rigging instructions.
- D. Handle catch basins and inlets according to manufacturer's written rigging instructions.

1.7 PROJECT CONDITIONS

- A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 - 1. Notify Owner no fewer than two days in advance of proposed interruption of service.
 - 2. Do not proceed with interruption of service without Owner's written permission.
- B. Site Information: Field verify existing conditions, research public records, and locate existing utilities.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

- A. Refer to Part 3 "Piping Applications" Article for applications of pipe, fitting, and joining materials.

2.2 PE PIPE AND FITTINGS

- A. Corrugated PE Drainage Pipe and Fittings NPS 10 (DN 250) and Smaller: AASHTO M 252M, Type S, with smooth waterway for coupling joints.
 - 1. Soiltight Couplings: AASHTO M 252M, corrugated, matching tube and fittings.

- B. Corrugated PE Pipe and Fittings NPS 12 to NPS 48 (DN 250 to DN 1200): AASHTO M 294M, Type S, with smooth waterway for coupling joints
 - 1. Soiltight Couplings: AASHTO M 294M, corrugated, matching pipe and fittings.

2.3 PVC PIPE AND FITTINGS

- A. PVC Sewer Pipe and Fittings, NPS 15 (DN 375) and Smaller: ASTM D 3034, SDR 35, with bell-and-spigot ends for gasketed joints with ASTM F 477, elastomeric seals.

2.4 NONPRESSURE-TYPE PIPE COUPLINGS

- A. Comply with ASTM C 1173, elastomeric, sleeve-type, reducing or transition coupling, for joining underground nonpressure piping. Include ends of same sizes as piping to be joined, and corrosion-resistant-metal tension band and tightening mechanism on each end.

2.5 CLEANOUTS

- A. Cleanouts: Cleanouts shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, cleanouts shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

2.6 MANHOLES

- A. Standard Precast Concrete Manholes: Manholes shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, manholes shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

2.7 CATCH BASINS

- A. Standard Precast Concrete Catch Basins: Catch basins shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, catch basins shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

2.8 INLETS

- A. Inlets: Inlets shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, inlets shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

2.9 DRYWELLS

- A. Precast Concrete Drywells: Drywells shall comply with the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, drywells shall comply with the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Division 31 Section "Earth Moving."

3.2 PIPING APPLICATIONS

- A. Pipe couplings and special pipe fittings with pressure ratings at least equal to piping rating may be used in applications below, unless otherwise indicated.
 - 1. Use nonpressure-type flexible couplings where required to join gravity-flow, nonpressure drainage piping, unless otherwise indicated. Use where required to join piping and no other appropriate method is specified.
- B. Gravity-Flow, Nonpressure Drainage Piping: Use the following pipe materials for each size range:
 - 1. NPS 4 to NPS 48 (DN 100 to DN 1200): Corrugated PE pipe and fittings, soiltight couplings, and coupled joints.
 - 2. NPS 4 to NPS 15 (DN 100 to DN 375): PVC sewer pipe and fittings, gaskets, and gasketed joints.

3.3 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.

- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install manholes, catch basins, or other specified drainage structures for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Tunneling: Install pipe under streets or other obstructions that cannot be disturbed by tunneling, jacking, or a combination of both.
- F. Install gravity-flow, nonpressure drainage piping according to the following:
 - 1. Install piping pitched down in direction of flow, at minimum slope of 1 percent, unless otherwise indicated.
 - 2. Install piping with 36-inch (915-mm) minimum cover, unless otherwise indicated.
 - 3. Install PE corrugated sewer piping according to CPPA's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings."
 - 4. Install PVC sewer piping according to ASTM D 2321 and ASTM F 1668.

3.4 PIPE JOINT CONSTRUCTION

- A. Where specific joint construction is not indicated, follow piping manufacturer's written instructions.
- B. Join gravity-flow, nonpressure drainage piping according to the following:
 - 1. Join corrugated PE piping according to CPPA 100 and the following:
 - a. Use soiltight couplings for Type 2, soiltight joints.
 - 2. Join PVC sewer piping according to ASTM D 2321 and ASTM D 3034 for elastomeric-seal joints or ASTM D 3034 for elastomeric gasket joints.
 - 3. Join dissimilar pipe materials with nonpressure-type flexible couplings.

3.5 CLEANOUT INSTALLATION

- A. Install cleanouts and riser extension from sewer pipe to cleanout at grade. Install cleanouts complete with appurtenances and accessories indicated. Install cleanouts according to the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, cleanouts shall be installed according to the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

- B. Set cleanout frames and covers in earth with tops 1 inch (25 mm) above surrounding grade.
- C. Set cleanout frames and covers in pavement with tops flush with pavement surface.

3.6 MANHOLE INSTALLATION

- A. Install manholes complete with appurtenances and accessories indicated. Install manholes according to the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, manholes shall be installed according to the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
- B. Install precast concrete manhole sections according to ASTM C 891.
- C. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches (76 mm) above finished surface elsewhere, unless otherwise indicated.

3.7 CATCH BASIN INSTALLATION

- A. Construct catch basins to sizes and shapes indicated.
- B. Set frames and grates to elevations indicated.
- C. Install catch basins complete with appurtenances and accessories indicated. Install catch basins according to the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, catch basins shall be installed according to the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

3.8 DRYWELL INSTALLATION

- A. Install drywells complete with appurtenances and accessories indicated. Install drywells according to the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, drywells shall be installed according to the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

3.9 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318/318R.

3.10 CONNECTIONS

- A. Connect nonpressure, gravity-flow drainage piping to building's storm building drains.

- B. Make connections to drainage piping and structures.
 - 1. Make connections according to the requirements and standards of the authorities having jurisdiction. If a standard is not provided by the authorities having jurisdiction, make connections according to the most current edition of the Standard Specifications for Road, Bridge, and Municipal Construction as jointly promulgated by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.
 - 2. Protect existing piping, manholes, and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.11 IDENTIFICATION

- A. Materials and their installation are specified in Division 31 Section "Earth Moving." Arrange for installation of green warning tape directly over piping and at outside edge of underground structures.
 - 1. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.12 FIELD QUALITY CONTROL

- A. Inspect and test storm drainage improvements according to requirements of authorities having jurisdiction.
- B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches (610 mm) of backfill is in place, and again at completion of Project.
 - 1. Submit separate reports for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 - 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 - 4. Reinspect and repeat procedure until results are satisfactory.
- C. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
 - 1. Do not enclose, cover, or put into service before inspection and approval.
 - 2. Test completed piping systems according to authorities having jurisdiction.

3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 4. Submit separate report for each test.
- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.13 CLEANING

- A. Clean interior of piping of dirt and superfluous materials.

END OF SECTION 334000