

CITY OF DUVALL

275TH AVE. NE COMPLETE STREETS

Installation of 6' wide concrete sidewalk, seating, exercise stations with engineered wood fiber surfacing and native landscaping along 275th Avenue NE between NE 150th Street and NE 145th Lane and ADA intersection improvements with crossing/illumination at NE 150th Street and 275th Avenue NE.

275th Avenue NE, Duvall, WA 98019

April 8, 2020

Project Manual

Contract #2020-15

City Officials:

Mayor: Amy Ockerlander

City Council: Dianne Brudnicki, Matthew Eyer, Amy McHenry, Mike Remington, Michelle Hogg, Jennifer Knaplund, Dorothy Lengyel

Owner:

City of Duvall, Public Works Department

14525 Main Street NE

Mailing Address: Box 1300

Duvall, WA

Project Manager: Alana McCoy, 425.939.8045

Engineer:

Steve Leniszewski, Public Works Director, 425.788.3434



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SECTION 00050 – ADVERTISEMENT FOR BIDS

NOTICE TO CONTRACTORS

City of Duvall
Department of Public Works
P.O. Box 1300
Duvall, WA 98019

City of Duvall 275th Ave. NE Complete Streets

RECEIPT OF BIDS: Sealed Bids will be received by the City of Duvall until **2:00 pm (as determined by the clock in the Clerk's office) on Wednesday the 27th of May, 2020.** Bids may be delivered to City Hall, 15535 Main Street NE, Duvall, Washington 98019 or mailed to the mailing address of P.O. Box 1300, Duvall, Washington 98019. **Bids mailed to the address set forth for delivery of Bids will not be delivered by the postal service.** Any Bids received after the specified time and date will not be considered.

OPENING OF BIDS: The Bids will be publicly opened and read at **2:05 on Wednesday, May 27, 2020** at the above-mentioned office of the City of Duvall.

COMPLETION OF WORK: The Work must be completed within **90** calendar days after the commencement date stated in the Notice to Proceed.

DESCRIPTION OF WORK: **Installation of 6' wide concrete sidewalk, seating, exercise stations with engineered wood fiber surfacing and native landscaping along 275th Ave. NE between NE 150th St. and NE 145th Lane and ADA intersection improvements with crossing/illumination at NE 150th St. and 275th Ave. NE.**

SITE OF WORK: The Project is located at **275th Ave. NE between NE 150th St. and NE 145th Lane, Duvall, WA 98019**

OBTAINING CONTRACT DOCUMENTS: The Contract Documents are available through the City of Duvall's on-line plan room at <http://bxwa.com>. Contact Builders Exchange of Washington at (425) 258-1303 should assistance be required.

PRE-BID CONFERENCE: An optional pre-bid conference will be held on site at NE 145th Lane and 275th Avenue NE at 10:00 am on Thursday the 14th of May, 2020.

BIDS TO REMAIN OPEN: The Bidder shall guarantee the total Bid price for a period of 60 calendar days from the date of Bid opening.

PROJECT ADMINISTRATION: All communications relating to the Project shall be directed to the following PROJECT REPRESENTATIVE prior to the opening of the Bids:

Alana McCoy, Project Manager, 14525 Main Street, Duvall, WA 98019, 425-939-8045
alana.mccoy@duvallwa.gov

OWNER'S RIGHTS RESERVED: The City of Duvall reserves the right to reject any or all Bids and to waive informalities in the bidding process. The Agreement will be awarded to the lowest responsive, responsible bidder as it may best serve the interest of the City of Duvall.

EQUAL OPPORTUNITY: The City of Duvall is committed to a program of equal employment opportunity regardless of race, color, creed, sex, age, national origin or the presence of any sensory, mental or physical disability.

[END OF SECTION 00050]

SECTION 00100 – INSTRUCTIONS TO BIDDERS

1. **DEFINED TERMS.** Terms used in these Instructions to Bidders and the Advertisement for Bids which are defined in the General Conditions have the meanings assigned to them in the General Conditions. The term “Bidder” means one who submits a Bid directly to the CITY, as distinct from a sub-bidder, who submits a price or quote to a Bidder.

2. **LOCAL BUSINESS LICENSE.** All Contractors, including Subcontractors, not already having a local business license for the work contemplated, will be required to secure the appropriate license before an Agreement can be executed.

3. **INTERPRETATIONS AND ADDENDA.** All questions about the meaning or intent of the Contract Documents are to be directed to the PROJECT REPRESENTATIVE. Additions, deletions or revisions to the Contract Documents considered necessary by the PROJECT REPRESENTATIVE in response to such questions will be issued by addenda mailed or delivered to all parties recorded by the PROJECT REPRESENTATIVE or CITY as having received the Contract Documents. Questions received less than 14 days prior to the date of Bids may not be answered. Only answers to such questions issued by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Addenda may also be issued to make other additions, deletions or revisions to the Contract Documents.

4. **BIDDER’S EXAMINATION OF CONTRACT DOCUMENTS AND SITE.**

4.1 It is the responsibility of each Bidder before submitting a Bid to:

A. Examine thoroughly the Contract Documents and other related data referred to in the Contract Documents;

B. Attend the pre-bid conference and Site visit, if any, described in the Advertisement for Bids;

C. Visit and examine thoroughly the Site and surrounding area so as to become familiar with any conditions at the Site, and other local conditions, that may affect cost, progress or performance of the Work;

D. Consider federal, state and local laws and regulations that may affect cost, progress or performance of the Work;

E. Study and carefully correlate the Bidder’s observations with the Contract Documents; and

F. Notify in writing the PROJECT REPRESENTATIVE of all conflicts, errors, ambiguities or discrepancies in or between the Contract Documents and other related data.

4.2 To the extent such information is available, reference is made to the Information Available to Bidders for the identification of:

A. Those reports of explorations and tests of subsurface conditions at the Site which have been utilized by the CITY in preparing the Contract Documents;

B. Those drawings of physical conditions in or relating to existing surface and subsurface conditions (except underground utilities) which are at or contiguous to the Site that have been utilized by the CITY in preparing the Contract Documents;

C. Those environmental reports or drawings relating to asbestos, hazardous waste, PCB's, petroleum and like materials identified at the Site which have been utilized by the CITY in preparing the Contract Documents;

4.3 The CITY makes no representation as to the completeness of the reports referred to in Section 4.2 above or the accuracy of any data or technical information contained therein. The Bidder may rely upon the accuracy of the technical data contained in such reports or drawings. However, the Bidder may not rely upon any interpretation of such technical data, including any extrapolation thereof, or any non-technical data, interpretations or opinions contained therein

4.4 If available, copies of the reports and drawings referred to above will be made available by the CITY to any Bidder upon request, if said reports or drawings are not bound herein. Those reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which the Bidder is entitled to rely are incorporated herein by reference.

4.5 Information and data reflected in the Contract Documents with respect to underground utilities at or contiguous to the site are based upon information and data furnished to the CITY by the owners of such underground utilities or others, and the CITY does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Contract Documents.

4.6 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground utilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in the General Conditions.

4.7 Before submitting a Bid, each Bidder will, at Bidder's expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the Site or otherwise, which may affect the cost, progress or performance of the Work and which a reasonable Bidder would deem necessary to determine its Bid for performing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.8 On request a minimum of two (2) days in advance, the CITY will provide each Bidder access to the Site to conduct such examinations, etc., as each Bidder deems necessary for submission of a Bid. The location of any excavation or boring shall be subject to the prior approval of the CITY and applicable agencies. Bidders shall fill all holes, restore all pavement to match existing structural sections and shall clean up and restore the Site to its prior condition upon completion of such excavation or boring. The CITY reserves the right to require Bidders to execute an Access Agreement with the CITY prior to accessing the Site.

4.9 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by the Bidder in performing the Work are identified in the Contract Documents. All additional lands and access thereto as may be required for temporary construction facilities or storage of materials and equipment are to be provided by the Bidder. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by the City unless otherwise provided in the Contract Documents.

4.10 The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of this Section 4 and the following:

A. That the Bid is premised upon performing the Work required by the Contract Documents without exception and such means, methods, techniques, sequences or procedures of construction (if any) as may be required by the Contract Documents;

B. That Bidder has given the PROJECT REPRESENTATIVE written notice of all conflicts, errors, ambiguities and discrepancies in the Contract Documents and the written resolution thereof by the PROJECT REPRESENTATIVE is acceptable to Bidder; and

C. That the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

5. **BID FORMS.** All blanks on the Bid Forms shall be completed in ink. All names must be printed below the signatures. The Bid shall be submitted in a sealed envelope which shall be plainly marked in the upper left hand corner with the name and address of the Bidder and shall bear the words "BID FOR" followed by the title of the Project, the name of the CITY, the address where Bids are to be delivered or mailed to, and the date and hour for opening of Bids.

6. **BID SIGNATURES.**

6.1 Bids by corporations must be executed in the corporate name by the president, a vice-president or other corporate officer. The corporate title of the signator, corporate address and state of incorporation must appear below the signature.

6.2 Bids by partnerships must be executed in the partnership name and be signed by a managing partner. His/her title and the address of the partnership must appear below the signature.

6.3 Bids by joint ventures must be executed in the joint venture name and be signed by a joint venture managing partner. His/her title and the address of the joint venture must appear below the signature.

7. **DISQUALIFICATION OF BIDDERS.** More than one Bid from an individual, firm, partnership, corporation or other type of entity under the same or different names will not be considered. If the CITY believes that any Bidder is involved in more than one Bid for the Project, all Bids in which such Bidder is involved will be rejected. If the CITY believes that collusion exists among the Bidders, all Bids will be rejected. A party who has quoted prices to a Bidder is not hereby disqualified from quoting prices to other Bidders, or from submitting a Bid directly for the Project.

8. **COMPETENCY OF BIDDERS.** In selecting the lowest responsive, responsible Bidder, consideration may be given to the financial standing and the general competency of the Bidder for the performance of the Work covered by the Bid. Therefore, after opening of the Bids the City may request additional information regarding the Bidder's recent work experience, references and financial standing.

9. **SUBMISSION OF BIDS.** The Bid shall be delivered by the time and to the place designated in the Advertisement for Bids. It is the Bidder's sole responsibility to see that its Bid is received in proper time and at the proper place.

9.1 **Delivery of Bids.** Bids may be delivered to 15535 Main Street NE, Duvall, Washington 98019.

9.2 **Mailing of Bids.** Bids may be mailed to the mailing address of P.O. Box 1300, Duvall, Washington 98019. **Bids mailed to address set forth above for the delivery of Bids will not be delivered by the postal service.**

10. **DISCREPANCIES IN BIDS.** If there is more than one Bid Item in the Bid Schedule, the Bidder shall furnish a price for all Bid Items in the Schedule and failure to do so will render the Bid non-responsive and shall cause its rejection. If there are unit price Bid Items in the Bid Schedule and the amount indicated for a unit price item does not equal the product of the unit price and quantity, the unit price shall govern and the amount will be corrected accordingly and the Bidder will be bound by the correction. If there is more than one Bid Item in the Bid Schedule and the total indicated for the Schedule does not agree with the sum of the prices Bid on the individual

items, the prices Bid on the individual items shall govern and the total for the Schedule will be corrected accordingly and the Bidder shall be bound by the correction.

11. **MODIFICATIONS AND ALTERATIONS TO BIDS.** Unauthorized conditions, limitations or provisos attached to the Bid shall render it non-responsive and shall cause its rejection. The Bid forms shall be completed without interlineations, alterations or erasures in the printed text. Alternative Bids will not be considered unless requested. Oral, telegraphic, facsimile or telephonic Bids or modifications will not be considered.

12. **WITHDRAWAL OF BIDS.** The Bid may be withdrawn by the Bidder by means of a written request, signed by the Bidder or its properly authorized representative. Such written request must be delivered to the place stipulated in the Advertisement for Bids and must be received prior to the scheduled closing time for receipt of Bids.

13. **AWARD OF CONTRACT.** The contract, if awarded, will be made to the Lowest Bid offered by a responsive, responsible Bidder whose Bid complies with the requirements of the Contract Documents. The Lowest Bid is defined as the base bid and any alternates the CITY chooses to accept. Unless otherwise specified, any such award will be made within the period stated in the Advertisement for Bids that Bids are to remain open. Unless otherwise indicated, a single award will be made for all the Bid Items in an individual Bid Schedule. The amount of unit prices or sales or use taxes to be collected from the CITY on the Bid price stated will not be considered as a competitive Bid Items and will not be included in determining the lowest priced Bid and will be considered to be an estimate only. The CITY reserves the right to reject any bid, any portion of any bid and/or to reject all bids. The CITY also reserves the right, but without obligation, to waive informalities and irregularities.

14. **EXECUTION OF AGREEMENT.** The Bidder to whom the award is made shall execute a written Agreement with the CITY in the form of Agreement bound herein, and shall secure and furnish all insurance, certificates and bonds required by the Contract Documents within 10 calendar days after receipt of the Agreement form from the CITY. **The Certificate of Insurance must name the City of Duvall as additional insured.** Failure or refusal to enter into the Agreement or to conform to any of the stipulated requirements in connection therewith shall be just cause for annulment of the award and forfeiture of the Bid Security. In that case, the CITY may award the contract to the next lowest responsive, responsible Bidder and so-on. If any Bidder which is subsequently awarded the contract as set forth in this Section fails or refuses to execute the Agreement or furnish the necessary insurance and bonds, each such Bidder's Bid securities shall likewise be forfeited to the CITY. The CITY reserves the right to reject all Bids or waive minor informalities in the Bidding process.

15. **LIQUIDATED DAMAGES.** Provisions for liquidated damages, if any, are set forth in the form of the Agreement to be executed as bound herein.

16. **SUBCONTRACTORS.**

16.1 The Bidder shall submit with the Bid the names and phone numbers of all Subcontractors whose subcontract will amount to 10% or more of the total Bid. The list shall include the name and telephone number of the Subcontractor, the category of work to be performed by the Subcontractor and the percentage of the total Bid price, which is comprised of such Subcontractor's work. Failure to submit this list may render the Bidder's Bid non-responsive and, therefore, void. The form provided as bound herein shall be used. The successful Bidder must have the written permission of the CITY to make any changes to the list submitted, which permission may be withheld unless the Bidder provides justification sufficient to the CITY for such change. To prevent bid shopping after the award of the Bid, the Bidder's ability to subcontract the intended work at a lesser price than that set forth in the list shall not, in and of itself, be deemed reasonable justification.

16.2 After award of the contract, the Bidder to whom the contract is awarded must submit at the Pre-Construction Conference a list of **all** Subcontractors and major Suppliers the Bidder intends to use on the Project, regardless of the value of the work such Subcontractor or Supplier will be performing. The list shall contain the

name and telephone number of the Subcontractor or Supplier and the category of work to be performed by the Subcontractor, or the materials or equipment to be furnished by the Supplier.

16.3 The Bidder's attention is directed to the provisions of the Section entitled "Concerning Subcontractors, Suppliers and Others" set forth in the General Conditions which stipulates the percentage of the Work to be performed with the Bidder's own forces. Failure to comply with this requirement may render the Bid non-responsive and may cause its rejection.

[END OF SECTION 00100]

SECTION 00300 – BID FORM

For the complete performance of all Work required by Contract Documents for that project entitled "City of Duvall 275th Ave. NE Complete Streets" the following Bid is submitted.

UNIT PRICES:

Note: Unit prices for all items, all extensions, and the total amount of bid must be shown. Show unit prices in both words and figures, and where conflict occurs, the written description shall prevail. Where conflict occurs between the unit price and the total amount named for any item the unit price shall prevail, and totals shall be corrected to conform thereto.

COVID-19 HEALTH AND SAFETY PLAN (CHSP):

Note: Include preparation and implementation of a project specific COVID-19 health and safety plan within Bid Item No. 1 – Mobilization. See Section 00700 – General Conditions for CHSP requirements.

SCHEDULE A

Item No.	Item Description	Estimated Quantity	Unit Price Dollars/ Cents	Amount Dollars/ Cents
1.	Mobilization \$ _____ Per LS	1 LS		
2.	TESC and Construction Fencing \$ _____ Per LS	1 LS		
3.	Clearing \$ _____ Per LS	1 LS		
4.	Grading incl. Haul \$ _____ Per LS	1 LS		
6.	Sawcutting \$ _____ Per LF	50 LF		
7.	Striping Removal \$ _____ Per LF	95 LF		

Item No.	Item Description	Estimated Quantity	Unit Price Dollars/ Cents	Amount Dollars/ Cents
8.	Concrete Pavement Removal \$_____ Per SY	22 SY		
9.	Curb and Gutter Removal \$_____ Per LF	111 LF		
10.	5/8" Minus Crushed Rock \$_____ Per TN	112 TN		
11.	Concrete Curb and Gutter \$_____ Per LF	93 LF		
12.	Concrete Sidewalk \$_____ Per SY	815 SY		
13.	Detectable Warning Surface \$_____ Per SF	54 SF		
14.	Striping \$_____ Per SF	448 SF		
15.	Landscaping/Property Restoration \$_____ Per LS	1 LS		
16.	Plant Establishment/Maintenance – 1 Year \$_____ Per LS	1 LS		
	Base Bid Total \$_____ in words		Total	\$

Item No.	Item Description	Estimated Quantity	Unit Price Dollars/ Cents	Amount Dollars/ Cents
Add. #1	Installation of RRFBs and Associated Hardware \$ _____ Per LS	1 LS		
	Add. #1 Total \$ _____ in words		Total	\$
Add. #2	Installation of Exercise Equipment \$ _____ Per LS	1 LS		
	Installation of Exercise Area Curb and Engineered Wood Fiber Surfacing \$ _____ Per LS	1 LS		
	Add. #2 Total \$ _____ in words		Total	\$
Add. #3	Installation of PSE Conduit and Street Light Pole Tubes \$ _____ Per LS	1 LS		
	Add. #3 Total \$ _____ in words		Total	\$

The Bidder agrees that the foregoing Base Bid and Alternate Bid Items do not include the CITY's obligation for Washington State sales tax. The CITY will pay the successful bidder Washington State Sales Tax @ 8.8% as appropriate on the contract amount.

Name of person, firm or corporation submitting bid

END OF BID SCHEDULE

[END OF SECTION 00300]

BID FORM
00300-1

SECTION 00310 – BID SECURITY

BID SECURITY DESCRIPTION

This Section contains a form that may be used by the Bidder for the Bid Security. Refer to the Instructions to Bidders for specific requirements.

BID GUARANTY BOND

KNOW ALL PERSONS BY THESE PRESENTS THAT: _____, hereinafter called "Principal", and _____, hereinafter called the "Surety", are jointly and severally held and firmly bound unto the City of Duvall, hereinafter called "Owner", in the penal sum of five percent (5%) of the aggregate of the Bid proposal of Principal for the Work, this sum not to exceed _____ dollars lawful money of the United States, for the payment whereof unto Owner, Principal and Surety jointly and severally bind themselves forever firmly by these presents.

WHEREAS, said Principal is herewith submitting a Bid for the fulfillment of all Work required for the **City of Duvall 275th Ave. NE Complete Streets** project.

NOW, THEREFORE, the condition of this obligation is such that if Principal is awarded a contract for the Work, and if Principal within the time specified in the Contract Documents enters into, executes, and delivers to Owner a signed Agreement and the Performance Bond, Payment Bond and appropriate insurance certificates as required by the Contract Documents, then this obligation shall be void. If, however, the Principal fails or refuses to furnish, execute and deliver to Owner said Agreement, Performance Bond, Payment Bond and appropriate insurance certificates as required, and within the time required, by the Contract Documents, then Principal and Surety shall forfeit to Owner the penal sum hereof.

AND IT IS HEREBY DECLARED AND AGREED the Surety shall be liable under this obligation as Principal, and that nothing of any kind or nature whatsoever that will not discharge Principal shall operate as a discharge or a release of liability of Surety.

IT IS HEREBY FURTHER DECLARED AND AGREED that this obligation shall be binding upon and inure to the benefit of Principal, Surety and Owner and their respective heirs, executors, administrators, successors and assigns.

SIGNED AND SEALED THIS ____ day of _____, 20____.

Seal

Name of Contractor

By: _____
Signature

Print Name

Its: _____

Seal

Name of Surety

By: _____
Signature

Print Name

Its: _____

[Power of Attorney Must be Attached]

Surety's Mailing Address

Surety's Phone and Fax Number

BID SECURITY DEPOSIT STATEMENT

Herewith find the deposit in the form of a certified check, cashiers check or cash in the amount of \$_____, which amount is not less than five percent (5%) of the total Bid.

Name of Contractor

By: _____
Signature

Print Name

Its: _____

[END OF SECTION 00310]

SECTION 00500 – AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20____, by and between The City of Duvall, hereinafter called "City" and _____, hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor shall commence and complete the construction of City of Duvall 275th Ave. NE Complete Streets (the "Project") in accordance with the Contract Documents.
2. The Contractor shall provide all labor, materials, tools, equipment, transportation, supplies and any other services necessary for the construction and completion of the Project.
3. The Contractor shall fully complete all Work required by the Contract Documents within **90** days of the date set forth in the Notice to Proceed, unless the period for completion is extended otherwise in accordance with the Contract Documents.
4. The City and Contractor recognize that time is of the essence of this Agreement and that the City will suffer financial loss and inconvenience if the Work is not completed within the time specified in Section 3 of this Agreement, plus any extensions allowed by the Contract Documents. They also recognize the delays, expense and the difficulties involved in proving in a legal proceeding the actual loss suffered by the City if the Work is not completed on time. Accordingly, instead of requiring any such proof, the City and Contractor agree that as liquidated damages for delay (but not as a penalty) the Contractor shall pay the City \$1,000.00 for each calendar day that expires after the date for full completion of the Work until full completion is obtained.
5. The Contractor agrees to perform all of the Work described in the Contract Documents and comply with the terms therein for the principal sum of sum of \$_____ plus Washington State sale tax (8.8%) of _____ for a total amount of _____..
6. The term "Contract Documents" means and includes the following: Advertisement for Bids, Instructions to Bidders, Bid, Bid Bond, Payment Bond, Performance Bond, this Agreement, General Conditions, Supplementary General Conditions (if any), General Requirements, Notice of Award, Notice to Proceed, Change Orders, Addenda, Drawings and Specifications.
7. The City shall pay to the Contractor in the manner and at such times as set forth in the Contract Documents such amounts as required by the Contract Documents.

8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement of which shall be deemed an original on the date first above written.

Signature

CITY OF DUVALL – Mayor

Print Name

Print Company Name and Title

[END OF SECTION 00500]

**SECTION 00590 –
DECLARATION OF OPTION FOR MANAGEMENT OF
STATUTORY RETAINED PERCENTAGE**

Do not execute the Declaration of Option for Management of Statutory Retained Percentage as part of the Bid submission. It is to be submitted once award of the contract has been made and the Agreement has been executed. Sample forms for the escrow agreements are at the end of this Section.

DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY RETAINED PERCENTAGE

- A. I hereby elect to have the retained percentage of this Agreement held in a fund by the City of Duvall until final acceptance of the Work and all required releases are obtained.

Signed: _____ Date: _____

- B. I hereby elect to have City of Duvall place the retained percentage of this Agreement in an interest bearing account from time to time as such retained percentage accrues in accordance with RCW 60.28.011.

I hereby designate _____ as the repository for the escrow of said funds.

I hereby further agree to be fully responsible for payment of all costs or fees incurred as a result of placing said retained percentage in escrow as authorized by statute. The City of Duvall shall not be liable in any way for any costs or fees in connection therewith.

Signed: _____ Date: _____

- C. I hereby elect to have the City of Duvall invest the retained percentage of this Agreement from time to time as such retained percentage accrues in accordance with RCW 60.28.011.

I hereby designate _____ as the repository for the escrow of said funds.

I hereby further agree to be fully responsible for payment of all costs or fees incurred as a result of placing said retained percentage in escrow and investing it as authorized by statute. The City of Duvall shall not be liable in any way for any costs or fees in connection therewith.

Signed: _____ Date: _____

ESCROW NO. _____
PUBLIC BODY: City of Duvall
CONTRACT NO. _____
COMPLETION DATE _____

INTEREST BEARING ACCOUNT ESCROW AGREEMENT

TO: _____
(Bank Name)

(Address)

(City, State, Zip Code)

(Phone and Fax)

The undersigned, _____ (the "Contractor"), has entered into written agreement dated _____ (the "Contract") with the City of Duvall (the "City") for a construction project known as _____ (the "Project").

Under the terms of the Contract, and pursuant to Chapter 60.28 RCW, the Contractor and City have agreed to deposit any and all retainage from the Contract into an interest bearing depository account (the "Retainage Account") with _____ (the "Bank"), subject to the following instructions:

INSTRUCTIONS

1. The Contractor and the City agree to send all notices and instructions to the Bank at the above listed address. The Contractor and the City understand that notices sent elsewhere may not reach the Bank.
2. The Bank shall have the right to withhold funds from any payment to the Contractor from the retainage Account which the Bank deems reasonable to cover items not finally paid, deposits which are not fully collected, transactions which have been previously executed or guaranteed by the Bank, or any other amount which the Contractor may owe to the Bank.
3. The Contractor agrees to pay the Bank for its services hereunder in accordance with the Bank's usual and customary schedule for the same. Payment of all fees incurred by the Bank shall be the sole and separate responsibility of the Contractor, and shall not be deducted from the Retainage Account. If the Bank is made a party to any litigation with respect to the Retainage Account, or if the conditions of this agreement are not promptly fulfilled, or if the Bank is required to render any service not provided for in these instructions, the Bank shall be entitled to reasonable compensation from the Contractor for all costs and expenses, including attorney fees, occasioned by such default, delay, controversy or litigation.
4. If conflicting demands are made upon the Bank by the Contractor, the City, or any third party with respect to this agreement or the deposit of any funds in the Retainage Account, the Bank may, in its sole discretion and without liability, (a) hold any funds in the Retainage Account pending (i) its determination of the rights of the parties, (ii) receipt of a final order from a court having jurisdiction directing or authorizing the Bank to make payment, (iii) the party making notice of the conflict withdrawing the notice, (iv) receipt of other assurances or indemnities satisfactory to the Bank; (b) suspend or terminate its services under this agreement; and/or (c) seek judicial relief, including the filing of interpleader or other actions, to determine the proper accounting or disposition of any funds in the Retainage Account.
5. The Contractor agrees to indemnify and hold harmless the Bank from and against all claims, losses, liabilities, damages or costs (including reasonable attorney fees) which the Bank may incur and which result directly or indirectly from the Bank's compliance with the instructions contained herein.

6. The Bank is instructed, on reasonable request, to provide to the City any information about the Retainage Account, which the Bank would make available to the Contractor, including regular statements.

7. Promptly upon written notification by the City to do so, pursuant to Chapter 60.28 RCW, the Bank shall release to the Contractor the specified funds in the Retainage Account (including accrued interest).

8. This agreement and these instructions shall become effective after execution by the Contractor, the City and the Bank, and when a fully executed original has been delivered to the Bank. This agreement and these instructions shall remain in full force and effect until the Bank receives written notice of revocation from the City. The Bank may comply with the written instructions from the Contractor or the City in regard to the investment type (e.g. time deposit, length of term, or other interest bearing deposit), but any time deposits shall mature on or before the date set for completion of the Contract, including extensions thereof.

9. This instrument contains the entire agreement by and among the Bank, the Contractor and the City with respect to the Retainage Account, and the Bank is not a party to nor bound by any other instrument or agreement. The Bank shall not be required to take notice of any default or any other matter, not be bound by nor required to give notice or demand, or required to take any action whatever except as expressly provided herein. The Bank shall not be liable for any loss or damage not caused by the Bank's own negligence or willful misconduct.

10. The foregoing provisions shall be binding upon the assigns, successors, personal representatives and heirs of the parties hereto.

The undersigned have read and hereby approve the instructions as given above governing the administration of the Retainage Account and do hereby execute this Agreement on this _____ day of _____, 20____.

(Contractor)

By _____
Its _____

(Address)

(Tax I.D. Number)

Telephone _____
Facsimile _____

CITY OF DUVALL

By _____
Its _____

(Address)

Telephone _____
Facsimile _____

The above agreement and instructions are received and approved by the Bank this ___ day of _____, 20____.

(Name of Bank)

By_____

Its_____

Telephone_____

Facsimile_____

ESCROW NO. _____

PUBLIC BODY: City of Duvall

CONTRACT NO. _____

COMPLETION DATE _____

INVESTMENT ESCROW AGREEMENT

TO: _____
(Bank Name)

(Address)

(City) (State) (Zip code)

(Phone) (Fax)

This Investment Escrow Agreement is for the investment of the retained percentages of the above contract in accordance with RCW 60.28.011.

The Undersigned, _____, hereinafter referred to as the Contractor, has directed the City of Duvall, hereinafter referred to as the Public Body, to deliver to the Bank its warrants, checks or drafts which shall be payable to the Bank, and are to be held and disposed of by the Bank in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

1. Upon delivery to the Bank, warrants, checks or drafts made payable to the Bank shall be endorsed by the Bank and forwarded for collection. The moneys from all such warrants, checks or drafts received hereunder shall be used by the Bank to purchase bonds or other securities selected by the Contractor and approved by the Public Body. For the purpose of each such purchase, the Bank may follow the last written direction received by the Bank from the Contractor, provided said direction otherwise conforms with the restrictions on investments recited herein. Attached is a list of such bonds or other securities approved by the Public Body. Other bonds or securities, except stocks, may be selected by the Contractor, subject to express written approval of the Public Body.
2. The investments selected by the Contractor, approved by the Public Body and purchased by the Bank must mature on or prior to the date set for the completion of the contract, including extensions thereof. After the completion date of the contract, the Bank shall not be required to invest the money held by the Bank and derived from the sale or redemption of matured investments until authorized to do so by the Contractor and the Public Body, which authorization shall include the completion date of the extension.
3. When and as interest on the securities held by the Bank pursuant to this agreement accrues and is paid, the Bank shall collect such interest and forward it to the Contractor at its address designated below unless otherwise directed by the Contractor.
4. The Bank are not authorized to deliver to the Contractor all or any part of the securities held by the Bank pursuant to this agreement (or any moneys derived from the sale of such securities, or the negotiation of the Public body's

warrants) except in accordance with written instructions from the Public Body. Compliance with such instructions shall relieve the Bank of any further liability related thereto.

5. **The Bank is directed to mail on not less than a monthly basis a copy of all statements regarding the receipt and disposition of all funds received by the Bank pursuant to this agreement to the Public Body at the address set forth below.**
6. The Contractor agrees to pay the Bank for the Banker services hereunder compensation in accordance with the Banker published schedule of Escrow Fees-Public Works Contracts. Payments of all fees shall be the sole responsibility of the Contractor and shall not be deducted from any property placed with the Bank pursuant to this agreement until and unless the Public Body directs the release to the Contractor of the securities and moneys held hereunder whereupon the Bank shall be granted a first lien upon such property released and shall be entitled to reimburse the Banker self from such property for the entire amount of the Banker fees as provided for herein above. In the event that the Bank are made a party to any litigation with respect to the property held by the Bank hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that the Bank are required to render any service not provided for in these instructions, or that there is any assignment of the interests of this escrow or any modification hereof, the Bank shall be entitled to reasonable compensation for such extraordinary services from the Contractor and reimbursement from the Contractor for all costs and expenses, including attorney fees occasioned by such default, delay, controversy or litigation.
7. This agreement shall not be binding until executed by the Contractor and the Public Body and accepted by the Bank.
8. This instrument contains the entire agreement between the Bank, the Contractor and the Public Body with respect to this escrow and the Bank are not a party to nor bound by any instrument or agreement other than this; the Bank shall not be required to take notice of any default or any other matter, nor be bound by nor required to give notice or demand, nor required to take any action whatever except as herein expressly provided; the Bank shall not be liable for any loss or damage not caused by the Banks own negligence or willful misconduct.
9. The foregoing provisions shall be binding upon the assigns, successors, personal representatives and heirs of the parties hereto.

The undersigned have read and hereby approve the instructions as given above governing the administration of the Retainage Account and do hereby execute this agreement on this ____ day of _____, 20____.

(Contractor)

By: _____

Its: _____

(Address)

(Tax Identification No.)

Telephone: _____

Facsimile: _____

City of Duvall

By: _____

Its: _____

(Address)

Telephone _____

Facsimile _____

The above agreement and instructions are received and approved by the Bank this _____ day of _____, 20____.

(Name of Bank)

By: _____

Its: _____

Telephone: _____

Facsimile: _____

[END OF SECTION 00590]

SECTION 00610 – PERFORMANCE BOND

PART 1 – GENERAL

1.1 DESCRIPTION

This Section is the Performance Bond Form that is required to be completed by the successful Bidder as stated in the Contract Documents. Do not execute the Performance Bond as part of the Bid submission.

1.2 PERFORMANCE BOND FORM

KNOW ALL MEN BY THESE PRESENTS: That, WHEREAS, the City of Duvall, State of Washington, on _____ 20____, has awarded to _____ hereinafter designated as the "Principal", an Agreement for the **City of Duvall 275th Ave. NE Complete Streets** the terms and provisions of which Agreement are incorporated herein by reference, and;

WHEREAS, said Principal is required under the terms of said Agreement to furnish a bond for the faithful performance of said Agreement;

NOW, THEREFORE, we, the Principal and _____ as "Surety", are held and firmly bound unto the City of Duvall, State of Washington, in the penal sum of _____ Dollars (\$ _____), lawful money of the United States, being one hundred percent (100%) of the Contract Price, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions, and agreements in the said Agreement and any alterations made as therein provided, on their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City of Duvall, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligations on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement, or to the work, or to the Specifications.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this _____ day of _____, 20____, the name and corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

[Signatures on Next Page]

Contractor

Surety

Signature

Signature

Print Name

Print Name

Title

Its: Attorney-in-Fact

[Power of Attorney Must be Attached]

**Name and Address Local
Office of Agent**

APPROVED:

CITY OF DUVALL

By: _____

Its: _____

Date: _____

[END OF SECTION 00610]

SECTION 00620 – PAYMENT BOND

PART 1 – GENERAL

1.1 DESCRIPTION

This section is the Payment Bond Form that is required to be completed by the successful Bidder as stated in the Contract Documents. Do not execute the Payment Bond as part of the Bid submission.

1.2 PAYMENT BOND FORM

KNOW ALL MEN BY THESE PRESENTS: That, WHEREAS, the City of Duvall, State of Washington, on the ____ of _____, 20____, has awarded to _____, hereinafter designated as "Principal", an Agreement for the construction of **City of Duvall 275th Ave. NE Complete Streets**, the terms and provisions of which Agreement are incorporated herein by reference, and;

WHEREAS, said Principal is required to furnish a bond in connection with said Agreement, providing that if said Principal, or any of its subcontractors, shall fail to pay for any labor, materials, equipment, provisions, provender or other supplies or teams used in, upon, for, or about the performance of the Work contracted to be done, or any work or labor done thereon of any kind, the Surety of this bond will pay the same to the extent hereinafter set forth;

NOW, THEREFORE, we, the Principal and _____, as "Surety", are held and firmly bound unto the City of Duvall, State of Washington, in the penal sum of _____ Dollars (\$_____), lawful money of the United States, being one hundred percent (100%) of the Contract Price for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

NOW, THEREFORE, if the above bounden Principal or any of its subcontractors shall promptly make payment in full all amounts due to all persons who are entitled to assert a claim pursuant to Chapter 39.08 RCW, including, without limitation, all persons supplying labor, material, equipment, provisions, provender or any other supplies or teams in the prosecution of the work provided for in said Agreement, and any and all duly authorized modifications of said Agreement that may hereafter be made, then this obligation shall be void; otherwise, this obligation shall remain in full force and effect; and if the bounden Principal or any of its subcontractors fails to promptly pay any of such persons or amounts due with respect to any work or labor performed, or materials or equipment supplied, by any such claimant, the Surety will pay for the same, in an amount not exceeding the sum specified in this bond.

This bond shall insure to the benefit of any and all persons, companies and corporations entitled to file claims pursuant to Chapter 39.08 RCW, so as to give a right of action to them or their assigns in any suit brought upon this bond.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement, or to the Work to be performed thereunder, or the Specifications accompanying the same shall in any wise affect its obligations on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement, or to the Work or to the Specifications.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this ____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Contractor

Surety

Signature

Signature

Print Name

Print Name

Title

Its: Attorney-in-Fact
[Power of Attorney Must be Attached]

**Name and Address Local
Office of Agent**

APPROVED:

CITY OF DUVALL

By: _____

Its: _____

Date: _____

[END OF SECTION 00620]

SECTION 00630 – INSURANCE QUESTIONNAIRE

NOTE: THIS QUESTIONNAIRE MUST BE COMPLETED AND ATTACHED TO THE CERTIFICATE OF INSURANCE

For _____
(Name of Insured)

Project Name _____

Project Owner _____

ARE THE FOLLOWING COVERAGES AND/OR CONDITIONS IN EFFECT?		
	YES	NO
The Policy form is ISO Commercial General Liability from CG 00 01 or CG 00 02 (circle one). If NO , attach a copy of the policy with required coverage clearly identified.		
Products and Completed Operation coverage.		
Cross Liability Clause (or equivalent wording).		
Personal Injury Liability (with employee exclusion deleted).		
Broad Form Property Damage with X, C, U Hazards included		
Blanket Contractual Liability coverage applying to this Contract		
Employers Liability – Stop Gap		

Deductibles or SIR's GL _____ AL _____ Excess _____

Insurer's Best Rating GL _____ AL _____ Excess _____

This Questionnaire is issued as a matter of information. This Questionnaire is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies indicated on the attached Certificate of Insurance.

Agency/Broker

Completed by (print or type)

Address

Completed by (signature)

Name of Person to Contact

Telephone Number

[END OF SECTION 00630]

SECTION 00700 – GENERAL CONDITIONS

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SECTION 00700 – GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated in this Article 1 which meanings are applicable to both the singular and plural thereof. If a word which is entirely in upper case in these definitions is found in lower case in the Contract Documents, then the lower case word will have its ordinary meaning.

Addenda - Written or graphic instruments issued prior to the opening of Bids which make additions, deletions, or revisions to the Contract Documents.

Agreement - The written contract between the CITY and the CONTRACTOR covering the Work to be performed together with any other documents attached to the Agreement and made a part thereof as provided therein (See Section 00500).

Application for Payment - The form accepted by the PROJECT REPRESENTATIVE which is to be used by the CONTRACTOR to request progress payments or final payment and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the price or prices for the Work.

Bonds - Bid, Performance, Payment and Maintenance Bonds and other instruments of security.

Change Order - A document recommended by the PROJECT REPRESENTATIVE, which is signed by the CONTRACTOR and the CITY, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the effective date of the Agreement.

Change Proposal – If submitted by the PROJECT REPRESENTATIVE, a request for an estimate by CONTRACTOR for a proposed change in the Work. If submitted by CONTRACTOR, a proposal for a change in the Work. A Change Proposal is normally the process for initiating a Change Order. (See Division 1).

CITY - The City of Duvall. Where the term OWNER or Owner is used in the Contract Documents, it shall also mean the City of Duvall.

Clarification - A document issued by the PROJECT REPRESENTATIVE to the CONTRACTOR that interprets the requirement(s) and/or design intent of the Contract Documents, which may not represent an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Time.

Contract Documents - The Advertisement for Bids, Instructions to Bidders, Bid Forms (including the Bid, Bid Schedule(s), Information Required of Bidder, Bid Security, and all required certificates, affidavits and other documentation), Agreement, Performance Bond, Payment Bond, Maintenance Bond General Conditions, Supplementary General Conditions (if any), General Requirements, Technical Specifications, Drawings, all Addenda, and Change Orders executed pursuant to the provisions of the Contract Documents. Shop Drawings are not Contract Documents.

Contract Price - The total monies payable by the CITY to the CONTRACTOR under the terms and conditions of the Contract Documents.

Contract Time - The number or numbers of successive calendar days or dates stated in the Contract Documents for the completion of the Work.

CONTRACTOR - The individual, partnership, corporation, joint-venture, or other legal entity with whom the CITY has executed the Agreement.

Day - A calendar day of 24 hours measured from midnight to the next midnight.

Defective Work - Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or Work that has been damaged prior to the PROJECT REPRESENTATIVE's recommendation of final payment.

Drawings - The drawings, plans, maps, profiles, diagrams, and other graphic representations which indicate the character, location, nature, extent, and scope of the Work. Shop Drawings are not Drawings as so defined.

Field Order or Field Directive - An order issued by the PROJECT REPRESENTATIVE or City Engineer which may or may not involve a change in the Work. Usually ordered in the case of an emergency or for a minor clarification of the Work.

General Requirements - Division 1 of the Specifications.

Hazardous Waste - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

Laws and Regulations - Any and all applicable laws, rules, regulations, ordinances, codes, and/or orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

Maintenance Bond - Bond required by the Contract Documents to secure the one (1) year guarantee of the CONTRACTOR following full completion of the Work.

Notice of Award - The written notice by the CITY to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein within the time specified, the CITY will enter into an Agreement.

Notice of Completion - A form signed by the PROJECT REPRESENTATIVE and the CONTRACTOR recommending to the CITY that the Work is Substantially Complete and fixing the date of Substantial Completion.

Notice to Proceed - The written notice issued by the CITY to the CONTRACTOR authorizing the CONTRACTOR to proceed with the Work and establishing the date of commencement of the Contract Time.

Partial Utilization - Use by the CITY of a substantially completed part of the Work for the purpose for which it is intended prior to Substantial Completion of all the Work.

Payment Bond and Retention/Retainage - Forms of security required by Washington State statutes held to secure the payment of obligations by the CONTRACTOR to pay taxes and obligations to subcontractors, suppliers, and laborers.

Performance Bond - Form of security required by Washington statute held to secure the CONTRACTOR'S faithful performance and completion of the Work.

Project - The total construction project of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

PROJECT REPRESENTATIVE - The individual, partnership, corporation, joint-venture, or other legal entity named as such by the CITY. Where the term "Architect" and/or "Engineer" is used in the Technical Specifications (Divisions 1 through 17 of the Contract Documents), it is synonymous with the term Project Representative. For purposes of this Contract, the PROJECT REPRESENTATIVE shall be:

**Alana McCoy, Project Manager, 14525 Main Street, Duvall, WA 98019, 425-939-8045
alana.mccoy@duvallwa.gov.**

Samples - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

Shop Drawings - All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for the CONTRACTOR and submitted by the CONTRACTOR to illustrate some portion of Work.

Site - Lands or other areas designated in the Contract Documents as being furnished by the CITY for the performance of the construction, storage, or access.

Specifications - (Same definition as for Technical Specifications hereinafter).

Subcontractor - An individual, partnership, corporation, joint-venture, or other legal entity having a direct contract with the CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

Substantial Completion - The time at which the Work (or specified part) has progressed to the point where it is sufficiently complete, in accordance with the Contract Documents, as evidenced by Notice of Completion so that the Work (or specified part) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially-completed" as applied to any Work refers to substantial completion thereof.

Supplementary General Conditions - The part of the Contract Documents which make additions, deletions, or revisions to these General Conditions.

Supplier - A manufacturer, fabricator, distributor, materialman, or vendor having a direct contract with the CONTRACTOR or with any Subcontractor to furnish materials, equipment, or product to be incorporated in the Work by the CONTRACTOR or any Subcontractor.

Technical Specifications - Divisions 1 through 17 of the Contract Documents consisting of the General Requirements and written technical descriptions of products and execution of the Work.

Utilities or utilities - All pipelines, conduits, ducts, cables, wires, tracks, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground or above the ground to furnish any of the following services or materials: water, sewage, sludge, drainage, fluids, electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, traffic control, or other control systems.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. The description of the Work contained in the Contract Documents is summarized and may not include specific reference to all incidental work elements required to complete the Agreement. The Work includes all labor, materials, equipment and incidentals required for completion of the Work as shown on the Drawings and specified in the Contract Documents.

ARTICLE 2- PRELIMINARY MATTERS

2.1 DELIVERY OF BONDS AND INSURANCE CERTIFICATES

- A. When the CONTRACTOR delivers the signed Agreement to the CITY, the CONTRACTOR shall also deliver to the CITY such Bonds and insurance policies and certificates as the CONTRACTOR may be required to furnish in accordance with the Contract Documents. However, CONTRACTOR shall not be required to submit the Maintenance Bond required by the General Requirements until CONTRACTOR's final Application for Payment is submitted.

2.2 COPIES OF DOCUMENTS

- A. The CITY will furnish to the CONTRACTOR five (5) copies of the Contract Documents which may include bound reduced drawings, if any, together with five (5) sets of full-scale Drawings. Additional quantities of the Contract Documents will be furnished at reproduction cost plus mailing cost if copies are mailed.

2.3 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED

- A. The Contract Time will start to run on the commencement date stated in the Notice to Proceed.

2.4 COVID-19 HEALTH AND SAFETY PLAN (CHSP)

- A. The CONTRACTOR shall prepare a project specific COVID-19 health and safety plan (CHSP) in accordance with WSDOT General Special Provisions 1-07.1.OPT4.GR1, 1-07.4(2).OPT2.GR1 and 1-08.4.OPT4.GR1 and submit to the CITY for written approval prior to Work being done at the Site. Mobilization for the Work shall not take place prior to the CITY's approval of the CHSP.

2.5 STARTING THE WORK

- A. The CONTRACTOR shall begin to perform the WORK on the commencement date stated in the Notice to Proceed, but no Work shall be done at the Site prior to said commencement date. Mobilization for the Work prior to the commencement date stated in the Notice to Proceed may only be performed with the CITY's prior written approval thereof.
- B. Before undertaking each part of the Work, the CONTRACTOR shall review the Contract Documents in accordance with Section 3.3 of the General Conditions.

2.6 PRE-CONSTRUCTION CONFERENCE

- A. The CONTRACTOR is required to attend a "Pre-Construction Conference". This conference will be attended by the PROJECT REPRESENTATIVE, and others as appropriate in order to discuss the Work in accordance with the Contract Documents.
- B. The CONTRACTOR's initial schedule submittals for shop drawings, obtaining permits, plan of operation, Progress Schedule and Schedule of Values will be reviewed and finalized. As a minimum, the CONTRACTOR's representatives should include its project manager and site superintendent. The CONTRACTOR should plan on this meeting taking no less than 4 hours. If the submittals are not finalized at the end of the meeting, additional meetings will be held so that the submittals can be finalized prior to the submittal of the first Application for Payment. No Application for Payment will be processed prior to receiving acceptable initial submittals from the CONTRACTOR.

ARTICLE 3 - INTENT AND USE OF CONTRACT DOCUMENTS

3.1 INTENT

- A. The Contract Documents comprise the entire agreement between the CITY and the CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- B. It is the intent of the Contract Documents to describe the Work, functionally complete, to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not called for specifically.
- C. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials, or equipment such words or phrases shall be interpreted in accordance with that meaning unless a definition has been provided in Article 1 of the General Conditions.

3.2 REFERENCE TO STANDARDS

- A. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code shall be effective to change the duties and responsibilities of the CITY, the CONTRACTOR, the PROJECT REPRESENTATIVE, or any of their consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to the CITY, PROJECT REPRESENTATIVE, or any of their consultants, agents, or employees any duty or authority to direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.3 REVIEW OF CONTRACT DOCUMENTS

- A. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual, or code, or of any instruction of any Supplier, CONTRACTOR shall report it to PROJECT REPRESENTATIVE in writing at once, and CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency) until a Clarification, Field Order, or Change Order to the Contract Documents has been issued.
- B. The Technical Specifications are enumerated in the Table of Contents. Numbering of Sections is for identification only and may not be consecutive. CONTRACTOR shall check his/her copies of the Specifications with the Table of Contents to verify that they are complete. CONTRACTOR shall notify the PROJECT REPRESENTATIVE of any incomplete copies.

3.4 ORDER OF PRECEDENCE OF CONTRACT DOCUMENTS

- A. In resolving conflicts resulting from errors or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
 - 1. Permits from other agencies as may be required by law
 - 2. Change Orders

3. Agreement
4. Addenda
5. Contractor's Bid (Bid Form and Bid Schedule)
6. Supplementary General Conditions
7. Advertisement for Bids
8. Instructions to Bidders
9. General Conditions
10. Technical Specifications
11. Referenced Standard Specifications
12. Drawings

B. With reference to the Drawings the order of precedence is as follows:

1. Figures govern over scaled dimensions
2. Detail drawings govern over general drawings
3. Addenda/Change Order drawings govern over any other drawings
4. Drawings govern over standard drawings

3.5 AMENDING CONTRACT DOCUMENTS

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by a Change Order.

3.6 REUSE OF DOCUMENTS

A. Neither the CONTRACTOR, nor any Subcontractor or Supplier, nor any other person or organization performing any of the Work under a contract with the CITY, shall have or acquire any title to or ownership rights in any of the Drawings, Technical Specifications, or other documents used on the Work, and they shall not reuse any of them on any extensions of the Project or any other project without written consent of the CITY.

ARTICLE 4 - SITE OF THE WORK

4.1 AVAILABILITY OF LANDS

A. The CITY will furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the CITY, unless otherwise provided in the Contract Documents. CONTRACTOR's use of the Site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities and field offices. CONTRACTOR shall make provisions to allow for CITY and public access to the Site as may be required by the Contract Documents. Nothing contained in the Contract Documents shall be interpreted as giving the CONTRACTOR exclusive occupancy of the lands or rights-of-way provided. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment; provided, that the CONTRACTOR shall not enter upon nor use any property not under the control of the CITY until a written temporary construction easement agreement has been executed by the CONTRACTOR and the property owner, and a copy of said easement furnished to the PROJECT REPRESENTATIVE prior to said use; and, neither the CITY nor the PROJECT REPRESENTATIVE will be liable for any claims or damages resulting from the CONTRACTOR's trespass on or use of any such properties. The CONTRACTOR shall provide the CITY with a signed release from the property owner confirming that the lands have been satisfactorily restored upon completion of the Work.

- B. CONTRACTOR shall coordinate the use of the Site with the PROJECT REPRESENTATIVE prior to its utilization. The exact locations of staging areas at the Site will be determined at the Pre-construction Conference.

4.2 REPORTS OF PHYSICAL CONDITIONS

- A. Subsurface Explorations: Reference is made to the Information Available to Bidders for identification of those reports of explorations and tests of subsurface conditions at the Site that have been utilized in the preparation of the Contract Documents.
- B. Existing Structures: Reference is made to the Information Available to Bidders for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except underground Utilities referred to in Section 4.3 herein) which are at or contiguous to the Site that have been utilized in the preparation of the Contract Documents.
- C. Neither the CITY nor PROJECT REPRESENTATIVE make any representation as to the completeness of the reports or drawings referred to in Section 4.2 A or B above or the accuracy of any data or information contained therein. The CONTRACTOR may rely upon the accuracy of the technical data contained in such reports and drawings. However, the CONTRACTOR may not rely upon any interpretation of such technical data, including any interpolation or extrapolation thereof, or any non-technical data, interpretations, and opinions contained therein.

4.3 PHYSICAL CONDITIONS - UNDERGROUND UTILITIES

- A. Indicated: The information and data, if any, indicated in the Contract Documents with respect to existing underground Utilities at or contiguous to the Site are based on information and data furnished to the CITY or the PROJECT REPRESENTATIVE by the owners of such underground Utilities or by others. Unless it is expressly provided in the Supplementary General Conditions and/or Technical Specifications, the CITY and the PROJECT REPRESENTATIVE will not be responsible for the accuracy or completeness of any such information or data, and the CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all underground Utilities indicated in the Contract Documents or which may be reasonably expected to be present, for coordination of the Work with the owners of such underground Utilities (including any alteration and/or relocation of the Utilities) during construction, for the safety and protection thereof and repairing any damage thereto resulting from the Work, the costs of all of which are deemed to have been included in the Contract Price.
- B. It is the CONTRACTOR'S responsibility to notify any "one number utility locator service" and/or Utility owners, as required by law, and to assure proper identification and location of the Utilities prior to excavation. The CONTRACTOR'S attention is directed to the requirements of RCW 19.122 et seq.
- C. Not Indicated: If an underground Utility is uncovered or revealed at or contiguous to the Site which was not indicated in the Contract Documents and which the CONTRACTOR could not reasonably have been expected to be aware of, the CONTRACTOR shall identify the owner of such underground Utility and give written notice thereof to that owner and shall notify the PROJECT REPRESENTATIVE.

4.4 DIFFERING SITE CONDITIONS

- A. The CONTRACTOR shall notify the PROJECT REPRESENTATIVE, in writing, of the following unforeseen conditions, hereinafter called Differing Site Conditions, promptly upon their discovery (but in no event later than 5 calendar days after their discovery) and before they are disturbed:

1. Subsurface or latent physical conditions at the Site of the Work differing materially from those indicated, described, or delineated in the Contract Documents, including those discussed in Sections 4.2, 4.3, and 4.5; and
 2. Unknown physical conditions at the Site of the Work of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.
- B. The PROJECT REPRESENTATIVE will review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto, and advise the CITY, in writing, of the PROJECT REPRESENTATIVE's findings and conclusions.
- C. If the CITY concludes that because of newly discovered conditions a change in the Contract Documents is required, a Change Order will be issued as provided in the Contract Documents to reflect and document the consequences of the difference.
- D. In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such difference. If the CITY and the CONTRACTOR are unable to agree as to the amount or length thereof, a claim may be made therefore as provided in Articles 10 and 11.
- E. The CONTRACTOR's failure to give notice of Differing Site Conditions within 5 calendar days of their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith, whether direct or consequential in nature.

4.5 HAZARDOUS MATERIALS

- A. Reference is made to the Information Available to Bidders for identification of those reports and drawings relating to Asbestos, Hazardous Waste, PCBs, Petroleum and/or Radioactive Material identified at the Site that have been utilized in the preparation of the Contract Documents.
- B. The CITY shall be responsible for any Asbestos, Hazardous Waste, PCBs, Petroleum, or Radioactive Material uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the Site or which may result in substantial cost to remediate or contain pursuant to applicable Laws and Regulations. The CITY will not be responsible for any such material brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.
1. Upon discovery of any Asbestos, Hazardous Waste, PCBs, Petroleum, or Radioactive Material, the CONTRACTOR shall immediately stop all Work in any area affected thereby (except in an emergency) and notify the PROJECT REPRESENTATIVE (and thereafter confirm such notice in writing). CONTRACTOR shall not be required to resume any Work in any such affected area until after the CITY has obtained any required permits related thereto and delivered to CONTRACTOR special written notice. Such written notice will specify that such condition and any affected area is or has been rendered safe for the resumption of the Work or specify any special conditions under which the Work may be resumed safely. If the CITY and CONTRACTOR cannot agree as to entitlement to or the amount or extent of adjustment, if any, in Contract Price or Contract Time as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefore as provided in Articles 10 and 11.

2. If, after receipt of such special written notice, CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under special conditions, then the CITY may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If the CITY and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work then either party may make a claim therefore as provided in Articles 10 and 11. The CITY may have such deleted portion of the Work performed by CITY's own forces or others in accordance with Article 7.
- C. The provisions of Sections 4.2, 4.3, and 4.4 are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material uncovered or revealed at the Site. Instead, the provisions of this Section 4.5 shall control.
- D. If materials that contain hazardous substances or mixtures are required for the Work, a Material Safety Data Sheet shall be made available at the Site by the CONTRACTOR for every hazardous product used.
- E. Material usage shall strictly conform to OSHA safety requirements and all manufacturer's warnings and application instructions listed on the Material Safety Data Sheet and on the product container label.
- F. The CONTRACTOR shall be responsible for the exchange of Material Safety Data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.
- G. The CONTRACTOR shall notify the PROJECT REPRESENTATIVE if it considers a specified product or its intended use to be unsafe. This notification must be given to the PROJECT REPRESENTATIVE prior to the product being ordered, or if provided by some other party, prior to the product being incorporated in the Work.

4.6 REFERENCE POINTS

- A. If applicable, the CITY will provide one bench mark, near or on the Site of the Work, and will provide two points near or on the Site to establish a base line for use by the CONTRACTOR for alignment control. Unless otherwise specified in the Supplementary General Conditions or the Technical Specifications, the CONTRACTOR shall furnish all other vertical and horizontal surveying, staking, lines, grades, and bench marks required for proper execution of the Work.
- B. The CONTRACTOR shall preserve all bench marks, stakes, and other survey marks, and in case of their removal or destruction by any party other than the CITY, the CONTRACTOR shall be responsible for the accurate replacement of such reference points by personnel qualified under the applicable state codes governing land surveyors.

ARTICLE 5 – BONDS, INSURANCE AND INDEMNIFICATION

5.1 BONDS (NOT APPLICABLE)

- A. The CONTRACTOR shall furnish Performance and Payment Bonds, each in the amount of the Contract Price, as security for the faithful performance and payment of all the CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until full completion of all Work and the expiration of any claim periods provided for by Chapters 39.08 and 60.28 RCW. Upon full completion of all Work and at the time of CONTRACTOR's final Application for Payment, CONTRACTOR shall provide a Maintenance Bond as required by the Contract Documents. The

CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary General Conditions.

- B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as the same may be amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- C. If the surety on any Bond furnished by the CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in the State of Washington, the CONTRACTOR shall within 7 days thereafter substitute another Bond and surety, which must be acceptable to the CITY.
- D. All Bonds required by the Contract Documents to be purchased and maintained by CONTRACTOR shall be obtained from surety companies that are duly licensed or authorized in the State of Washington to issue Bonds for public works projects. Such surety companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions.

5.2 INSURANCE

A. DESCRIPTION

CONTRACTOR shall not commence any work until it has obtained, at its own expense, all insurance including the required insurance. CONTRACTOR shall include all costs for insurance in the Bid. CONTRACTOR shall take out, pay for and maintain throughout the duration of the Work and specifically for the Work the following specified insurance.

B. INSURANCE REQUIREMENTS

1. The CONTRACTOR shall obtain and keep in force during the term of the Agreement, Commercial General Liability insurance policies and any and all other insurance, that will fully protect the CITY from any and all losses, costs and damages. Such insurance shall be with insurance companies which have an A.M. Best's rating of "A VII" or better, and who are approved by the Insurance Commissioner of the State of Washington pursuant to Title 48 RCW.
2. Providing of coverages in the stated amounts shall not be construed to relieve the CONTRACTOR from liability in excess of such limits.
3. Prior to the execution of the Agreement, the CONTRACTOR shall purchase a Commercial General Liability insurance policy meeting the requirements set forth by the Contract Documents. The CONTRACTOR shall file with the CITY at the time of execution of the Agreement, a certificate of insurance evidencing and confirming that all required insurance coverages have been obtained and are in force. **The certificate shall be accompanied by such policy endorsements as are necessary to comply with the requirements set forth herein. The certificate must also be accompanied by the Insurance Questionnaire in the form set forth in Section 00630.** Failure of the CONTRACTOR to fully comply with the requirements regarding insurance may be considered a material breach of the Agreement and may be cause for immediate termination of the Agreement and of any and all CITY obligations regarding same.
4. The CONTRACTOR shall not begin work under the Contract Documents until all insurance required by law and the Contract Documents has been obtained and is in effect. Said insurance shall provide coverage to the CONTRACTOR, Subcontractors and the CITY. The coverage so

provided shall protect against claims from bodily injuries, including accidental death, as well as claims for property damages which may arise from any act or omission of the CONTRACTOR, the CONTRACTOR's Subcontractors, or by anyone directly or indirectly employed or retained by either of them to do all or any part of the Work.

5. In the event the CONTRACTOR is required to make corrections on the Work after the Work has been inspected and accepted, it shall obtain at its own expense, and prior to commencement of any corrective work, such insurance coverage as is required herein above for such periods when corrective operations are being performed.
6. The insurance policies shall specifically name the CITY, its elected or appointed officers, officials, employees, volunteers, the Design Engineer and PROJECT REPRESENTATIVE as Insured with regards to damages and defense of claims arising from: (a) activities performed by or on behalf of the CONTRACTOR; or (b) products and completed operations of the CONTRACTOR, or (c) premises owned, leased or used by the CONTRACTOR. The insurance shall be maintained in full force and effect at the CONTRACTOR's expense throughout the term of the Agreement.
7. The commercial general liability and property damage insurance shall include coverage to protect the CONTRACTOR from contingent liability that may arise from operations of its Subcontractors. Also, the CONTRACTOR shall secure certificates of insurance as evidence that each Subcontractor carries insurance to provide coverage under the Contract Documents for the same limits as is required by the CONTRACTOR.
8. The CITY shall be given at least 45 days written notice of cancellation, non-renewal, material reduction or modification of coverage. Such notice shall be by "certified mail".
9. The coverage's provided by the CONTRACTOR's insurance policies are to be primary to any insurance maintained by the CITY, except as respects losses attributable to the sole negligence of the CITY. Any insurance that might cover this Agreement which are maintained by the CITY shall be in excess of the CONTRACTOR's insurance and shall not contribute with it.
10. The CONTRACTOR's insurance policies shall protect each Insured in the same manner as though a separate policy had been issued to each. The inclusion of more than one Insured shall not affect the rights of any Insured as respects any claim, suit or judgment made or brought by or for any other Insured or by or for any employee of any other insured.
11. The General Aggregate provision of the CONTRACTOR's insurance policies shall be amended to show that the General Aggregate Limit of the policies apply separately to this Agreement.
12. The CONTRACTOR's insurance policies shall not contain deductible or self-insured retention's in excess of \$10,000 unless approved by the CITY.
13. The CONTRACTOR's insurance policies shall contain a provision that the CITY has no obligation to report events that might give rise to a claim until a claim has been filed with the CITY's Clerk.
14. The CONTRACTOR shall advise all insurance companies to familiarize themselves with all of the conditions and provisions of the Contract Documents, and it shall waive the right of special notification of any change or modification of the Contract Documents or of extension of time, or of decreased or increased work, or of the termination of the Agreement or of any other act or acts by the CITY or its authorized employees and agents, under the terms of the Contract Documents

and failure to so notify the aforesaid insurance companies of changes shall in no way relieve the insurance companies of their obligation under the Contract Documents.

15. The CONTRACTOR shall maintain Workers' Compensation Insurance and/or Longshore and Harbor Workers Insurance as required by State or Federal statute, for all of their employees to be engaged in work on the Work under the Agreement and in case any such work is sublet, the CONTRACTOR shall require the Subcontractor similarly to provide Workers' Compensation Insurance and/or Longshore and Harbor Workers' Insurance for all of the latter's employees engaged in such work. The CONTRACTOR's Labor & Industries account number shall be noted on the Certificate of Insurance.
16. Workmen's Occupational Disease Insurance shall be taken out covering all persons whom the CONTRACTOR may employ in carrying out the Work contemplated under the Agreement.
17. In the event any class of employees engaged in the Work under the Agreement is not covered under Worker's Compensation Insurance or Longshore and Harbor Workers' Insurance as required by State and Federal statute, the CONTRACTOR shall maintain and cause each Subcontractor to maintain Employer's Liability Insurance for limits of at least \$1,000,000 for each employee for disease or accident.
18. The CONTRACTOR shall file with the CITY three copies of an employer's first report of injury or illness immediately following any incident requiring the filing of a report during the prosecution of the Work under the Agreement. The CONTRACTOR shall also furnish to the CITY three copies of the employer's first report of injury or illness involving any Subcontractor on the Work.
19. The CONTRACTOR shall be solely and completely responsible for safety and safety conditions on the job Site, including the safety of all persons and property during performance of the Work. The services of the CITY's or its agents' or consultants' personnel in conducting construction review of the CONTRACTOR's performance is not intended to include review of the adequacy of the CONTRACTOR's work methods, equipment, bracing, scaffolding, or trenching, or safety measures in, on, or near the Site. The CONTRACTOR shall provide safe access for the CITY and its inspectors to adequately inspect quality of Work and the conformance with Contract Documents.
20. The CONTRACTOR shall be solely and completely responsible to perform all Work and furnish all material in strict compliance with all applicable State, City, County and Federal laws, regulations, ordinances, orders and codes. The CONTRACTOR's attention is directed to the requirements of the Washington Industrial Safety and Health Act, WISHA, RCW 49.17.
21. The CITY will not pay any progress payments until the CONTRACTOR has fully complied with this Section. This remedy is not exclusive and the CITY may take such other action as is available under other provisions of the Contract Documents, or otherwise in law.
22. The contractual coverage of the CONTRACTOR's policy shall be sufficiently broad enough to insure the provisions of the Hold Harmless Agreement and/or Indemnification Agreements of the Contract Documents.

TYPES AND LIMITS OF INSURANCE REQUIRED:

1. Commercial General Liability
\$2,000,000 each occurrence Bodily Injury and Property Damage Liability
\$2,000,000 General Aggregate

Employees and Volunteers as Additional Insured
Premises and Operations
Broad form property damage including underground, explosion and collapse hazards (XCU)
Products completed operations (through guaranty period)
Blanket contractual
Subcontractors
Personal Injury with EE exclusion deleted
Employers' liability (Stop gap)

2. Automobile Liability
\$2,000,000 per accident Bodily Injury and Property Liability covering:
Any owned automobile
Hired automobiles and Non-owned automobiles
3. Umbrella Liability
\$2,000,000 per occurrence
\$2,000,000 aggregate

As an alternative to the above indicated Commercial General Liability and Umbrella Liability Insurance policies the CONTRACTOR may provide the CITY with an OWNERS and CONTRACTOR's Protective Policy with a limit of coverage of \$5,000,000.

5.3 INDEMNIFICATION

- A. To the fullest extent permitted by Laws and Regulations, the CONTRACTOR shall, to the extent of the CONTRACTOR'S negligence, indemnify, defend, and hold harmless the CITY, the PROJECT REPRESENTATIVE, their consultants, subconsultants, and the officers, directors, employees, and agents of each and any of them, against and from all claims and liability arising under, by reason of, related, or incidental to the Contract Documents or any performance of the WORK, but not from the sole negligence or willful misconduct of the CITY and/or the PROJECT REPRESENTATIVE. Such indemnification by the CONTRACTOR shall include, but not be limited to, the following:
1. Liability or claims resulting directly or indirectly from the negligence or carelessness of the CONTRACTOR, Subcontractors, Suppliers or any of their employees or agents in the performance of the Work, or in guarding or maintaining the same, or from any improper materials, implements, or appliances used in its construction, or by or on account of any act or omission of the CONTRACTOR, its employees, or agents;
 2. Liability or claims arising directly or indirectly from bodily injury, occupational sickness or disease, or death of the CONTRACTOR's, Subcontractor's, or Supplier's own employees, or agents engaged in the Work resulting in actions brought by or on behalf of such employees against the CITY and/or the PROJECT REPRESENTATIVE;
 3. Liability or claims arising directly or indirectly from or based on the violation of any Laws or Regulations, whether by the CONTRACTOR, Subcontractors, Suppliers or their employees or agents;
 4. Liability or claims arising directly or indirectly from the use or manufacture by the CONTRACTOR, Subcontractors, Suppliers or any of their employees or agents in the performance of the Work of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance, unless otherwise specifically stipulated in this Agreement;

5. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the CITY and/or PROJECT REPRESENTATIVE or any other parties by the CONTRACTOR, Subcontractors, Suppliers or any of their employees or agents;
 6. Liability or claims arising directly or indirectly from the willful misconduct of the CONTRACTOR, Subcontractors, Suppliers or any of their employees or agents;
 7. Liability or claims arising directly or indirectly from any breach of the obligations assumed in the Contract Documents by the CONTRACTOR;
 8. Liability or claims arising directly or indirectly from, relating to, or resulting from a hazardous condition created by the CONTRACTOR, Subcontractors, Suppliers, or any of their employees or agents, and;
 9. Liability or claims arising directly, or indirectly, or consequentially out of any action, legal or equitable, brought against the CITY, the PROJECT REPRESENTATIVE, their consultants, subconsultants, and the officers, directors, employees and agents of each or any of them, to the extent caused by the CONTRACTOR's, Subcontractors', Suppliers' or any of their employees' or agents' use of any premises acquired by permits, rights of way, or easements, the Site, or any land or areas contiguous thereto or its performance of the Work thereon.
- B. The CONTRACTOR shall reimburse the CITY and the PROJECT REPRESENTATIVE for all costs and expenses, (including but not limited to fees and charges of architects, attorneys, and other professionals and court costs including all costs of appeals) incurred by the CITY and/or PROJECT REPRESENTATIVE in enforcing the provisions of this Section.
- C. The indemnification obligation under this Section shall not be limited in any way by any limitation on the amount or type of insurance carried by CONTRACTOR or by the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR or any Subcontractor or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts and CONTRACTOR specifically waives the protection afforded CONTRACTOR under such acts provided, however, that such waiver shall not apply to actions directly against CONTRACTOR by CONTRACTOR's employees. By bidding on this Project, CONTRACTOR agrees that the waiver provided for by this paragraph has been specifically negotiated.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.1 COMMUNICATIONS

- A. Written communications with the CITY shall be only through or as directed by the PROJECT REPRESENTATIVE.

6.2 SUPERVISION AND SUPERINTENDENCE

- A. The CITY shall not supervise, direct or have control or authority over, nor be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. CITY will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.
- B. The CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The CONTRACTOR shall be solely responsible for the means,

methods, techniques, sequences, and procedures of construction and all safety precautions and programs incidental thereto. The CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

- C. The CONTRACTOR shall designate in writing and keep on the Site at all times during the performance of the Work a technically qualified superintendent, who is an employee of the CONTRACTOR and who shall not be replaced without written notice to the PROJECT REPRESENTATIVE. The superintendent will be the CONTRACTOR's representative at the Site and shall have authority to act on behalf of the CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR.

6.3 LABOR, MATERIALS, AND EQUIPMENT

- A. The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The CONTRACTOR shall furnish to the construction site, as well as, erect, maintain, and remove from the Site, all construction materials and equipment and any required temporary facilities. The CONTRACTOR shall at all times maintain good discipline and order at the Site and shall not unreasonably encumber the Site with materials or equipment. Except in connection with the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all work at the Site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime work or the performance of work on Saturday, Sunday, or any federally observed holiday without the PROJECT REPRESENTATIVE's written consent. The CONTRACTOR shall apply for this consent in writing a minimum of 24 hours in advance.
- B. Except as otherwise provided in this Section, the CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of 8 hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the PROJECT REPRESENTATIVE in writing. Additional compensation will be paid to the CONTRACTOR for overtime work only in the event extra work is ordered by the PROJECT REPRESENTATIVE and the Change Order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime work of a similar nature in the same locality.
- C. All increased costs of inspection and testing performed during overtime work by the CONTRACTOR which is allowed solely for the convenience of the CONTRACTOR shall be borne by the CONTRACTOR. The CITY has the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to the CONTRACTOR.
- D. Unless otherwise specified in the Contract Documents, the CONTRACTOR shall furnish and assume full responsibility for the protection and safekeeping of all materials and equipment, and shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, lubricants, power, light, heat, telephone, water, sanitary facilities, and all other facilities, consumables, and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the Work. CONTRACTOR shall move any stored materials or equipment under CONTRACTOR's control which interfere with operations of the CITY.
- E. All materials and equipment incorporated into the Work shall be of specified quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Contract Documents shall expressly run to the benefit of the CITY. If required by the PROJECT REPRESENTATIVE, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in

accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provisions of any such instructions will be effective to assign to the CITY, PROJECT REPRESENTATIVE, or any of their consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the Contract Documents.

- F. All materials and equipment shall be stored in accordance with the manufacturer's or Supplier's instructions with seals and labels intact and legible. Materials and equipment subject to damage by the elements shall be stored in weather-tight enclosures, with temperature and humidity maintained within the ranges required by the manufacturer's or Supplier's instructions. The storage of hazardous materials shall be in compliance with all Laws and Regulations, and in accordance with the requirements of Materials Safety Data Sheets (MSDS's). For exterior storage, fabricated products shall be stored above ground on blocking or skids with care taken to prevent soiling or staining. Materials or products subject to deterioration shall be covered with impervious sheet coverings and with adequate ventilation to avoid condensation. Loose granular materials shall be stored in well-drained areas on solid surfaces and CONTRACTOR shall prevent mixing loose granular materials with foreign matter.
- G. CONTRACTOR shall only salvage materials and equipment that are specifically noted in the Contract Documents.

6.4 PROGRESS SCHEDULE

- A. The CONTRACTOR shall comply with the schedule requirements of the General Requirements.

6.5 CONTINUING THE WORK

- A. The CONTRACTOR shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with the CITY. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the CITY may otherwise agree in writing.

6.6 SUBSTITUTES OR "OR EQUAL" ITEMS

- A. The CONTRACTOR shall submit proposed substitutes or "or equal" items in accordance with the provisions of Section 01630 – Substitutions and Product Options.

6.7 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- A. The CONTRACTOR shall perform not less than 50% percent of the Work with its own forces (i.e. without subcontracting). The 50 % percent requirement shall apply to the Contract Price set forth in the Bid exclusive of Change Orders.
- B. CONTRACTOR shall not employ any Subcontractor, Supplier or other individual or entity, whether initially or as a replacement, against whom the CITY has reasonable objection.
- C. The identity and acceptance of all Subcontractors is required in accordance with the requirements of the Instructions to Bidders.
- D. CONTRACTOR shall be fully responsible to the CITY for all acts and omissions of Subcontractors, Suppliers and other individuals or entities performing or furnishing any part of the Work the same as CONTRACTOR is responsible for CONTRACTOR's own acts or omissions. Nothing contained in the Contract Documents shall create any third-party beneficiary rights in favor of any Subcontractor, Supplier or other individual or entity nor create any contractual relationship between the CITY and such parties.

- E. CONTRACTOR shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers or any other individual or entity performing or furnishing any of the Work.
- F. CONTRACTOR shall require all Subcontractors, Suppliers and such other individuals or entities performing or furnishing any of the Work to communicate with the PROJECT REPRESENTATIVE through CONTRACTOR.
- G. The divisions and sections of the Technical Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the work to be performed by any specific trade.
- H. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate written agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of the CITY.

6.8 EMERGENCIES

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to immediately act to prevent threatened damage, injury, or loss. CONTRACTOR shall give PROJECT REPRESENTATIVE prompt written notice if CONTRACTOR believes that any significant changes in the WORK or variations from the Contract Documents have been caused thereby. If PROJECT REPRESENTATIVE determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Order will be issued to document the consequences of such action.

6.9 SUBMITTALS

- A. After checking and verifying all field measurements and after complying with applicable procedures specified in the Contract Documents, the CONTRACTOR shall submit to the PROJECT REPRESENTATIVE for review all Shop Drawings in accordance with the Contract Documents.
- B. The PROJECT REPRESENTATIVE'S review will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, generally conform to the Contract Documents and with the design concept of the completed Project.
- C. The CONTRACTOR shall also submit to the PROJECT REPRESENTATIVE for review all Samples in accordance with the Contract Documents.
- D. Before submittal of each Shop Drawing or Sample, the CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

6.10 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE

- A. CONTRACTOR warrants and guarantees that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. Abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, or Suppliers, or any other individual or entity for whom CONTRACTOR is responsible;
 2. Normal wear and tear under normal usage.
- B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:
1. Observations by PROJECT REPRESENTATIVE;
 2. Recommendation by PROJECT REPRESENTATIVE or payment by CITY of any progress or final payment;
 3. The issuance of a Certificate of Completion by the CITY;
 4. Use or occupancy of the Work or any part thereof by the CITY;
 5. Any acceptance by CITY or any failure to do so;
 6. Any review and approval of a Shop Drawing or Sample submittal by PROJECT REPRESENTATIVE;
 7. Any inspection, test, or approval by others; or
 8. Any correction of Defective Work by the CITY.

6.11 SAFETY

- A. The CONTRACTOR shall be solely and completely responsible for safety and safety conditions on the job Site, including the safety of all persons and property during performance of the Work. The services of the CITY's or its agents' or consultants' personnel in conducting construction review of the CONTRACTOR's performance is not intended to include review of the adequacy of the CONTRACTOR's work methods, equipment, bracing, scaffolding, or trenching, or safety measures in, on, or near the Site. The CONTRACTOR shall provide safe access for the CITY and its inspectors to adequately inspect quality of Work and the conformance with Contract Documents.
- B. The CONTRACTOR shall provide all barricades, safety guards, temporary fencing, signage and/or other methods to secure trenches, open excavations, and other potentially unsafe conditions resulting from the Work. All roads and areas adjacent to the Site shall be kept clean of dirt and other debris. Pedestrian and vehicular access to and around existing facilities and adjacent sites shall be maintained, and any existing paving damaged by CONTRACTOR's operations shall be restored.

ARTICLE 7 - OTHER WORK

7.1 RELATED WORK AT SITE

- A. The CITY may perform other work related to the Project at the Site by the CITY's own forces, have other work performed by utility owners, or let other direct contracts for such other work. If the fact that such other work is to be performed was not noted in the Contract Documents, notice thereof will be given to the CONTRACTOR prior to starting any such other work.

- B. The CONTRACTOR shall afford each person who is performing the other work (including the CITY's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. The CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or excavate after their work with the written consent of the PROJECT REPRESENTATIVE.
- C. If the proper execution or results of any part of the CONTRACTOR's Work depends upon such other work by another, the CONTRACTOR shall inspect and report to the PROJECT REPRESENTATIVE in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for such proper execution and results. The CONTRACTOR's failure to report such delays, defects, or deficiencies will constitute an acceptance of the other work as fit and proper for integration with the CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in the other work.

7.2 COORDINATION

- A. If the CITY contracts with others for the performance of other work at the Site, CITY will have sole authority and responsibility in respect of such coordination unless otherwise provided in the Contract Documents.

ARTICLE 8 - PROJECT REPRESENTATIVE'S STATUS DURING CONSTRUCTION

8.1 CITY'S REPRESENTATIVE

- A. The PROJECT REPRESENTATIVE will be the CITY's representative during the construction period.

8.2 OBSERVATIONS ON THE SITE

- A. The PROJECT REPRESENTATIVE will make observations on the Site during construction to monitor the progress and quality of the Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. The PROJECT REPRESENTATIVE will not be required to make exhaustive or continuous inspections to check the quality or quantity of the Work.

8.3 CLARIFICATIONS

- A. The PROJECT REPRESENTATIVE will issue with reasonable promptness such written Clarifications of the requirements of the Contract Documents as the PROJECT REPRESENTATIVE may determine necessary.

8.4 AUTHORIZED VARIATIONS IN WORK

- A. The PROJECT REPRESENTATIVE may authorize variations in the Work from the requirements of the Contract Documents. These may be accomplished by a Field Order and will require the CONTRACTOR to perform the Work involved in a manner that minimizes the impact to the Work and the Contract Time. If the CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Times, the CONTRACTOR may make a claim therefore as provided in the Contract Documents.

8.5 REJECTING DEFECTIVE WORK

- A. The PROJECT REPRESENTATIVE will have authority to reject Defective Work and will also have authority to require special inspection or testing of the Work as provided in the Contract Documents.

8.6 DECISIONS ON DISPUTES

- A. The PROJECT REPRESENTATIVE will be the initial interpreter of the requirements of the Contract Documents and of the acceptability of the Work thereunder. Claims, disputes, and other matters relating to the acceptability of the Work and interpretation of the requirements of the Contract Documents pertaining to the performance of the Work shall be determined by the PROJECT REPRESENTATIVE. Any claims in respect to changes in the Contract Price or Contract Time shall be resolved in accordance with the requirements set forth in the Contract Documents.

8.7 LIMITATION ON PROJECT REPRESENTATIVE'S RESPONSIBILITIES

- A. Neither the PROJECT REPRESENTATIVE's authority to act under the Contract Documents nor any decision made by the PROJECT REPRESENTATIVE in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the PROJECT REPRESENTATIVE to the CONTRACTOR, any Subcontractor, any Supplier, any surety for any of them, or any other person or organization performing any of the Work.
- B. The PROJECT REPRESENTATIVE will not supervise, direct, control, or have authority over or be responsible for the CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. The PROJECT REPRESENTATIVE will not be responsible for the CONTRACTOR's failure to perform the Work in accordance with the Contract Documents. The PROJECT REPRESENTATIVE will not be responsible for the acts or omissions of the CONTRACTOR nor of any Subcontractor, Supplier, or any other person or organization performing any of the Work.

ARTICLE 9 - CHANGES IN THE WORK

9.1 GENERAL

- A. Without invalidating the Agreement and without notice to any surety, the CITY may at any time or from time to time, order additions, deletions, or revisions in the Work. Such additions, deletions or revisions will be authorized by a Change Order or A Field Order/Field Directive. Upon receipt of any such Change Order or Field Order/Field Directive, CONTRACTOR shall promptly proceed to implement the additions, deletions, or revisions in the Work in accordance with the applicable conditions of the Contract Documents.
- B. In the event of an emergency requiring prompt action or a minor change in the Work, the PROJECT REPRESENTATIVE or the CITY, through the City Engineer, may issue a Field Order/Field Directive. CONTRACTOR shall promptly perform all work required by the Field Order/Field Directive and, if CONTRACTOR believes such work will result in an increase in the cost of the Work, CONTRACTOR shall notify the PROJECT REPRESENTATIVE promptly upon receipt of the Field Order/Field Directive, whether received orally or in writing. CONTRACTOR shall then submit a Change Proposal to the PROJECT REPRESENTATIVE within seven (7) calendar days of receipt of the Field Order/Field Directive for the change in the cost of the Work or increase in the Contract Time. Failure to follow the requirements of this paragraph shall be deemed a waiver by CONTRACTOR of any increase in the Contract Price or Contract Time as a result of the Field Order/Field Directive.
- C. Whether or not the CITY and CONTRACTOR agree as to the extent, if any, of an increase in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Field Order/Field Directive, the CONTRACTOR shall proceed so as to minimize the impact on and delays to the Work.

- D. A Change Order is initiated by a Change Proposal, whether submitted by the PROJECT REPRESENTATIVE or CONTRACTOR (See Division 1 – Section 01035).
- E. If the CITY and the CONTRACTOR are unable to agree as to the extent, if any, of an increase in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Field Order/Field Directive or a Change Proposal, the PROJECT REPRESENTATIVE can direct the CONTRACTOR to proceed on the basis of time and materials so as to minimize the impact on and delays to the Work, and the CONTRACTOR may make a claim as provided in the Contract Documents.

ARTICLE 10 - CHANGE OF CONTRACT PRICE

10.1 GENERAL

- A. The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the Work.
- B. The Contract Price may only be changed by a Change Order. The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
 - 1. Where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved;
 - 2. By mutual acceptance of a lump sum, which may include an allowance for overhead and profit (not necessarily in accordance with Section 10.4); or
 - 3. On the basis of the cost of work (determined as provided in Section 10.3) plus the CONTRACTOR's overhead and profit (determined as provided in Section 10.4).
- C. Any claim for an increase in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the PROJECT REPRESENTATIVE promptly (but in no event later than 7 calendar days) after the start of the event giving rise to the claim and shall state the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 14 calendar days after the start of such event (unless the PROJECT REPRESENTATIVE allows, in writing, an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of such event. All claims for adjustment in the Contract Price will be determined by the PROJECT REPRESENTATIVE. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 10.1 C.

10.2 COSTS RELATING TO WEATHER

- A. The CONTRACTOR shall have no claims against the CITY for damages for any injury to the Work, materials, or equipment, resulting from the action of the elements. If, however, in the opinion of the PROJECT REPRESENTATIVE the CONTRACTOR has made all reasonable efforts to protect the materials, equipment, and Work, the CONTRACTOR may be granted a reasonable extension of the Contract Time to make proper repairs, renewals, and replacements of the Work, materials, or equipment.

10.3 COST OF WORK (BASED ON TIME AND MATERIALS)

- A. **General:** The term “cost of work” means the sum of all costs necessarily incurred and paid by the CONTRACTOR for labor, materials, and equipment in the proper performance of extra work. Except as

otherwise may be agreed to in writing by the CITY, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in Section 10.5.

- B. **Labor:** The costs of labor will be the actual cost for wages prevailing for each craft or type of workers performing the extra work at the time the extra work is done, plus employer payments of payroll taxes, workers compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from federal, state or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. Labor costs for equipment operators and helpers will be paid only when such costs are not included in the invoice for equipment rental. The labor costs for foremen shall be proportioned to all of their assigned work and only that applicable to extra work shall be paid. Nondirect labor costs including superintendence shall be considered part of the markup set out in Section 10.4.
- C. **Materials:** The cost of materials reported shall be at invoice or lowest current price at which materials are locally available and delivered to the Site in the quantities involved, plus the cost of freight, delivery and storage, subject to the following:
1. All trade discounts and rebates shall accrue to the CITY, and the CONTRACTOR shall make provisions so that they may be obtained;
 2. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the PROJECT REPRESENTATIVE. Except for actual costs incurred in the handling of such materials, markup will not be allowed;
 3. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources on non-extra work items or the current wholesale price for such materials delivered to the Site, whichever price is lower; and
 4. If in the opinion of the PROJECT REPRESENTATIVE the cost of material is excessive, or the CONTRACTOR does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the Site less trade discount. The CITY reserves the right to furnish materials for the extra work and no claim will be allowed by the CONTRACTOR for costs, overhead and profit on such materials.
- D. **Equipment:** The CONTRACTOR will be paid for the use of equipment at the rental rate prevailing in the locality of the Project Site unless otherwise specified in the Supplementary General Conditions. Such rental rate will be used to compute payments for equipment whether the equipment is under the CONTRACTOR's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment will be the rate resulting in the least total cost to the CITY for the total period of use. The CONTRACTOR may furnish cost data which might assist the PROJECT REPRESENTATIVE in the establishment of the rental rate. Payment for equipment shall be subject to the following:
1. All equipment shall, in the opinion of the PROJECT REPRESENTATIVE, be in good working condition and suitable for the purpose for which the equipment is to be used;
 2. Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates; and

3. Individual pieces of equipment or tools having a replacement value of \$500 or less, whether or not consumed by use, will be considered to be small tools and no payment will be made therefore.

E. **Equipment Rental Time:** The rental time to be paid for equipment on the Site will be the time the equipment is in productive operation on the extra work being performed and, in addition, will include the time required to move the equipment to the location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location. However, moving time will not be paid if the equipment is used on other than the extra work, even though located at the Site of the extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the Site of the extra work on other than the extra work. Rental time will not be allowed while equipment is inoperative due to breakdowns. The rental time of equipment on the work Site will be computed subject to the following:

1. When hourly rates are listed, any part of an hour less than 30 minutes of operation will be considered to be half-hour of operation, and any part of an hour in excess of 30 minutes will be considered one hour of operation;
2. When daily rates are listed, any part of a day less than 4 hours operation will be considered to be half-day of operation. When owner-operated equipment is used to perform extra work to be paid for on a time and materials basis, the CONTRACTOR will be paid for the equipment and operator, as set forth in Paragraphs 3,4, and 5, following;
3. Payment for the equipment will be made in accordance with the provisions in Paragraph 10.3 D., herein;
4. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the CONTRACTOR to other workers operating similar equipment already on the Site, or in the absence of such labor, established by collective bargaining agreements for the type of workmen and location of the extra work, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Paragraph 10.3 B., herein, which surcharge shall constitute full compensation for payments imposed by state and federal laws and all other payments made to or on behalf of workers other than actual wages; and
5. To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Section 10.4, herein.

F. **Special Services:** Special work or services are defined as that work characterized by extraordinary complexity, sophistication, innovation, or a combination of the foregoing attributes which are unique to the construction industry. The PROJECT REPRESENTATIVE will make estimates for payment for special services and may consider the following:

1. When the PROJECT REPRESENTATIVE and the CONTRACTOR determine that a special service or work is required which cannot be performed by the forces of the CONTRACTOR or those of any of its Subcontractors, the special service or work may be performed by an entity especially skilled in the work to be performed. After validation of invoices and determination of market values by the PROJECT REPRESENTATIVE, invoices for special services or work based upon the current fair market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs;

2. When the CONTRACTOR is required to perform extra work necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the Site, the charges for that portion of the work performed at the off-site facility may, by agreement, be accepted as a special service and accordingly, the invoices for the work may be accepted without detailed itemization; and
3. All invoices for special services will be adjusted by deducting all trade discounts. In lieu of the allowances for overhead and profit specified in Section 10.4, herein, an allowance of 15 percent will be added to invoices for special services.

G. **Sureties:** All Work performed hereunder shall be subject to all of the provisions of the Contract Documents and the CONTRACTOR's sureties shall be bound with reference thereto as under the original Agreement.

10.4 CONTRACTOR'S OVERHEAD AND PROFIT

A. Extra work ordered on the basis of time and materials will be paid for at the actual necessary cost as determined by the PROJECT REPRESENTATIVE, plus allowances for overhead and profit. The allowance for overhead and profit will include full compensation for superintendence, taxes, field office expense, extended overhead, home office overhead, and all other items of expense or cost not included in the cost of labor, materials, or equipment provided for under Section 10.3. The allowance for overhead and profit will be made in accordance with the following schedule:

Labor	20 percent
Materials	15 percent
Equipment	15 percent

To the sum of the costs and markups provided for in this Article, an additional 2 percent of the sum will be added as compensation for Bonds, insurance and business & occupation taxes.

B. It is understood that labor, materials, and equipment for extra work may be furnished by the CONTRACTOR or by the Subcontractor on behalf of the CONTRACTOR. When all or any part of the extra work is performed by a Subcontractor, the allowance specified herein will be applied to the labor, materials, and equipment costs of the Subcontractor, to which total the CONTRACTOR may then add 5 percent of the Subcontractor's total cost for the extra work, which amount includes all costs for Bonds, insurance and business & occupation taxes. Regardless of the number of hierarchical tiers of Subcontractors, the 5 percent increase above the Subcontractor's total cost which includes the allowances for overhead and profit specified herein may be applied one time only.

10.5 EXCLUDED COSTS

A. The term "cost of work" shall not include, and the CONTRACTOR shall not be entitled to payment of, any of the following:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, proprietors, partners, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR whether at the Site or in CONTRACTOR's principal office or a branch office for general administration of the Work all of which are to be considered administrative costs covered by the CONTRACTOR's allowance for overhead and profit;

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site;
3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments;
4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except as provided by Section 10.4 above);
5. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of Defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property; and
6. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in Section 10.4.

10.6 CONTRACTOR'S EXTRA WORK REPORT

- A. In order to be paid for extra work, the CONTRACTOR must submit a daily "extra work report" on a form approved by the PROJECT REPRESENTATIVE. The form must be completely filled out based on the provisions of Sections 10.3 through 10.5 and signed by the CONTRACTOR and PROJECT REPRESENTATIVE at the end of each work day. Failure to complete the form and obtain appropriate signatures by the next working day after the extra work of the previous day was completed will result in CONTRACTOR's costs for extra work being disallowed unless such failure is due to the unavailability of the PROJECT REPRESENTATIVE.

ARTICLE 11 - CHANGE OF CONTRACT TIME

11.1 GENERAL

- A. The Contract Time may only be changed by a Change Order. Any claim for an extension of the Contract Time shall be based on written notice delivered by the CONTRACTOR to the PROJECT REPRESENTATIVE promptly (but in no event later than 7 calendar days) after the start of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 14 calendar days after the start of such event (unless the PROJECT REPRESENTATIVE allows, in writing, an additional period of time for the submission of additional or more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR is entitled as a result of said event. All claims for adjustment in the Contract Time will be determined by the PROJECT REPRESENTATIVE. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this Paragraph 11.1 A. An increase in Contract Time does not mean that the CONTRACTOR is due an increase in Contract Price. Only compensable time extensions will result in an increase in Contract Price.
- B. All time limits stated in the Contract Documents are of the essence of the Agreement.
- C. When CONTRACTOR is prevented from completing any part of the Work within the Contract Time due to delay beyond the control of CONTRACTOR, the Contract Time will be extended in an amount equal to the time lost on the critical path of the Work due to such delay if a claim is made therefore as provided in Paragraph 11.1.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by the CITY; acts or neglect of those performing other work as contemplated by the Contract

Documents; and fires, floods, epidemics, abnormal weather conditions, or acts of God. Delays attributable to and within the control of any Subcontractor or Supplier shall be deemed to be delays within the control of the CONTRACTOR.

- D. In no event will the CITY be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for, or employee or agent of any of them, for any increase in the Contract Price or other damages arising out or resulting from the following:
1. Delays caused by or within the control of CONTRACTOR; or
 2. Delays beyond the control of both CITY and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by those performing other Work as contemplated by the Contract Documents.

11.2 EXTENSIONS OF CONTRACT TIMES FOR DELAY DUE TO WEATHER

- A. The Contract Time may be extended by the PROJECT REPRESENTATIVE because of delays attributable to abnormal weather conditions. Weather conditions which may be reasonably anticipated to occur given the time of year and locality of the Work will not be deemed to be abnormal weather conditions. The CONTRACTOR shall, within 7 calendar days of the beginning of any such delay, notify the PROJECT REPRESENTATIVE in writing and request an extension of Contract Time. The PROJECT REPRESENTATIVE will ascertain the facts and the extent of the delay and extend the Contract Time when, in its judgment, the findings of the fact justify such an extension.

ARTICLE 12 - INSPECTIONS AND TESTS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

12.1 NOTICE OF DEFECTIVE WORK

- A. Prompt notice of Defective Work known to the CITY or PROJECT REPRESENTATIVE will be given to the CONTRACTOR. All Defective Work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 12. Defective Work may be rejected even if approved by prior inspection.

12.2 ACCESS TO WORK

- A. The CITY, PROJECT REPRESENTATIVE, their consultants, independent testing laboratories, and governmental agencies with jurisdictional interests shall have access to the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access.

12.3 PERMITS, INSPECTIONS AND TESTS

- A. Except as otherwise provided for in the Contract Documents, the CONTRACTOR shall be responsible for obtaining and paying the cost of any permits necessary for the Work.
- B. The CONTRACTOR shall give the PROJECT REPRESENTATIVE not less than 24 hours notice of readiness of the Work for all required inspections, tests, or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- C. The CITY shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except as otherwise specifically provided for by the Contract Documents.

- D. If Laws and Regulations of any public body having jurisdiction require any Work (or any part thereof) to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals; pay all costs in connection therewith; and furnish the PROJECT REPRESENTATIVE the required certificates of inspection or approval.
- E. The CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required by the Contract Documents for the PROJECT REPRESENTATIVE's acceptance of materials or equipment to be incorporated in the Work.
- F. The PROJECT REPRESENTATIVE will make, or have made, such inspections and tests as the PROJECT REPRESENTATIVE deems necessary to see that the Work is being accomplished in accordance with the requirements of the Contract Documents. In the event such inspections or tests reveal non-compliance with the requirements of the Contract Documents, the CONTRACTOR shall bear the cost of corrective measures deemed necessary by the PROJECT REPRESENTATIVE, as well as the cost of subsequent re-inspection and retesting. Neither observations by the PROJECT REPRESENTATIVE nor inspections, tests, or approvals by others shall relieve the CONTRACTOR from the CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.
- G. If any Work (including the work of others) that is to be inspected, tested, or approved is covered without written approval of the PROJECT REPRESENTATIVE, it must, if requested by the PROJECT REPRESENTATIVE, be uncovered for observation. Such uncovering shall be at the CONTRACTOR's expense unless the CONTRACTOR has given the PROJECT REPRESENTATIVE not less than 24 hours notice of the CONTRACTOR's intention to perform such test or to cover the same and the PROJECT REPRESENTATIVE has not acted with reasonable promptness in response to such notice.
- H. If any Work is covered contrary to the written request of the PROJECT REPRESENTATIVE, it must, if requested by the PROJECT REPRESENTATIVE, be uncovered for the PROJECT REPRESENTATIVE's observation and recovered at the CONTRACTOR's expense.
- I. If the PROJECT REPRESENTATIVE considers it necessary or advisable that covered Work be observed by the PROJECT REPRESENTATIVE or inspected or tested by others, the CONTRACTOR, at the PROJECT REPRESENTATIVE's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as the PROJECT REPRESENTATIVE may require, that portion of the Work in question. If it is found that such Work is Defective Work, the CONTRACTOR shall bear all costs of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction. However, if such Work is not found to be Defective Work, the CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, the CONTRACTOR may make a claim therefore as provided in the Contract Documents.

12.4 CITY MAY STOP THE WORK

- A. If Defective Work is identified, the CITY may order the CONTRACTOR to stop performance of the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the CITY to stop the Work shall not give rise to any duty on the part of the CITY to exercise this right for the benefit of the CONTRACTOR or any other party.

12.5 CORRECTION OR REMOVAL OF DEFECTIVE WORK

- A. If required by the PROJECT REPRESENTATIVE, the CONTRACTOR shall promptly either correct all Defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by

the PROJECT REPRESENTATIVE, remove it from the Site and replace it with non-defective Work. The CONTRACTOR shall bear all costs of such correction or removal.

12.6 ACCEPTANCE OF DEFECTIVE WORK

- A. If, instead of requiring correction or removal and replacement of Defective Work, the CITY prefers to accept the Defective Work, the CITY may do so. The CONTRACTOR shall bear all costs attributable to the CITY's evaluation of and determination to accept such Defective Work. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the CITY shall be entitled to an appropriate decrease in the Contract Price.

12.7 CITY MAY CORRECT DEFECTIVE WORK

- A. If the CONTRACTOR fails within a reasonable time after written notice from the PROJECT REPRESENTATIVE to correct Defective Work, or to remove and replace Defective Work as required by the PROJECT REPRESENTATIVE, or if the CONTRACTOR fails to perform the Work in accordance with the Contract Documents, the CITY may, after 7 calendar days written notice to the CONTRACTOR, correct and remedy any such deficiency.
- B. In exercising the rights and remedies under this Section, the CITY may exclude the CONTRACTOR from all or part of the Site, take possession of all or part of the Work, and suspend the CONTRACTOR's services related thereto and incorporate in the Work all materials and equipment for which the CITY has paid the CONTRACTOR whether stored at the Site or elsewhere. The CONTRACTOR shall provide the CITY, PROJECT REPRESENTATIVE, and their consultants access to the Site to enable the CITY to exercise the rights and remedies under this Section.
- C. All costs incurred by the CITY in exercising the rights and remedies under this Section will be charged against the CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work. The CITY shall be entitled to an appropriate decrease in the Contract Price.
- D. The CONTRACTOR shall not be allowed an extension of Contract Time because of any delay in the performance of the Work attributable to the exercise by the CITY of the CITY's rights and remedies under this Section.

ARTICLE 13- PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 SCHEDULE OF VALUES (LUMP SUM PRICE BREAKDOWN)

- A. The Schedule of Values or lump sum price breakdown established as provided in the General Requirements shall serve as the basis for progress payments and shall be incorporated into a form of Application for Payment acceptable to the PROJECT REPRESENTATIVE.

13.2 UNIT PRICE BID SCHEDULE

- A. Progress payments on account of unit price Work will be based on the number of units completed.

13.3 APPLICATION FOR PROGRESS PAYMENT

- A. Unless otherwise prescribed by law, on the 25th of each month the CONTRACTOR shall submit to the PROJECT REPRESENTATIVE for review, the Application for Payment filled out and signed by the

CONTRACTOR covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents.

- B. The Application for Payment shall identify, as a subtotal, the amount of the CONTRACTOR's total earnings to date; plus the value of materials stored at the Site which have not yet been incorporated in the Work; and less a deductive adjustment for materials installed which were not previously incorporated in the Work, but for which payment was allowed under the provisions for payment for materials stored at the Site, but not yet incorporated in the Work.
- C. The net payment due the CONTRACTOR shall be the above-mentioned subtotal from which shall be deducted the amount of retainage required by Chapter 60.28 RCW and the total amount of all previous payments made to the CONTRACTOR.
 - 1. Pursuant to RCW 60.28.011, the CITY will retain 5% of all progress payments. In the event that during the performance of the Contract and prior to the expiration of the claim period as provided in Chapter 60.28 RCW, the amount retained is reduced to any amount below 5%, then the CITY may retain additional sums from monies earned by the CONTRACTOR so as to maintain at all times a 5% retainage fund.
 - 2. Monies reserved under provisions of Chapter 60.28 RCW shall, at the option of the CONTRACTOR, be:
 - a. Retained in a fund by the CITY with no interest paid thereon to the CONTRACTOR and not subject to withdrawal until after completion of all Work and the expiration of the claim period provided for by Chapter 60.28 RCW; or
 - b. Deposited by the CITY in an interest-bearing account in a bank, mutual savings bank, or savings and loan associations, not subject to withdrawal until after completion of all Work and expiration of the claim period provided for by Chapter 60.28 RCW; or
 - c. Placed in escrow in a bank or trust company by the CITY until after completion of all Work and the expiration of the claim period provided for by Chapter 60.28 RCW. When the monies reserved are to be placed in escrow, the CITY will issue a check representing the sum of the monies reserved payable to the bank or trust company and the CONTRACTOR jointly. Such check shall be converted into bonds and securities chosen by the CONTRACTOR and approved by the CITY, and the bonds and securities held in escrow.
 - d. The CONTRACTOR shall designate the option desired on a form as may be provided by the CITY, examples of which are contained in the Contract Documents. The form should be submitted with the Agreement, but no later than with the CONTRACTOR's first partial payment request. The CONTRACTOR in choosing option b or c, agrees to assume full responsibility to pay all costs which may accrue from escrow services, brokerage charges, or both, and further agrees to assume all risks in connection with the investment of the retained monies.

13.4 CONTRACTOR'S WARRANTY OF TITLE

- A. The CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by an Application for Payment, whether incorporated in the Work or not, will pass to the CITY no later than the time of payment, free and clear of all claims.

13.5 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT

- A. The PROJECT REPRESENTATIVE will, within 7 calendar days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the application to the CITY, or return the application to the CONTRACTOR indicating in writing the PROJECT REPRESENTATIVE's reasons for refusing to recommend payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the application. If the PROJECT REPRESENTATIVE still disagrees with a portion of the application, it will submit the application recommending the undisputed portion of the application to the CITY for payment and provide reasons for recommending non-payment of the disputed amount. Thirty days after presentation of the Application for Payment with the PROJECT REPRESENTATIVE's recommendation, the amount recommended will be paid by the CITY to the CONTRACTOR.
- B. The PROJECT REPRESENTATIVE, in its discretion, may refuse to recommend the whole or any part of any payment to protect CITY from loss because:
1. The Work is Defective Work or the completed Work has been damaged requiring correction or replacement;
 2. The Contract Price has been reduced by written amendment or Change Order;
 3. The CITY has been required to correct Defective Work or complete Work in accordance with the Contract Documents; or
 4. The PROJECT REPRESENTATIVE has actual knowledge of the occurrence of any of the events of default enumerated in Article 14.

The PROJECT REPRESENTATIVE will give the CONTRACTOR prompt written notice stating the reasons for such action. The CITY will pay the CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by the PROJECT REPRESENTATIVE and CONTRACTOR, when CONTRACTOR corrects to the PROJECT REPRESENTATIVE's satisfaction the reasons for such action.

13.6 SUBSTANTIAL COMPLETION

- A. When the CONTRACTOR considers the Work ready for its intended use, the CONTRACTOR shall notify the PROJECT REPRESENTATIVE in writing that the Work is substantially complete. The CONTRACTOR shall attach to this request a list of all Work items that remain to be completed and a request that the PROJECT REPRESENTATIVE prepare a Notice of Completion. Within a reasonable time thereafter, the CONTRACTOR and the PROJECT REPRESENTATIVE shall make an inspection of the Work to determine the status of completion. If the PROJECT REPRESENTATIVE does not consider the Work substantially complete, or the list of remaining Work items to be comprehensive, the PROJECT REPRESENTATIVE will notify the CONTRACTOR in writing giving the reasons therefore. If the PROJECT REPRESENTATIVE considers the Work substantially complete, the PROJECT REPRESENTATIVE will prepare and deliver to the CITY for its execution the Notice of Completion signed by the PROJECT REPRESENTATIVE and CONTRACTOR, which shall fix the date of Substantial Completion.

13.7 PARTIAL UTILIZATION

- A. The CITY shall have the right to utilize or place into service any item of equipment or other usable portion of the Work prior to completion of the Work. Whenever the CITY plans to exercise said right, the CONTRACTOR will be notified in writing by the CITY, identifying the specific portion or portions of the Work to be so utilized or otherwise placed into service.

- B. It shall be understood by the CONTRACTOR that until such written notification is issued, all responsibility for care and maintenance of all of the Work shall be borne by the CONTRACTOR. Upon issuance of said written notice of Partial Utilization, the CITY will accept responsibility for the protection and maintenance of all such items or portions of the Work described in the written notice.
- C. The CONTRACTOR shall retain full responsibility for satisfactory completion of the Work, regardless of whether a portion thereof has been partially utilized by the CITY, and the CONTRACTOR's one year maintenance and/or guarantee period shall commence only after the date of full and final completion of all Work required by the Contract Documents, as established by the date of PROJECT REPRESENTATIVE's written notice to the CITY as set forth in Section 13.9 below.

13.8 APPLICATION FOR FINAL PAYMENT

- A. After the CONTRACTOR has completed all of the remaining Work items referred to in Section 13.6 and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in the General Requirements), and other documents, all as required by the Contract Documents, and after the PROJECT REPRESENTATIVE has indicated that the Work is acceptable, the CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, including the Maintenance Bond if one is required by the contract documents.

13.9 FINAL PAYMENT AND ACCEPTANCE

- A. If, on the basis of the PROJECT REPRESENTATIVE's observation of the Work during construction and final inspection, and the PROJECT REPRESENTATIVE's review of the final Application for Payment and accompanying documentation, all as required by the Contract Documents, the PROJECT REPRESENTATIVE is satisfied that the Work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the PROJECT REPRESENTATIVE will, within 14 days after receipt of the final Application for Payment, indicate in writing the PROJECT REPRESENTATIVE's recommendation of payment and present the application to the CITY for payment. The date of PROJECT REPRESENTATIVE's notice to the CITY in writing shall be the date for commencement of CONTRACTOR's one (1) year maintenance and/or guarantee period
- B. After acceptance of the Work by the CITY's governing body, the CITY will make final payment to the CONTRACTOR of the amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the Contract Documents, including the following items:
 - 1. Liquidated damages, as applicable;
 - 2. Amounts withheld by CITY under Paragraph 13.5.B which have not been released; and
 - 3. Two times the value of outstanding items of correction Work or punch list items yet uncompleted or uncorrected, as applicable. All such Work shall be completed or corrected to the satisfaction of the CITY within the time stated on the Notice of Completion, otherwise the CONTRACTOR does hereby waive any and all claims to all monies withheld by the CITY to cover the value of all such uncompleted or uncorrected items.
- C. As a condition of final payment, the CONTRACTOR shall be required to execute a release on the form provided by the CITY, releasing the CITY from any and all claims of liability for payment on the Project except for such amounts as may be specifically described and excluded from the release.

13.10 RELEASE OF RETAINAGE AND OTHER DEDUCTIONS

- A. After completion of all the Work, and not more than 60 days thereafter (based on a 45-day claims period and 15-day processing time), the CITY will release to the CONTRACTOR the retained funds withheld pursuant to the Agreement, provided the following conditions are met:
1. Certificates approved by the Washington State Department of Labor and Industries, Washington State Employment Security Department, and all other departments and agencies having jurisdiction over the activities of the CONTRACTOR have been provided to the CITY;
 2. A release obtained from the Washington State Department of Revenue has been provided to the CITY;
 3. Affidavits of Wages Paid for the CONTRACTOR and each subcontractor, approved by Washington State Department of Labor and Industries, have been provided to the CITY;
 4. No claims, as provided by law, have been filed against the retainage; and
 5. The CITY has no claims under the Contract Documents.
- B. In the event claims are filed and not resolved at the end of the 60 day period, the CONTRACTOR shall be paid such retainage less an amount sufficient to pay any such claims or notices together with a sum determined by the CITY sufficient to pay the costs of such action and to cover attorney's fees, together with any sums determined by the CITY sufficient to pay any of its claims against the CONTRACTOR.
- C. After executing the Notice of Completion, the CONTRACTOR shall have 30 days to complete any outstanding items of Work remaining to be completed or corrected as stated on the final punch list made a part of Notice of Completion. Upon expiration of the 60 day period, referred to in Paragraph 13.10.A, the amounts withheld pursuant to the provisions of Paragraph 13.9.B for all remaining Work items will be paid to the CONTRACTOR provided that said Work has been completed or corrected to the satisfaction of the CITY within the 30 day period. Otherwise, the CONTRACTOR does hereby waive any and all claims for all monies withheld by the CITY under this Agreement in an amount two times the value of such remaining uncompleted or uncorrected items.

ARTICLE 14- SUSPENSION OF WORK AND TERMINATION

14.1 SUSPENSION OF WORK BY CITY

- A. The CITY may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than 90 days by notice in writing to the CONTRACTOR. The CONTRACTOR shall resume the Work on receipt of a notice of resumption of Work. The CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the CONTRACTOR makes an approved claim therefore as provided in the Contract Documents.

14.2 TERMINATION OF AGREEMENT BY CITY FOR DEFAULT

- A. In the event of default by the CONTRACTOR, the CITY may give 7 calendar days written notice to the CONTRACTOR of CITY's intent to terminate the Agreement and provide the CONTRACTOR an opportunity to remedy the conditions constituting the default within a specified period of time. It will be considered a default by the CONTRACTOR whenever CONTRACTOR shall:
1. Declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors;

2. Disregard or violate the Laws or Regulations of any public body having jurisdiction;
 3. Fail to provide materials or workmanship meeting the requirements of the Contract Documents;
 4. Disregard or violate provisions of the Contract Documents or PROJECT REPRESENTATIVE's instructions;
 5. Fail to prosecute the Work according to the approved Progress Schedule;
 6. Fail to provide a qualified superintendent, competent workmen, or materials or equipment meeting the requirements of the Contract Documents; or
 7. Disregard the authority of the PROJECT REPRESENTATIVE.
- B. If the CONTRACTOR fails to remedy the conditions constituting default within the time allowed, the CITY may then issue the notice of termination.
- C. In the event the Agreement is terminated in accordance with this Section, the CITY may take possession of the Work and may complete the Work by whatever method or means the CITY may select. The cost of completing the Work will be deducted from the balance which would have been due the CONTRACTOR had the Agreement not been terminated and the Work completed in accordance with the Contract Documents. If such cost exceeds the balance which would have been due, the CONTRACTOR shall pay the excess amount to the CITY. If such cost is less than the balance which would have been due, the CONTRACTOR shall not have claim to the difference.

14.3 TERMINATION OF AGREEMENT BY CITY FOR CONVENIENCE

- A. Upon 7 calendar days written notice to the CONTRACTOR, the CITY may, without cause and without prejudice to any other right or remedy of the CITY, elect to terminate the Agreement. In such case, the CONTRACTOR shall be paid (without duplication of any items):
1. For completed and acceptable Work executed in accordance with the Contract Documents, prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. For expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. For all reasonable claims, costs, losses, and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 4. For reasonable expenses directly attributable to termination. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

14.4 TERMINATION OF AGREEMENT BY CONTRACTOR

- A. The CONTRACTOR may terminate the Agreement upon 14 calendar days written notice to the CITY, whenever the Work has been suspended under the provisions of Section 14.1 herein, for more than 90 consecutive days through no fault or negligence of the CONTRACTOR, and notice to resume Work or to terminate the Agreement has not been received from the CITY within this time period. In the event of such termination, the CONTRACTOR shall have no claims against the CITY except for those claims

specifically enumerated in Section 14.3 herein, and as determined in accordance with the requirements of said Section.

ARTICLE 15 - WASHINGTON STATE REQUIREMENTS

15.1 TRENCH EXCAVATION SAFETY SYSTEMS

- A. As required by RCW 39.04.180, on public works projects in which trench excavation will exceed a depth of four feet, any contract therefore shall require adequate safety systems for the trench excavation that meet the requirements of the Washington Division of Industrial Safety and Health Act, Chapter 49.17 RCW. This requirement shall be included in the cost estimates and bidding forms as a separate item. The costs of trench safety systems shall not be considered as incidental to any other contract item and any attempt to include the trench safety systems as an incidental cost is prohibited.

15.2 PAYMENT OF PREVAILING WAGES

- A. In accordance with Revised Code of Washington Chapters 39.12 and 49.28 as amended or supplemented, and any regulations adopted pursuant to these statutes, there shall be paid to all laborers, workmen or mechanics employed on this contract, at least the prevailing rate of wage for an hour's work in the same trade or occupation in the area of the Work regardless of any contractual relationship which may exist, or be alleged to exist, between the CONTRACTOR and any laborers, workmen, mechanics or subcontractors.
- B. The prevailing wage rates to be in force during the duration of this contract are included in Section 00810 – Prevailing Wage Classifications/Rates. However, the CONTRACTOR shall be obligated to confirm that the rates are current and conform to the controlling statutes and regulations. Any wage deficiencies shall be at the CONTRACTOR'S sole risk and expense. The wage rates shall be included as part of any subcontracts the CONTRACTOR may enter into for Work on this Project.
- C. The "prevailing rate of wage" shall be the rate of hourly wage, usual benefits, and overtime paid in the locality to the majority of workmen, laborers, or mechanics in the same trade or occupation, all in accordance with, and as defined by, Washington law.
- D. The CONTRACTOR and each Subcontractor, on or before the date of commencement of Work, shall file a statement under intent, under oath, with the CITY and approved by the Director of Labor and Industries certifying the rate of hourly wage paid and to be paid each classification of laborers, workmen, or mechanics employed upon the Work by the CONTRACTOR or Subcontractor which shall be not less than the prevailing rate of wage. Such statement and any supplemental statements which may be necessary shall be filed in accordance with the practices and procedures required by the Department of Labor and Industries.
- E. Each application for payment submitted by CONTRACTOR for payment shall contain, or have attached to it, a statement that prevailing wages have been paid in accordance with the pre-filed statement or statements of intent on file with the Department of Labor and Industries as approved by the Industrial Statistician.
- F. At the conclusion of the Project, the CONTRACTOR and its subcontractors shall submit affidavits of wages paid to the Department of Labor and Industries for certification by the Director. Final payment on the contract shall be withheld until certification by the director has been received by the CITY that the prevailing wage requirements of the law have been satisfied.

ARTICLE 16 - MISCELLANEOUS

16.1 RIGHT TO AUDIT

- A. If the CONTRACTOR submits a claim to the CITY for additional compensation, the CITY shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the CONTRACTOR's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted. The right to audit shall include the right to inspect the CONTRACTOR's plant, or such parts thereof, as may be or have been engaged in the performance of the Work. The CONTRACTOR further agrees that the right to audit encompasses all subcontracts and is binding upon Subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the CITY deems desirable during the CONTRACTOR's normal business hours at the office of the CONTRACTOR. The CONTRACTOR shall make available to the CITY for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the CITY.

16.2 SURVIVAL OF OBLIGATIONS

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

16.3 CONTROLLING LAW

- A. This Agreement is to be governed by the laws of the State of Washington.

16.4 SEVERABILITY

- A. If any term or provision of the Contract Documents is declared invalid or unenforceable by any court of lawful jurisdiction, the remaining terms and provisions of the Contract Documents shall not be affected thereby and shall remain in full force and effect.

16.5 WAIVER

- A. The waiver by the CITY of any breach or violation of any term, covenant or condition of the Contract Documents or of any provision, ordinance, or law shall not be deemed to be a waiver of any other term, covenant, condition, ordinance, or law or of any subsequent breach or violation of the same or of any other term, covenant, condition, ordinance, or law. The subsequent payment of any monies or fee by the CITY which may become due hereunder shall not be deemed to be a waiver of any preceding breach or violation by CONTRACTOR or any term, covenant, condition of the Contract Documents or of any applicable law or ordinance.

- END OF GENERAL CONDITIONS -

SECTION 00810 – PREVAILING WAGE CLASSIFICATIONS/RATES

PREVAILING WAGE RATES/CLASSIFICATIONS FOLLOWS
CERTIFICATE OF COMPLIANCE WITH WAGE PAYMENT STATUTES FOLLOWS

PREVAILING WAGE CLASSIFICATIONS/RATES
00810-1

Washington State L&I Prevailing Wage Rates, Printed April 8, 2020

County	Trade	Job Classification	Wage	Holiday	Overtime	Notes
King	Asbestos Abatement Workers	Journey Level	\$50.86	5D	1H	
King	Boilermakers	Journey Level	\$69.29	5N	1C	
King	Brick Mason	Journey Level	\$58.82	5A	1M	
King	Brick Mason	Pointer-Caulker-Cleaner	\$58.82	5A	1M	
King	Building Service Employees	Janitor	\$25.58	5S	2F	
King	Building Service Employees	Traveling Waxer/Shampooer	\$26.03	5S	2F	
King	Building Service Employees	Window Cleaner (Non-Scaffold)	\$29.33	5S	2F	
King	Building Service Employees	Window Cleaner (Scaffold)	\$30.33	5S	2F	
King	Cabinet Makers (In Shop)	Journey Level	\$22.74			1
King	Carpenters	Acoustical Worker	\$62.44	7A	4C	
King	Carpenters	Carpenter	\$62.44	7A	4C	
King	Carpenters	Carpenters on Stationary Tools	\$62.57	7A	4C	
King	Carpenters	Creosoted Material	\$62.54	7A	4C	
King	Carpenters	Floor Finisher	\$62.44	7A	4C	
King	Carpenters	Floor Layer	\$62.44	7A	4C	
King	Carpenters	Scaffold Erector	\$62.44	7A	4C	
King	Cement Masons	Application of all Composition Mastic	\$62.97	7A	4U	
King	Cement Masons	Application of all Epoxy Material	\$62.47	7A	4U	
King	Cement Masons	Application of all Plastic Material	\$62.97	7A	4U	
King	Cement Masons	Application of Sealing Compound	\$62.47	7A	4U	
King	Cement Masons	Application of Underlayment	\$62.97	7A	4U	
King	Cement Masons	Building General	\$62.47	7A	4U	
King	Cement Masons	Composition or Kalman Floors	\$62.97	7A	4U	
King	Cement Masons	Concrete Paving	\$62.47	7A	4U	
King	Cement Masons	Curb & Gutter Machine	\$62.97	7A	4U	
King	Cement Masons	Curb & Gutter, Sidewalks	\$62.47	7A	4U	
King	Cement Masons	Curing Concrete	\$62.47	7A	4U	
King	Cement Masons	Finish Colored Concrete	\$62.97	7A	4U	
King	Cement Masons	Floor Grinding	\$62.97	7A	4U	
King	Cement Masons	Floor Grinding/Polisher	\$62.47	7A	4U	
King	Cement Masons	Green Concrete Saw, self-powered	\$62.97	7A	4U	
King	Cement Masons	Grouting of all Plates	\$62.47	7A	4U	
King	Cement Masons	Grouting of all Tilt-up Panels	\$62.47	7A	4U	
King	Cement Masons	Guniting Nozzleman	\$62.97	7A	4U	
King	Cement Masons	Hand Powered Grinder	\$62.97	7A	4U	
King	Cement Masons	Journey Level	\$62.47	7A	4U	
King	Cement Masons	Patching Concrete	\$62.47	7A	4U	
King	Cement Masons	Pneumatic Power Tools	\$62.97	7A	4U	
King	Cement Masons	Power Chipping & Brushing	\$62.97	7A	4U	

		Sand Blasting Architectural			
King	Cement Masons	Finish	\$62.97	7A	4U
King	Cement Masons	Screed & Rodding Machine	\$62.97	7A	4U
King	Cement Masons	Spackling or Skim Coat Concrete	\$62.47	7A	4U
King	Cement Masons	Troweling Machine Operator	\$62.97	7A	4U
King	Cement Masons	Troweling Machine Operator on			
King	Cement Masons	Colored Slabs	\$62.97	7A	4U
King	Cement Masons	Tunnel Workers	\$62.97	7A	4U
		Bell/Vehicle or Submersible			
King	Divers & Tenders	Operator (Not Under Pressure)	\$116.20	7A	4C
King	Divers & Tenders	Dive Supervisor/Master	\$79.23	7A	4C
King	Divers & Tenders	Diver	\$116.20	7A	4C
King	Divers & Tenders	Diver On Standby	\$74.23	7A	4C
King	Divers & Tenders	Diver Tender	\$67.31	7A	4C
King	Divers & Tenders	Manifold Operator	\$67.31	7A	4C
King	Divers & Tenders	Manifold Operator Mixed Gas	\$72.31	7A	4C
King	Divers & Tenders	Remote Operated Vehicle			
King	Divers & Tenders	Operator/Technician	\$67.31	7A	4C
King	Divers & Tenders	Remote Operated Vehicle			
King	Divers & Tenders	Tender	\$62.69	7A	4C
King	Dredge Workers	Assistant Engineer	\$56.44	5D	3F
King	Dredge Workers	Assistant Mate (Deckhand)	\$56.00	5D	3F
King	Dredge Workers	Boatmen	\$56.44	5D	3F
King	Dredge Workers	Engineer Welder	\$57.51	5D	3F
King	Dredge Workers	Leverman, Hydraulic	\$58.67	5D	3F
King	Dredge Workers	Mates	\$56.44	5D	3F
King	Dredge Workers	Oiler	\$56.00	5D	3F
King	Drywall Applicator	Journey Level	\$62.44	5D	1H
King	Drywall Tapers	Journey Level	\$62.81	5P	1E
		Electrical Fixture Maintenance			
King	Workers	Journey Level	\$31.99	5L	1E
King	Electricians - Inside	Cable Splicer	\$87.22	7C	4E
King	Electricians - Inside	Cable Splicer (tunnel)	\$93.74	7C	4E
King	Electricians - Inside	Certified Welder	\$84.26	7C	4E
King	Electricians - Inside	Certified Welder (tunnel)	\$90.47	7C	4E
King	Electricians - Inside	Construction Stock Person	\$43.18	7C	4E
King	Electricians - Inside	Journey Level	\$81.30	7C	4E
King	Electricians - Inside	Journey Level (tunnel)	\$87.22	7C	4E
King	Electricians - Motor Shop	Journey Level	\$47.53	5A	1B
		Electricians - Powerline			
King	Construction	Cable Splicer	\$82.39	5A	4D
King	Construction	Certified Line Welder	\$75.64	5A	4D
		Electricians - Powerline			
King	Construction	Groundperson	\$49.17	5A	4D
		Electricians - Powerline			
King	Construction	Heavy Line Equipment Operator	\$75.64	5A	4D
		Electricians - Powerline			
King	Construction	Journey Level Lineperson	\$75.64	5A	4D

8V

King	Electricians - Powerline Construction	Line Equipment Operator	\$64.54	5A	4D	
King	Electricians - Powerline Construction	Meter Installer	\$49.17	5A	4D	8W
King	Electricians - Powerline Construction	Pole Sprayer	\$75.64	5A	4D	
King	Electricians - Powerline Construction	Powderperson	\$56.49	5A	4D	
King	Electronic Technicians	Journey Level	\$53.57	7E	1E	
King	Elevator Constructors	Mechanic	\$97.31	7D	4A	
King	Elevator Constructors	Mechanic In Charge	\$105.06	7D	4A	
King	Fabricated Precast Concrete Products	All Classifications - In-Factory Work Only	\$18.25	5B	1R	
King	Fence Erectors	Fence Erector	\$43.11	7A	4V	8Y
King	Fence Erectors	Fence Laborer	\$43.11	7A	4V	8Y
King	Flaggers	Journey Level	\$43.11	7A	4V	8Y
King	Glaziers	Journey Level	\$66.51	7L	1Y	
King	Heat & Frost Insulators And Asbestos Workers	Journeyman	\$76.61	5J	4H	
King	Heating Equipment Mechanics	Journey Level	\$85.88	7F	1E	
King	Hod Carriers & Mason Tenders	Journey Level	\$52.44	7A	4V	8Y
King	Industrial Power Vacuum Cleaner	Journey Level	\$13.50			1
King	Inland Boatmen	Boat Operator	\$61.41	5B	1K	
King	Inland Boatmen	Cook	\$56.48	5B	1K	
King	Inland Boatmen	Deckhand	\$57.48	5B	1K	
King	Inland Boatmen	Deckhand Engineer	\$58.81	5B	1K	
King	Inland Boatmen	Launch Operator	\$58.89	5B	1K	
King	Inland Boatmen	Mate	\$57.31	5B	1K	
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	\$31.49			1
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$13.50			1
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$24.91			1
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$19.33			1
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	\$20.45			1
King	Insulation Applicators	Journey Level	\$62.44	7A	4C	
King	Ironworkers	Journeyman	\$73.73	7N	1O	
King	Laborers	Air, Gas Or Electric Vibrating Screed	\$50.86	7A	4V	8Y
King	Laborers	Airtrac Drill Operator	\$52.44	7A	4V	8Y
King	Laborers	Ballast Regular Machine	\$50.86	7A	4V	8Y

King	Laborers	Batch Weighman	\$43.11	7A	4V	8Y
King	Laborers	Brick Pavers	\$50.86	7A	4V	8Y
King	Laborers	Brush Cutter	\$50.86	7A	4V	8Y
King	Laborers	Brush Hog Feeder	\$50.86	7A	4V	8Y
King	Laborers	Burner	\$50.86	7A	4V	8Y
King	Laborers	Caisson Worker	\$52.44	7A	4V	8Y
King	Laborers	Carpenter Tender	\$50.86	7A	4V	8Y
King	Laborers	Cement Dumper-paving	\$51.80	7A	4V	8Y
King	Laborers	Cement Finisher Tender	\$50.86	7A	4V	8Y
King	Laborers	Change House Or Dry Shack	\$50.86	7A	4V	8Y
King	Laborers	Chipping Gun (30 Lbs. And Over)	\$51.80	7A	4V	8Y
King	Laborers	Chipping Gun (Under 30 Lbs.)	\$50.86	7A	4V	8Y
King	Laborers	Choker Setter	\$50.86	7A	4V	8Y
King	Laborers	Chuck Tender	\$50.86	7A	4V	8Y
King	Laborers	Clary Power Spreader	\$51.80	7A	4V	8Y
King	Laborers	Clean-up Laborer	\$50.86	7A	4V	8Y
King	Laborers	Concrete Dumper/Chute Operator	\$51.80	7A	4V	8Y
King	Laborers	Concrete Form Stripper	\$50.86	7A	4V	8Y
King	Laborers	Concrete Placement Crew	\$51.80	7A	4V	8Y
King	Laborers	Concrete Saw Operator/Core Driller	\$51.80	7A	4V	8Y
King	Laborers	Crusher Feeder	\$43.11	7A	4V	8Y
King	Laborers	Curing Laborer	\$50.86	7A	4V	8Y
King	Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	\$50.86	7A	4V	8Y
King	Laborers	Ditch Digger	\$50.86	7A	4V	8Y
King	Laborers	Diver	\$52.44	7A	4V	8Y
King	Laborers	Drill Operator (Hydraulic, Diamond)	\$51.80	7A	4V	8Y
King	Laborers	Dry Stack Walls	\$50.86	7A	4V	8Y
King	Laborers	Dump Person	\$50.86	7A	4V	8Y
King	Laborers	Epoxy Technician	\$50.86	7A	4V	8Y
King	Laborers	Erosion Control Worker	\$50.86	7A	4V	8Y
King	Laborers	Faller & Bucker Chain Saw	\$51.80	7A	4V	8Y
King	Laborers	Fine Graders	\$50.86	7A	4V	8Y
King	Laborers	Firewatch	\$43.11	7A	4V	8Y
King	Laborers	Form Setter	\$50.86	7A	4V	8Y
King	Laborers	Gabian Basket Builders	\$50.86	7A	4V	8Y
King	Laborers	General Laborer	\$50.86	7A	4V	8Y
King	Laborers	Grade Checker & Transit Person	\$52.44	7A	4V	8Y
King	Laborers	Grinders	\$50.86	7A	4V	8Y
King	Laborers	Grout Machine Tender	\$50.86	7A	4V	8Y
King	Laborers	Groutmen (Pressure) Including Post Tension Beams	\$51.80	7A	4V	8Y
King	Laborers	Guardrail Erector	\$50.86	7A	4V	8Y
King	Laborers	Hazardous Waste Worker (Level A)	\$52.44	7A	4V	8Y

King	Laborers	Hazardous Waste Worker (Level B)	\$51.80	7A	4V	8Y
King	Laborers	Hazardous Waste Worker (Level C)	\$50.86	7A	4V	8Y
King	Laborers	High Scaler	\$52.44	7A	4V	8Y
King	Laborers	Jackhammer	\$51.80	7A	4V	8Y
King	Laborers	Laserbeam Operator	\$51.80	7A	4V	8Y
King	Laborers	Maintenance Person	\$50.86	7A	4V	8Y
King	Laborers	Manhole Builder-Mudman	\$51.80	7A	4V	8Y
King	Laborers	Material Yard Person	\$50.86	7A	4V	8Y
King	Laborers	Motorman-Dinky Locomotive Nozzleman (Concrete Pump, Green Cutter When Using Combination Of High Pressure Air & Water On Concrete & Rock, Sandblast, Gunite, Shotcrete, Water Blaster, Vacuum Blaster)	\$51.80	7A	4V	8Y
King	Laborers	Pavement Breaker	\$51.80	7A	4V	8Y
King	Laborers	Pilot Car	\$43.11	7A	4V	8Y
King	Laborers	Pipe Layer Lead	\$52.44	7A	4V	8Y
King	Laborers	Pipe Layer/Tailor	\$51.80	7A	4V	8Y
King	Laborers	Pipe Pot Tender	\$51.80	7A	4V	8Y
King	Laborers	Pipe Reliner	\$51.80	7A	4V	8Y
King	Laborers	Pipe Wrapper	\$51.80	7A	4V	8Y
King	Laborers	Pot Tender	\$50.86	7A	4V	8Y
King	Laborers	Powderman	\$52.44	7A	4V	8Y
King	Laborers	Powderman's Helper	\$50.86	7A	4V	8Y
King	Laborers	Power Jacks	\$51.80	7A	4V	8Y
King	Laborers	Railroad Spike Puller - Power	\$51.80	7A	4V	8Y
King	Laborers	Raker - Asphalt	\$52.44	7A	4V	8Y
King	Laborers	Re-timberman	\$52.44	7A	4V	8Y
King	Laborers	Remote Equipment Operator	\$51.80	7A	4V	8Y
King	Laborers	Rigger/Signal Person	\$51.80	7A	4V	8Y
King	Laborers	Rip Rap Person	\$50.86	7A	4V	8Y
King	Laborers	Rivet Buster	\$51.80	7A	4V	8Y
King	Laborers	Rodder	\$51.80	7A	4V	8Y
King	Laborers	Scaffold Erector	\$50.86	7A	4V	8Y
King	Laborers	Scale Person	\$50.86	7A	4V	8Y
King	Laborers	Sloper (Over 20)"	\$51.80	7A	4V	8Y
King	Laborers	Sloper Sprayer	\$50.86	7A	4V	8Y
King	Laborers	Spreader (Concrete)	\$51.80	7A	4V	8Y
King	Laborers	Stake Hopper	\$50.86	7A	4V	8Y
King	Laborers	Stock Piler	\$50.86	7A	4V	8Y
King	Laborers	Swinging Stage/Boatswain Chair Tamper & Similar Electric, Air & Gas Operated Tools	\$43.11	7A	4V	8Y
King	Laborers		\$51.80	7A	4V	8Y

King	Laborers	Tamper (Multiple & Self-propelled)	\$51.80	7A	4V	8Y
King	Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$51.80	7A	4V	8Y
King	Laborers	Toolroom Person (at Jobsite)	\$50.86	7A	4V	8Y
King	Laborers	Topper	\$50.86	7A	4V	8Y
King	Laborers	Track Laborer	\$50.86	7A	4V	8Y
King	Laborers	Track Liner (Power)	\$51.80	7A	4V	8Y
King	Laborers	Traffic Control Laborer	\$46.10	7A	4V	9C
King	Laborers	Traffic Control Supervisor	\$46.10	7A	4V	9C
King	Laborers	Truck Spotter	\$50.86	7A	4V	8Y
King	Laborers	Tugger Operator	\$51.80	7A	4V	8Y
King	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$120.61	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$125.64	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$129.32	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$135.02	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$137.14	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$142.24	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$144.14	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$146.14	7A	4V	9B
King	Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$148.14	7A	4V	9B
King	Laborers	Tunnel Work-Guage and Lock Tender	\$52.54	7A	4V	8Y
King	Laborers	Tunnel Work-Miner	\$52.54	7A	4V	8Y
King	Laborers	Vibrator	\$51.80	7A	4V	8Y
King	Laborers	Vinyl Seamer	\$50.86	7A	4V	8Y
King	Laborers	Watchman	\$39.18	7A	4V	8Y
King	Laborers	Welder	\$51.80	7A	4V	8Y
King	Laborers	Well Point Laborer	\$51.80	7A	4V	8Y
King	Laborers	Window Washer/Cleaner	\$39.18	7A	4V	8Y
King	Laborers - Underground Sewer & Water	General Laborer & Topman	\$50.86	7A	4V	8Y
King	Laborers - Underground Sewer & Water	Pipe Layer	\$51.80	7A	4V	8Y
King	Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	\$39.18	7A	4V	8Y
King	Landscape Construction	Landscape Operator	\$68.02	7A	3K	8X
King	Landscape Maintenance	Groundskeeper	\$17.87			1
King	Lathers	Journey Level	\$62.44	5D	1H	
King	Marble Setters	Journey Level	\$58.82	5A	1M	
King	Metal Fabrication (In Shop)	Fitter	\$15.86			1
King	Metal Fabrication (In Shop)	Laborer	\$13.50			1

King	Metal Fabrication (In Shop)	Machine Operator	\$13.50			1
King	Metal Fabrication (In Shop)	Painter	\$13.50			1
King	Metal Fabrication (In Shop)	Welder	\$15.48			1
King	Millwright	Journey Level	\$63.94	7A	4C	
King	Modular Buildings	Cabinet Assembly	\$13.50			1
King	Modular Buildings	Electrician	\$13.50			1
King	Modular Buildings	Equipment Maintenance	\$13.50			1
King	Modular Buildings	Plumber	\$13.50			1
King	Modular Buildings	Production Worker	\$13.50			1
King	Modular Buildings	Tool Maintenance	\$13.50			1
King	Modular Buildings	Utility Person	\$13.50			1
King	Modular Buildings	Welder	\$13.50			1
King	Painters	Journey Level	\$43.40	6Z	2B	
King	Pile Driver	Crew Tender	\$67.31	7A	4C	
King	Pile Driver	Crew Tender/Technician	\$67.31	7A	4C	
		Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$77.93	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$82.93	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$86.93	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$91.93	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$94.43	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$99.43	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$101.43	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$103.43	7A	4C	
King	Pile Driver	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$105.43	7A	4C	
King	Pile Driver	Journey Level	\$62.69	7A	4C	
King	Plasterers	Journey Level	\$59.42	7Q	1R	
King	Playground & Park Equipment Installers	Journey Level	\$13.50			1
King	Plumbers & Pipefitters	Journey Level	\$89.19	6Z	1G	
King	Power Equipment Operators	Asphalt Plant Operators	\$69.16	7A	3K	8X
King	Power Equipment Operators	Assistant Engineer	\$65.05	7A	3K	8X
King	Power Equipment Operators	Barrier Machine (zipper)	\$68.55	7A	3K	8X
King	Power Equipment Operators	Batch Plant Operator: concrete	\$68.55	7A	3K	8X

King	Power Equipment Operators	Bobcat	\$65.05	7A	3K	8X
		Brokk - Remote Demolition				
King	Power Equipment Operators	Equipment	\$65.05	7A	3K	8X
King	Power Equipment Operators	Brooms	\$65.05	7A	3K	8X
King	Power Equipment Operators	Bump Cutter	\$68.55	7A	3K	8X
King	Power Equipment Operators	Cableways	\$69.16	7A	3K	8X
King	Power Equipment Operators	Chipper	\$68.55	7A	3K	8X
King	Power Equipment Operators	Compressor	\$65.05	7A	3K	8X
		Concrete Finish Machine - Laser				
King	Power Equipment Operators	Screed	\$65.05	7A	3K	8X
		Concrete Pump - Mounted Or				
		Trailer High Pressure Line Pump,				
King	Power Equipment Operators	Pump High Pressure	\$68.02	7A	3K	8X
		Concrete Pump: Truck Mount				
		With Boom Attachment Over 42				
King	Power Equipment Operators	M	\$69.16	7A	3K	8X
		Concrete Pump: Truck Mount				
		With Boom Attachment Up To				
King	Power Equipment Operators	42m	\$68.55	7A	3K	8X
King	Power Equipment Operators	Conveyors	\$68.02	7A	3K	8X
		Cranes friction: 200 tons and				
King	Power Equipment Operators	over	\$71.26	7A	3K	8X
		Cranes: 100 tons through 199				
		tons, or 150' of boom (including				
King	Power Equipment Operators	jib with attachments)	\$69.85	7A	3K	8X
		Cranes: 20 Tons Through 44				
King	Power Equipment Operators	Tons With Attachments	\$68.55	7A	3K	8X
		Cranes: 200 tons- 299 tons, or				
		250' of boom including jib with				
King	Power Equipment Operators	attachments	\$70.57	7A	3K	8X
		Cranes: 300 tons and over or				
		300' of boom including jib with				
King	Power Equipment Operators	attachments	\$71.26	7A	3K	8X
		Cranes: 45 Tons Through 99				
		Tons, Under 150' Of Boom				
King	Power Equipment Operators	(including Jib With Attachments)	\$69.16	7A	3K	8X
		Cranes: A-frame - 10 Tons And				
King	Power Equipment Operators	Under	\$65.05	7A	3K	8X
		Cranes: Friction cranes through				
King	Power Equipment Operators	199 tons	\$70.57	7A	3K	8X
		Cranes: through 19 tons with				
		attachments, A-frame over 10				
King	Power Equipment Operators	tons	\$68.02	7A	3K	8X
King	Power Equipment Operators	Crusher	\$68.55	7A	3K	8X
		Deck Engineer/Deck Winches				
King	Power Equipment Operators	(power)	\$68.55	7A	3K	8X
King	Power Equipment Operators	Derricks, On Building Work	\$69.16	7A	3K	8X
King	Power Equipment Operators	Dozers D-9 & Under	\$68.02	7A	3K	8X
		Drill Oilers: Auger Type, Truck Or				
King	Power Equipment Operators	Crane Mount	\$68.02	7A	3K	8X

King	Power Equipment Operators	Drilling Machine	\$69.85	7A	3K	8X
King	Power Equipment Operators	Elevator And Man-lift: Permanent And Shaft Type	\$65.05	7A	3K	8X
King	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$68.55	7A	3K	8X
King	Power Equipment Operators	Forklift: 3000 Lbs And Over With Attachments	\$68.02	7A	3K	8X
King	Power Equipment Operators	Forklifts: Under 3000 Lbs. With Attachments	\$65.05	7A	3K	8X
King	Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$68.55	7A	3K	8X
King	Power Equipment Operators	Gradechecker/Stakeman	\$65.05	7A	3K	8X
King	Power Equipment Operators	Guardrail Punch	\$68.55	7A	3K	8X
King	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$69.16	7A	3K	8X
King	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$68.55	7A	3K	8X
King	Power Equipment Operators	Horizontal/Directional Drill Locator	\$68.02	7A	3K	8X
King	Power Equipment Operators	Horizontal/Directional Drill Operator	\$68.55	7A	3K	8X
King	Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	\$68.02	7A	3K	8X
King	Power Equipment Operators	Hydralifts/Boom Trucks, 10 Tons And Under	\$65.05	7A	3K	8X
King	Power Equipment Operators	Loader, Overhead 8 Yards. & Over	\$69.85	7A	3K	8X
King	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$69.16	7A	3K	8X
King	Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$68.55	7A	3K	8X
King	Power Equipment Operators	Loaders, Plant Feed	\$68.55	7A	3K	8X
King	Power Equipment Operators	Loaders: Elevating Type Belt	\$68.02	7A	3K	8X
King	Power Equipment Operators	Locomotives, All	\$68.55	7A	3K	8X
King	Power Equipment Operators	Material Transfer Device	\$68.55	7A	3K	8X
King	Power Equipment Operators	Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic)	\$69.85	7A	3K	8X
King	Power Equipment Operators	Motor Patrol Graders	\$69.16	7A	3K	8X
King	Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$69.16	7A	3K	8X
King	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$65.05	7A	3K	8X
King	Power Equipment Operators	Outside Hoists (Elevators And Manlifts), Air Tuggers, Strato	\$68.02	7A	3K	8X

King	Power Equipment Operators	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$68.55	7A	3K	8X
King	Power Equipment Operators	Overhead, Bridge Type: 100 Tons And Over	\$69.85	7A	3K	8X
King	Power Equipment Operators	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$69.16	7A	3K	8X
King	Power Equipment Operators	Pavement Breaker	\$65.05	7A	3K	8X
King	Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$68.55	7A	3K	8X
King	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$68.02	7A	3K	8X
King	Power Equipment Operators	Posthole Digger, Mechanical	\$65.05	7A	3K	8X
King	Power Equipment Operators	Power Plant	\$65.05	7A	3K	8X
King	Power Equipment Operators	Pumps - Water	\$65.05	7A	3K	8X
King	Power Equipment Operators	Quad 9, Hd 41, D10 And Over	\$69.16	7A	3K	8X
King	Power Equipment Operators	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$65.05	7A	3K	8X
King	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$69.16	7A	3K	8X
King	Power Equipment Operators	Rigger and Bellman	\$65.05	7A	3K	8X
King	Power Equipment Operators	Rigger/Signal Person, Bellman (Certified)	\$68.02	7A	3K	8X
King	Power Equipment Operators	Rollagon	\$69.16	7A	3K	8X
King	Power Equipment Operators	Roller, Other Than Plant Mix	\$65.05	7A	3K	8X
King	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$68.02	7A	3K	8X
King	Power Equipment Operators	Roto-mill, Roto-grinder	\$68.55	7A	3K	8X
King	Power Equipment Operators	Saws - Concrete	\$68.02	7A	3K	8X
King	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$68.55	7A	3K	8X
King	Power Equipment Operators	Scrapers - Concrete & Carry All	\$68.02	7A	3K	8X
King	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$69.16	7A	3K	8X
King	Power Equipment Operators	Service Engineers - Equipment	\$68.02	7A	3K	8X
King	Power Equipment Operators	Shotcrete/Gunite Equipment	\$65.05	7A	3K	8X
King	Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$68.02	7A	3K	8X
King	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$69.16	7A	3K	8X
King	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$68.55	7A	3K	8X

		Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$69.85	7A	3K	8X
King	Power Equipment Operators					
		Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$70.57	7A	3K	8X
King	Power Equipment Operators					
King	Power Equipment Operators	Slipform Pavers	\$69.16	7A	3K	8X
King	Power Equipment Operators	Spreader, Topsider & Screedman	\$69.16	7A	3K	8X
King	Power Equipment Operators	Subgrader Trimmer	\$68.55	7A	3K	8X
King	Power Equipment Operators	Tower Bucket Elevators	\$68.02	7A	3K	8X
King	Power Equipment Operators	Tower Crane Up To 175' In Height Base To Boom	\$69.85	7A	3K	8X
King	Power Equipment Operators	Tower Crane: over 175' in through 250' in height, base to boom	\$70.57	7A	3K	8X
King	Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	\$71.26	7A	3K	8X
King	Power Equipment Operators	Transporters, All Track Or Truck Type	\$69.16	7A	3K	8X
King	Power Equipment Operators	Trenching Machines	\$68.02	7A	3K	8X
King	Power Equipment Operators	Truck Crane Oiler/driver - 100 Tons And Over	\$68.55	7A	3K	8X
King	Power Equipment Operators	Truck Crane Oiler/Driver Under 100 Tons	\$68.02	7A	3K	8X
King	Power Equipment Operators	Truck Mount Portable Conveyor	\$68.55	7A	3K	8X
King	Power Equipment Operators	Welder	\$69.16	7A	3K	8X
King	Power Equipment Operators	Wheel Tractors, Farmall Type	\$65.05	7A	3K	8X
King	Power Equipment Operators	Yo Yo Pay Dozer	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Asphalt Plant Operators	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Assistant Engineer	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Barrier Machine (zipper)	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Batch Plant Operator, Concrete	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Bobcat	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Brokk - Remote Demolition Equipment	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Brooms	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Bump Cutter	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cableways	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Chipper	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Compressor	\$65.05	7A	3K	8X

King	Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine - Laser Screed	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Conveyors	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes friction: 200 tons and over	\$71.26	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 20 Tons Through 44 Tons With Attachments	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$70.57	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$71.26	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: A-frame - 10 Tons And Under	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: Friction cranes through 199 tons	\$70.57	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Cranes: through 19 tons with attachments, A-frame over 10 tons	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Crusher	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Deck Engineer/Deck Winches (power)	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Derricks, On Building Work	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Dozers D-9 & Under	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Drilling Machine	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Elevator And Man-lift: Permanent And Shaft Type	\$65.05	7A	3K	8X

King	Power Equipment Operators- Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Forklift: 3000 Lbs And Over With Attachments	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Forklifts: Under 3000 Lbs. With Attachments	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Gradechecker/Stakeman	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Guardrail Punch	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Locator	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Operator	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Hydralifts/Boom Trucks Over 10 Tons	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Hydralifts/Boom Trucks, 10 Tons And Under	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Loader, Overhead 8 Yards. & Over	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Loaders, Plant Feed	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Loaders: Elevating Type Belt	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Locomotives, All	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Material Transfer Device	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic)	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Motor Patrol Graders	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$65.05	7A	3K	8X

King	Power Equipment Operators- Underground Sewer & Water	Outside Hoists (Elevators And Manlifts), Air Tuggers, Strato	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Overhead, Bridge Type: 100 Tons And Over	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Pavement Breaker	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Posthole Digger, Mechanical	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Power Plant	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Pumps - Water	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Quad 9, Hd 41, D10 And Over Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Rigger and Bellman	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Rigger/Signal Person, Bellman (Certified)	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Rollagon	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Rollager	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Roller, Other Than Plant Mix	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Roto-mill, Roto-grinder	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Saws - Concrete	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Scrapers - Concrete & Carry All	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Service Engineers - Equipment	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water		\$68.02	7A	3K	8X

King	Power Equipment Operators- Underground Sewer & Water	Shotcrete/Gunite Equipment	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$70.57	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Slipform Pavers	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Spreader, Topsider & Screedman	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Subgrader Trimmer	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Tower Bucket Elevators	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Tower Crane Up To 175' In Height Base To Boom	\$69.85	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Tower Crane: over 175â€™ through 250â€™ in height, base to boom	\$70.57	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	\$71.26	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Transporters, All Track Or Truck Type	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Trenching Machines	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/driver - 100 Tons And Over	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/Driver Under 100 Tons	\$68.02	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Truck Mount Portable Conveyor	\$68.55	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Welder	\$69.16	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Wheel Tractors, Farmall Type	\$65.05	7A	3K	8X
King	Power Equipment Operators- Underground Sewer & Water	Yo Yo Pay Dozer	\$68.55	7A	3K	8X
King	Power Line Clearance Tree Trimmers	Journey Level In Charge	\$53.10	5A	4A	
King	Power Line Clearance Tree Trimmers	Spray Person	\$50.40	5A	4A	

King	Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$53.10	5A	4A	
King	Power Line Clearance Tree Trimmers	Tree Trimmer	\$47.48	5A	4A	
King	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$36.10	5A	4A	
King	Refrigeration & Air Conditioning Mechanics	Journey Level	\$84.01	6Z	1G	
King	Residential Brick Mason	Journey Level	\$58.82	5A	1M	
King	Residential Carpenters	Journey Level	\$32.06			1
King	Residential Cement Masons	Journey Level	\$29.25			1
King	Residential Drywall Applicators	Journey Level	\$46.43	7A	4C	
King	Residential Drywall Tapers	Journey Level	\$47.04	5P	1E	
King	Residential Electricians	Journey Level	\$36.01			1
King	Residential Glaziers	Journey Level	\$45.90	7L	1H	
King	Residential Insulation Applicators	Journey Level	\$29.87			1
King	Residential Laborers	Journey Level	\$26.18			1
King	Residential Marble Setters	Journey Level	\$27.38			1
King	Residential Painters	Journey Level	\$27.80			1
King	Residential Plumbers & Pipefitters	Journey Level	\$39.43			1
King	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$54.12	5A	1G	
King	Residential Sheet Metal Workers	Journey Level (Field or Shop)	\$51.89	7F	1R	
King	Residential Soft Floor Layers	Journey Level	\$51.07	5A	3J	
King	Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$50.89	5C	2R	
King	Residential Stone Masons	Journey Level	\$58.82	5A	1M	
King	Residential Terrazzo Workers	Journey Level	\$54.06	5A	1M	
King	Residential Terrazzo/Tile Finishers	Journey Level	\$24.39			1
King	Residential Tile Setters	Journey Level	\$21.04			1
King	Roofers	Journey Level	\$55.02	5A	3H	
King	Roofers	Using Irritable Bituminous Materials	\$58.02	5A	3H	
King	Sheet Metal Workers	Journey Level (Field or Shop)	\$85.88	7F	1E	
King	Shipbuilding & Ship Repair	New Construction Boilermaker	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Carpenter	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Crane Operator	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Electrician	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$76.61	5J	4H	
King	Shipbuilding & Ship Repair	New Construction Laborer	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Machinist	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Operating Engineer	\$36.36	7V		1

King	Shipbuilding & Ship Repair	New Construction Painter	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Pipefitter	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Rigger	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Sheet Metal	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Shipfitter	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	\$36.36	7V		1
King	Shipbuilding & Ship Repair	New Construction Welder / Burner	\$36.36	7V		1
King	Shipbuilding & Ship Repair	Ship Repair Boilermaker	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Carpenter	\$44.95	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Crane Operator	\$45.06	7Y	4K	
King	Shipbuilding & Ship Repair	Ship Repair Electrician	\$46.22	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$76.61	5J	4H	
King	Shipbuilding & Ship Repair	Ship Repair Laborer	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Machinist	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Operating Engineer	\$45.06	7Y	4K	
King	Shipbuilding & Ship Repair	Ship Repair Painter	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Pipefitter	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Rigger	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Sheet Metal	\$46.15	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Shipwright	\$44.95	7X	4J	
King	Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	\$45.06	7Y	4K	
King	Sign Makers & Installers (Electrical)	Journey Level	\$49.44		0	1
King	Sign Makers & Installers (Non-Electrical)	Journey Level	\$31.96		0	1
King	Soft Floor Layers	Journey Level	\$51.07	5A	3J	
King	Solar Controls For Windows	Journey Level	\$13.50			1
King	Sprinkler Fitters (Fire Protection)	Journey Level	\$82.39	5C	1X	
King	Stage Rigging Mechanics (Non-Structural)	Journey Level	\$13.50			1
King	Stone Masons	Journey Level	\$58.82	5A	1M	
King	Street And Parking Lot Sweeper Workers	Journey Level	\$19.09			1
King	Surveyors	Assistant Construction Site Surveyor	\$68.02	7A	3K	8X
King	Surveyors	Surveyor	\$65.05	7A	3K	8X
King	Surveyors	Chainman	\$69.16	7A	3K	8X
King	Telecommunication Technicians	Journey Level	\$53.57	7E	1E	
King	Telephone Line Construction - Outside	Cable Splicer	\$41.81	5A	2B	
King	Telephone Line Construction - Outside	Hole Digger/Ground Person	\$23.53	5A	2B	
King	Telephone Line Construction - Outside	Installer (Repairer)	\$40.09	5A	2B	

King	Telephone Line Construction - Outside	Special Aparatus Installer I	\$41.81	5A	2B	
King	Telephone Line Construction - Outside	Special Apparatus Installer II	\$40.99	5A	2B	
King	Telephone Line Construction - Outside	Telephone Equipment Operator (Heavy)	\$41.81	5A	2B	
King	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$38.92	5A	2B	
King	Telephone Line Construction - Outside	Telephone Lineperson	\$38.92	5A	2B	
King	Telephone Line Construction - Outside	Television Groundperson	\$22.32	5A	2B	
King	Telephone Line Construction - Outside	Television Lineperson/Installer	\$29.60	5A	2B	
King	Telephone Line Construction - Outside	Television System Technician	\$35.20	5A	2B	
King	Telephone Line Construction - Outside	Television Technician	\$31.67	5A	2B	
King	Telephone Line Construction - Outside	Tree Trimmer	\$38.92	5A	2B	
King	Terrazzo Workers	Journey Level	\$54.06	5A	1M	
King	Tile Setters	Journey Level	\$54.06	5A	1M	
King	Tile, Marble & Terrazzo Finishers	Finisher	\$44.89	5A	1B	
King	Traffic Control Stripers	Journey Level	\$47.68	7A	1K	
King	Truck Drivers	Asphalt Mix Over 16 Yards	\$61.59	5D	4Y	8L
King	Truck Drivers	Asphalt Mix To 16 Yards	\$60.75	5D	4Y	8L
King	Truck Drivers	Dump Truck	\$60.75	5D	4Y	8L
King	Truck Drivers	Dump Truck & Trailer	\$61.59	5D	4Y	8L
King	Truck Drivers	Other Trucks	\$61.59	5D	4Y	8L
King	Truck Drivers - Ready Mix	Transit Mix	\$61.59	5D	4Y	8L
King	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$17.71			1
King	Well Drillers & Irrigation Pump Installers	Oiler	\$13.50			1
King	Well Drillers & Irrigation Pump Installers	Well Driller	\$18.00			1



Certification of Compliance with Wage Payment Statutes Form

Effective July 23, 2017, every bidder on a public works project must submit, as part of their bid package, a sworn statement that they have not willfully violated wage payment laws within the past three years in order to be considered a responsible bidder. (See [RCW 39.04.350](#) as modified by [SSB 5301](#), Laws of 2017, ch. 258.)

The following form was created and reviewed by MRSC staff in June 2017 to help cities, counties, and special purpose districts meet this requirement and obtain the necessary information from bidders. This form is designed to be used “as-is,” with minimal modifications to tailor it to your own jurisdiction, but you may modify it further if necessary or use it as a basis to develop your own certification form.

Place logo here

Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date April 8, 2020, that the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

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

Bidder

Signature of Authorized Official*

Printed Name

Title

Date

City

State

Check One:

Individual Partnership Joint Venture Corporation

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

If a co-partnership, give firm name under which business is transacted:

** If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01026 – SCHEDULE OF VALUES

PART 1 – GENERAL

1.1 GENERAL

- A. This Section defines the process whereby the Schedule of Values (lump sum price breakdown) shall be developed. Monthly progress payment amounts shall be determined from the monthly progress updates of the Progress Schedule.

1.2 DETAILED SCHEDULE OF VALUES

- A. The CONTRACTOR shall prepare and submit two (2) copies of a detailed Schedule of Values to the PROJECT REPRESENTATIVE not less than five (5) calendar days prior to the date of the Pre-Construction Conference. Because the ultimate requirement is to develop a detailed Schedule of Values sufficient to determine the appropriate monthly progress payment amounts, sufficient detailed breakdown shall be provided to meet this requirement. The PROJECT REPRESENTATIVE shall be the sole judge of acceptable numbers, details and description of values established. If, in the opinion of the PROJECT REPRESENTATIVE, a greater number of Schedule of Values is necessary, the CONTRACTOR shall add the additional items so identified by the PROJECT REPRESENTATIVE.

1. The minimum detail of breakdown of the major Work components is indicated below. Greater detail shall be provided as directed by the PROJECT REPRESENTATIVE.

- a. **Mobilization**
- b. **TESC and Construction Fencing**
- c. **Clearing**
- d. **Grading incl. Haul**
- e. **Sawcutting**
- f. **Striping Removal**
- g. **Concrete Pavement Removal**
- h. **Curb and Gutter Removal**
- i. **5/8" minus Crushed Rock**
- j. **Concrete Curb and Gutter**
- k. **Concrete Sidewalk and Patio**
- l. **Detectable Warning Surface**
- m. **Striping**
- n. **Landscaping/Property Restoration**
- o. **Plant Establishment/Maintenance**
- p. **Add. #1 – RRFB and Hardware**
- q. **Add. #2 – Exercise Area and Equipment Installation**
- r. **Add. #3 – PSE Conduits and Street Light Pole Tubes**

2. Each line item on the Schedule of Values shall be identified with the Construction Specifications Institute (CSI) number and title of the respective major Specifications Sections. Each Section of the Technical Specifications shall be identified separately on the Schedule of Values. Each item shall include a directly proportionate amount of the CONTRACTOR's overhead and profit. All figures shall be rounded off to the nearest dollar amount and the sum of all scheduled costs shall equal the Contract Price.

3. For items on which progress payments will be requested for materials stored on-Site, but not installed, CONTRACTOR shall breakdown the cost of materials delivered and unloaded and indicate the total installed value as an attachment to each Application for Payment.
- B. At the Pre-Construction Conference, the CONTRACTOR and PROJECT REPRESENTATIVE shall review the Schedule of Values to determine any necessary adjustments to the values and to determine if sufficient detail has been proposed. Any adjustments deemed necessary to the value allocation or level of detail shall be made by the CONTRACTOR and a revised Schedule of Values shall be submitted within five (5) calendar days.
- C. Following acceptance of the Schedule of Values by the PROJECT REPRESENTATIVE, the Schedule of Values will be the basis for all monthly progress payments. Payments will be based upon the percentage of completion of each item shown on the Schedule of Values as of the date of each Application for Payment, multiplied by the value shown on the Schedule of Values for such item. The sum total of all items shall then be the CONTRACTOR's "total earnings to date".

1.3 CHANGES TO SCHEDULE OF VALUES

- A. In the event that the CONTRACTOR and PROJECT REPRESENTATIVE agree to make adjustments to the Schedule of Values because of inequities discovered in the original accepted detailed Schedule of Values, increases and equal decreases to values for activities shall be made.
- B. In the event of a Change Order which increases or decreases the Contract Price, the Schedule of Values shall be increased or decreased accordingly by reference to such Change Order.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01026

SECTION 01027 – APPLICATION FOR PAYMENT

PART 1 – GENERAL

1.1 PAYMENT

- A. Payment will be made through the City of Duvall Department of Public Works.

1.2 PREPARATION OF APPLICATION FOR PROGRESS PAYMENTS

- A. Each Application for Payment shall contain the following required information:
 - 1. Change Orders approved prior to the submittal date of the Application for Payment;
 - 2. A summary of the dollar values which equals the respective total indicated on the continuation sheets;
 - 3. The signature of the responsible individual for the CONTRACTOR;

1.3 CONTINUATION SHEETS

- A. All items shown on the Schedule of Values shall be listed by item number, description of Work and scheduled dollar value.
- B. For each item, the percentage of completion shall be shown and the total dollar value completed as of the date of the Application for Payment. Values shall be rounded off to the nearest dollar. If no work has been performed on an item, enter zero (0).
- C. For items on which progress payments will be requested for materials stored on-Site, but not installed, CONTRACTOR shall describe the specific material, breakdown the cost of materials delivered and unloaded and indicate the total installed value. Upon request by the PROJECT REPRESENTATIVE, the CONTRACTOR shall also provide invoices from the Supplier for the material.
- D. At the end of the continuation sheets, list each Change Order approved prior to the date of the Application for Payment by Change Order number and description. For each such Change Order show the percentage of completion as of the date of the Application for Payment, the dollar value of the Change Order, and the total dollar value completed as of the date of the Application for Payment.

1.4 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. Upon request by the PROJECT REPRESENTATIVE, CONTRACTOR shall submit such substantiating data for an Application for Payment as the PROJECT REPRESENTATIVE may require. The information shall be submitted with a cover letter that sets forth the following:
 - 1. The Project name;
 - 2. The date and number of the Application for Payment; and
 - 3. A detailed listing of the enclosures.

1.5 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Prepare the final Application for Payment as specified for progress payments. Use continuation sheets as specified for progress payments for presenting the final accounting statement.

1.6 SUBMITTAL PROCEDURE

- A. See Section 13.3 of the General Conditions.
- B. Submit two (2) duplicate originals of each Application for Payment with original signatures. Photocopies will not be accepted.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01027

SECTION 01030 – BASE BID AND ALTERNATE BID ITEMS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. It is the intent of the CITY to award an Agreement for the Base Bid construction of the Project as indicated by the Contract Documents. However, should additional funds become available or adjustments to the Agreement be required, the Alternate Bid Items listed in this Section will be considered.

1.2 BASE BID

- A. The Base Bid is the Work to be accomplished as described in the Contract Documents with the exception of the Alternate Bid Items as clearly set forth in this Section.

1.3 ALTERNATE BID ITEMS: ALTERNATES AND UNIT PRICES

- A. The Alternate Bid items identified below may be used as additive or deductive items. The cost or credit for each Alternate Bid Item is the net addition to or deduction from the Base Bid to incorporate Alternate Item into the Work. No other adjustments are made to the Base Bid. If a unit price is called for on the Bid Form for a given item of Work, CONTRACTOR shall quote a single unit price which shall apply to either increase or decrease the quantity for that Work item. If two unit prices are quoted, the lower price will apply to both increases and decreases.
- B. The CONTRACTOR shall modify or adjust affected adjacent work as necessary to completely integrate work of the alternate or unit price item into the Work.
- C. Include as part of each Alternate Bid Item, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

1.4 ALTERNATES

- A. Alternate: An amount proposed by bidders stated on the Form of Bid/Bid Schedule for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid Amount if the CITY decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the contract Documents.
 - 1. Additive #1: Installation of Rectangular Rapid Flashing Beacons and associated hardware.
 - 2. Additive #2: Installation of Exercise Equipment, Exercise Area Curb and Engineered Wood Fiber.
 - 3. Additive #3: Installation of PSE Conduits and Street Light Pole Tubes

1.5 UNIT PRICES

- A. Unit prices identify increments of work that the CITY may choose to increase or decrease the extent of work of the PROJECT. The unit prices identified below may be used as additive or deductive items. The CONTRACTOR shall quote a single unit price which shall apply to either

increase or decrease the quantity for that Work item. If two prices are quoted, the lower price will apply to both increases and decreases.

PART 2 – PRODUCTS

2.1 GENERAL

- A. All material, equipment and products associated with the construction of the Alternate Bid Items, are described elsewhere in the Specifications.

PART 3 – EXECUTION

3.1 GENERAL

- A. All work, labor, techniques, methods and requirements associated with the construction of Alternate Bid Items as described elsewhere in the Specifications.

END OF SECTION 01030

SECTION 01035 – CHANGE PROPOSALS AND CHANGE ORDERS

PART 1 – GENERAL

1.1 FORMATS

- A. The format for Change Proposals and Change Orders will be reviewed and discussed at the Pre-Construction Conference.

1.2 PROCEDURES

- A. Two (2) copies of Change Orders shall be prepared and submitted to the PROJECT REPRESENTATIVE.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 CHANGE PROPOSAL REQUESTS

- A. Changes may be initiated by the PROJECT REPRESENTATIVE through a Change Proposal submitted to the CONTRACTOR. The Change Proposal will include:
 - 1. A description of the changes, materials, equipment and products and the location of the modification in the Work;
 - 2. Supplementary or revised drawings; and
 - 3. The reason for requesting the change.
- B. The Change Proposal request is for informational purposes only and is not an authorization to proceed with the change nor to stop Work in progress.
- C. A sample Change Proposal form is attached at the end of this Section.

3.2 CONTRACTOR PROPOSAL

- A. Changes may be initiated by CONTRACTOR through a Change Proposal submitted to the PROJECT REPRESENTATIVE. The Change Proposal shall include:
 - 1. The effect of the change on the Contract Price and Contract Time;
 - 2. The following documentation supporting the change;
 - a. Labor required;
 - b. Equipment required;
 - c. Materials and products required;
 - d. Taxes, insurance and bonds required;
 - e. Documented credit for work deleted from the Work;
 - f. Overhead and profit;
 - g. Justification for any changes in the Contract Time;
 - h. Subcontractor's and Supplier's invoices and billings.

- B. The Change Proposal request is for informational purposes only and is not an authorization to proceed with the change nor to stop Work in progress.

3.3 DETERMINATION OF PAYMENTS

- A. Payments for Change Orders will be made in accordance with the Contract Documents.
- B. Payment for Change Orders shall be full payment for all work done by Change Order. The payment shall cover all expenses of every nature, kind and description, including all overhead expenses, profit, B & O taxes and any other federal or state revenue acts (other than sales tax), premiums on public liability and property damage insurance, and the costs of bonds.

END OF SECTION 01035

SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract Documents, including General Conditions and Supplementary Conditions (if any) and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for cutting and patching.
- B. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
 - 1. Requirements of this Section apply to mechanical and electrical installations. Refer to Division-15 and Division-16 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.
- C. Demolition of selected portions of the building for alterations is included in Section "Selective Demolition."

1.3 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.
- B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the PROJECT REPRESENTATIVE's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding if unsafe or unsatisfactory conditions are encountered.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

3.3 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer and comply with the original installer's recommendations.
 - 1. In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
 - 4. Comply with requirements of applicable Sections of Division-2 where cutting and patching requires excavating and backfilling.
 - 5. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 2. 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.
 3. Where removal of walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space to provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary to achieve uniform color and appearance.
 - a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken containing the patch, after the patched area has received primer and second coat.
 4. Patch, repair or re-hang existing ceilings as necessary to provide an even plane surface of uniform appearance.

3.4 CLEANING

- A. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 01045

CUTTING AND PATCHING
01045-3

SECTION 01095 – DEFINITIONS AND STANDARDS

PART 1 – GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the General Conditions.
- B. Indicated: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other Sections or schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as shown, noted, scheduled, and specified are used to help the reader locate the reference. Location is not limited.
- C. Directed: Terms such as directed, requested, authorized, selected, approved, required, and permitted mean directed by the PROJECT REPRESENTATIVE, requested by the PROJECT REPRESENTATIVE and similar phrases.
- D. Accepted: The term accepted, when used in conjunction with the PROJECT REPRESENTATIVE's duties and responsibilities as stated in the Contract Documents.
- E. Installer: An installer is the CONTRACTOR or another entity engaged by the CONTRACTOR, either as an employee, Subcontractor or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. Trades: Using terms such as carpentry does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as carpenter. It also does not imply that requirements specified apply exclusively to trade-persons of the corresponding generic name.
- F. Testing Agencies: A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with the standards in effect as of the date of the opening of Bids.
- C. Conflicting Requirements: Where compliance with two or more standards is specified and where the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different but apparently equal and uncertainties to the PROJECT REPRESENTATIVE for a decision before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum

within reasonable limits to comply with the requirements. Indicated numeric values are minimum or maximum, as appropriate for the context of the requirements.

- D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound in the Contract Documents.
1. Where copies of applicable standards are needed to perform a required construction activity, the CONTRACTOR shall obtain copies from the publication source.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in the Contract Documents are defined to mean the recognized name of the trade association. Names and addresses are subject to change and are believed, but not assured, to be accurate and up-to-date as of the date of the Contract Documents. The following list may not be complete. Refer to the "Encyclopedia of Associations" published by Gale Research Co. available in most libraries.

ACI	American Concrete Institute PO Box 19150 Detroit, MI 48219	ACPA	American Concrete Pipe Association 8300 Boone Blvd., Suite 400 Vienna, VA 22181
ADC	Air Diffusion Council One Illinois Center, Suite 200 111 East Wacker Drive Chicago, IL 60601-4298	AGA	American Gas Association 1515 Wilson Blvd. Arlington, VA 22209
AIA	American Institute of Architects 1735 New York Ave. NW Washington D.C. 20006	AISC	American Institute of Steel Const. One East Wacker Drive, #3100 Chicago, IL 60601-2001
ANSI	American National Standards Institute 11 West 42 nd Street, 13 th Floor New York, NY 10036	ASHRAE	American Society of Heating, Refrig. and Air Conditioning Engineers 1791 Tullie Circle NE Atlanta, GA 30329
ASME	American Society of Mechanical Engineers 345 East 47 th Street New York, NY 10017	ASPE	American Society of Plumbing Eng. 3617 Thousand Oaks Blvd., Suite 210 Westlake, CA 91362
ASSE	American Society of Sanitary Engineering PO Box 40362 Bay Village, OH 44140	ASTM	American Society for Test. & Materials 1916 Race Street Philadelphia, PA 19103-1187
AWI	Architectural Woodwork Institute PO Box 1550 13924 Braddock Rd., Suite 100 Centerville, VA 22020	AWPA	American Wood Preservers' Association PO Box 286 Woodstock, MD 21163-0286

AWS	American Welding Society 550 LeJeune Rd. NW Miami, FL 33135	BHMA	Builders' Hardware Mfg. Association 355 Lexington Ave., 17 th Floor New York, NY 10017
CRSI	Concrete Reinforcing Steel Inst. 933 Plum Grove Rd. Schaumburg, IL 60173	CTI	Ceramic Tile Institute of America 28720 Roadside Dr., Suite 300 Agora Hills, CA 91301-3321
FGMA	Flat Glass Marketing Assoc. White Lakes Professional Bldg. 3310 SW Harrison Street Topeka, KS 66611-2279	FM	Factory Mutual Research Organization 1151 Boston-Providence Turnpike PO Box 9102 Norwood, MA 02062
GA	Gypsum Association 810 First Street NE, Suite 510 Washington DC 20002	IEEE	Inst. Of Electrical & Electronic Engrs. 445 Hoes Lane PO Box 1331 Piscataway, NJ 08855-1331
NCMA	National Concrete Masonry Assoc. 2302 Horse Pen Rd. Herndon, VA 22071-3406	NEC	National Electrical Code (from NFPA)
NECA	National Electrical Mfg's Assoc. 2101 L Street NW, Suite 300 Washington DC 20037	NFPA	National Fire Protection Assoc. One Batterymarch Park PO Box 9101 Quincy, MA 02269-9101
NRCA	National Roofing Contractors Assoc. 10255 W Higgins Rd., Suite 600 Rosemont, IL 60018-5607	NSF	National Sanitation Foundation 3475 Plymouth Rd. PO Box 130140 Ann Arbor, MI 48113-0140
NWMA	National Woodwork Mfg's Assoc. (now NWWDA)	NWWDA	National Wood Window & Door Assoc. 1400 E Touhy Ave., #G-54 Des Plaines, IL 60018
SDI	Steel Door Institute 30200 Detroit Rd. Cleveland, OH 44145	SMACNA	Sheet Metal and Air Conditioning Contractors National Assoc. 4201 Lafayette Center Dr. Chantilly, VA 22021
SSPC	Steel Structure Painting Council 4400 Fifth Ave. Pittsburgh, PA 15213-2683	TCA	Tile Council of America PO Box 326 Princeton, NJ 08542-0326
UL	Underwriters Laboratories 333 Pfingsten Rd. Northbrook, IL 60062	WWPA	Western Wood Products Assoc. Yeon Bldg. 522 SW 5 th Ave., Suite 500 Portland, OR 97204-2122
WWPA	Woven Wire Products Assoc. 2515 N Nordica Ave. Chicago, IL 60635		

F. Federal Government Agencies: Names and titles of federal government standard or specification producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard or specification producing agencies of the federal government. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents.

DS	Commercial Standard (US Department of Commerce) Government Printing Office Washington DC 20402	DOT	Department of Transportation 400 Seventh Street SW Washington DC 20460
EPA	Environmental Protection Agency 401 M Street SW Washington DC 20460	OSHA	Occupational Safety & Health Administration (US Department of Labor) 200 Constitution Ave. NW Washington DC 20210
PS	Product Standard of NBS (US Department of Commerce) Government Printing Office Washington DC 20402		

1.3 GOVERNING REGULATIONS AND AUTHORITIES

- A. All construction shall be in accordance with the building codes referenced hereinafter.
- B. Building Code shall mean the Uniform Building Code adopted by the City of Duvall

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01095

DEFINITIONS AND STANDARDS
01095-4

SECTION 01200 – PROJECT MEETINGS

PART 1 - GENERAL

1.1 PRE-BID CONFERENCE

- A. An optional pre-bid conference is scheduled for: 10:00 am, Thursday the 4th of June, 2020 at NE 145th Lane and 275th Avenue NE.

1.2 PRE-CONSTRUCTION CONFERENCE MEETING

- A. The exact date of the Pre-Construction Conference will be scheduled after the Bids have been opened, reviewed, and the Project has been awarded.

1.3 PROGRESS MEETINGS

- A. Weekly progress meeting shall be scheduled for the duration of the construction period. The day of the week and time of the meeting shall be coordinated at the Pre-Construction Conference.
- B. The PROJECT REPRESENTATIVE will record minutes, which will include all significant proceedings and decisions, and will summarize questions raised.
- C. The CITY will reproduce and distribute copies of the minutes within three days of each meeting to:
 - 1. All meeting participants; and
 - 2. All parties affected by decisions

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01200

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract Documents, including General Conditions, Supplementary General Conditions (if any) and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including:
 - 1. Submittal schedule.
 - 2. Shop Drawings.
 - 3. Product Data.
 - 4. Samples.
- B. Administrative Submittals: Refer to Division-0 Sections, the General Conditions, other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:
 - 1. Permits.
 - 2. Applications for payment.
 - 3. Performance and payment bonds.
 - 4. Insurance certificates.
 - 5. List of Subcontractors.
- C. The Schedule of Values submittal is included in Section 01026 "Schedule of Values". See also Section 01027 "Applications for Payment."
- D. Inspection and test reports are included in Section 01400 "Quality Control" and elsewhere in the Contract Documents.
- E. Contractor's Progress Schedule submittal is included in Section 01310 "Progress Schedule."

1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The PROJECT REPRESENTATIVE reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 3. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
 - a. Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The PROJECT REPRESENTATIVE will promptly advise the CONTRACTOR when a submittal being processed must be delayed for coordination.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow two weeks for reprocessing each submittal.
 - d. No extension of the Contract Times will be authorized because of failure to transmit submittals to the PROJECT REPRESENTATIVE sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal, project name, and CONTRACTOR's name on the label or title block.
1. Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the CONTRACTOR's review and approval markings and the action taken.
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from CONTRACTOR to PROJECT REPRESENTATIVE using a transmittal form. Submittals received from sources other than the CONTRACTOR will be returned without action.

1.4 SUBMITTAL SCHEDULE

- A. After development and approval of CONTRACTOR's Progress Schedule, prepare a complete schedule of submittals. Submit the schedule within 10 days of the date of approval of the Contractor's Progress Schedule.
1. Coordinate submittal schedule with the List of Subcontractors, Schedule of Values and the list of products, if any, as well as the CONTRACTOR's Progress Schedule.
 2. Prepare the schedule in chronological order; include submittals required during the first 90 days of construction. Provide the following information:

- a. Scheduled date for the first submittal.
 - b. Submittal category, related Section number and name.
- B. Distribution: Following response to initial submittal, print and distribute copies to the Project Representative, Subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room, if any, and temporary field office.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.5 SHOP DRAWINGS

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis for Shop Drawings. Standard information prepared without specific reference to the Project are not considered Shop Drawings.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
1. Dimensions.
 2. Identification of products and materials included.
 3. Compliance with specified standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurement.
 6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48".
 7. Initial Submittal: Submit one correctable translucent reproducible print and one blue- or black-line print for the PROJECT REPRESENTATIVE's review.
 8. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.

1.6 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

- B. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
1. Manufacturer's printed recommendations.
 2. Compliance with recognized trade association standards.
 3. Compliance with recognized testing agency standards.
 4. Application of testing agency labels and seals.
 5. Notation of dimensions verified by field measurement.
 6. Notation of coordination requirements.
- C. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
- D. Submittals: Submit 2 copies of each required submittal; submit 4 copies where required for maintenance manuals. The PROJECT REPRESENTATIVE will retain one, and will return the other marked with action taken and corrections or modifications required.

1.7 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.
1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the PROJECT REPRESENTATIVE's Sample. Include the following:
 - a. Generic description of the Sample.
 - b. Sample source.
 - c. Product name or name of manufacturer.
 - d. Compliance with recognized standards.
 2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.

- b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
- 3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
 - a. Preliminary submittals will be reviewed and returned with the PROJECT REPRESENTATIVE's mark indicating selection and other action.
- 4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 3 sets; two will be returned marked with the action taken.
- 5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.
 - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- 6. Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.
 - a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.8 PROJECT REPRESENTATIVE'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the PROJECT REPRESENTATIVE will review each submittal, mark to indicate action taken, and return promptly.
 - 1. Compliance with specified characteristics is the CONTRACTOR's responsibility.
- B. Action Stamp: The PROJECT REPRESENTATIVE will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked to indicate the action taken.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (NOT APPLICABLE).

END OF SECTION 01300

SUBMITTALS
01300-5

SECTION 01310 – PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 SUBMISSIONS

- A. CONTRACTOR shall prepare and submit for approval a fully developed, horizontal bar-chart type construction Progress Schedule to the PROJECT REPRESENTATIVE at the Pre-Construction Conference.
- B. Submit two (2) copies.
- C. CONTRACTOR shall submit revised Progress Schedules periodically, as agreed upon at the Pre-construction Conference.

1.2 CONTENT

- A. The Progress Schedule shall show a complete sequence of construction by major Specification number and title, using the same breakdown of units of the Work as indicated in the Schedule of Values per Section 01026. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
- B. The Progress Schedule shall show beginning and completion dates for each major element of installation. Within each time bar indicate estimated completion percentage in 10% increments. As Work progresses, place a contrasting mark in each bar to indicate actual completion.
- C. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
- D. Coordinate the Progress Schedule with the Schedule of Values, List of Subcontractors, submittals schedule, progress reports, Applications for Payment and other schedules.
- E. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the PROJECT REPRESENTATIVE's procedures necessary for preparation of a Notice of Completion.

1.3 DISTRIBUTION

- A. Following approval of the Progress Schedule, print and distribute copies to the PROJECT REPRESENTATIVE, Subcontractors, and other parties required to comply with the scheduled dates. Post copies in the Project meeting room, if any, and the temporary field office.
- B. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

1.4 UPDATING

- A. Revise the Progress Schedule after each meeting or activity, where revisions have been recognized or made (unless otherwise agreed at the Pre-Construction Conference). Issue the updated schedule concurrently with the report of each meeting.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 COORDINATION OF WORK

- A. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities, including minor elements involved in the sequence of work.

END OF SECTION 01310

PROGRESS SCHEDULE
01310-2

SECTION 01400 – QUALITY CONTROL

PART 1 - GENERAL

1.1 SUMMARY OF WORK

- A. All workmanship and materials shall be subject to inspection by the PROJECT REPRESENTATIVE, who may select samples of materials in such number and quantities as he/she may deem necessary to determine their qualities.
- B. All rejected materials and Work shall be promptly removed by the CONTRACTOR from the Site and adjacent surroundings.
- C. All rejected Work or materials shall be promptly replaced to the satisfaction of the PROJECT REPRESENTATIVE.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 INSPECTION AND TESTING

- A. The CONTRACTOR shall furnish samples of materials for testing, if requested by the PROJECT REPRESENTATIVE, at no additional cost. Tests by the PROJECT REPRESENTATIVE will be made in accordance with commonly recognized standards of national materials testing organizations and any other such special methods as deemed necessary.
- B. Any and all material necessary for the construction of any part of the Work and associated improvements not specified shall be of good quality and acceptable to the PROJECT REPRESENTATIVE.

3.2 SAMPLES

- A. The CONTRACTOR shall prepare and submit such samples as are required elsewhere in the Contract Documents at such time as is necessary to allow sufficient time for modification of the Work based on evaluation of samples.

3.3 FINAL INSPECTION

- A. Final inspection shall take place when all requirements for full completion of the Work have been completed, including all punch list items as outlined in the Contract Documents. Final inspection of the Work by the PROJECT REPRESENTATIVE will be made no later than five (5) working days of receipt of CONTRACTOR's written request for final inspection. The Work will be deemed complete as of the date of such inspection if, upon inspection, the PROJECT REPRESENTATIVE finds that no further Work remains to be done.
- B. Before final payment will be made, defects or omissions noted on this inspection must be made good by the CONTRACTOR without additional cost to the CITY. See Section 01700 Contract Closeout.

END OF SECTION 01400

SECTION 01510 – TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work and requirements include, but are not limited to the following:
 - 1. CONTRACTOR, at its cost, shall furnish, install, maintain, and protect all temporary facilities and utilities required for the Work and remove all temporary facilities and utilities on completion of the Work.
 - 2. All installations are required to be safe, non-hazardous, and sanitary. They are to be protective of persons and property, and be free of deleterious effects.

PART 2 - PRODUCTS

2.1 TEMPORARY SERVICES - GENERAL

- A. On-Site utilities such as electrical power and restrooms may not be used by the CONTRACTOR during the execution of the Work without prior written approval of the PROJECT REPRESENTATIVE.
- B. Materials and facilities may be new or used, but must be of adequate capacity for required usage.
- C. Materials and facilities must not create unsafe conditions, nor violate applicable Laws and Regulations.

2.2 TEMPORARY ELECTRICAL AND LIGHTING

- A. The CONTRACTOR shall provide a temporary electrical power source and lighting as required for the Work.

2.3 TEMPORARY WATER

- A. The CONTRACTOR shall provide temporary water and potable water as required for the Work.

2.4 TEMPORARY SANITARY FACILITIES

- A. The CONTRACTOR shall provide sanitary facilities in compliance with Laws and Regulations. CONTRACTOR shall comply with all Laws and Regulations of the State Board of Health governing sanitation of places to work, WAC 248-62.
 - 1. CONTRACTOR shall place temporary sanitary facilities where directed by the PROJECT REPRESENTATIVE at the time the Work is started and maintain them in a sanitary condition.
 - 2. CONTRACTOR shall provide such temporary sanitary facilities as are necessary in accordance with the Supplier's recommendations as to capacity based on maintenance schedules.
 - 3. The CITY'S facilities will not be available to the CONTRACTOR.

- B. CONTRACTOR shall service, clean, and maintain all temporary sanitary facilities and enclosures.
- C. CONTRACTOR shall pay for all costs of installation, maintenance, and removal of temporary sanitary facilities.

2.5 SOLID WASTE

- A. CONTRACTOR shall furnish adequate sanitary holding containers. The local health department may inspect the Site to insure adequate facilities are available for the sanitary holding of garbage and other waste organic materials to which rodents and insects may have access.

2.6 JOB TRAILER

- A. CONTRACTOR shall furnish a job trailer at the Site when any of the following conditions exist prior to, or at the time of, the Notice to Proceed:
 - 1. The Contract Time exceeds 45 days;
 - 2. The awarded Contract Price exceeds \$350,000.00; or
 - 3. The Notice to Proceed is given after September 1.
- B. If the Work includes more than one Site, the location of the job trailer will be decided at the Pre-Construction Conference.

2.7 TELEPHONE

- A. CONTRACTOR shall have a fully charged cellular phone on the Site at all times during the duration of the Work.

PART 3 - EXECUTION

3.1 GENERAL

- A. CONTRACTOR shall maintain, operate, modify, and extend temporary facilities as progress on the Work requires. CONTRACTOR shall make all arrangements to insure continuous services.
- B. The job sign shall be maintained, with all information contained thereon kept current, throughout the duration of the Work.

3.2 REMOVAL

- A. CONTRACTOR shall completely remove all temporary materials, facilities and equipment when no they are no longer required for the Work. The job sign shall not be removed until all Work has been completed unless otherwise approved by the City.
 - 1. CONTRACTOR shall clean, repair and restore any damage caused by temporary installations and use of the temporary facilities.
 - 2. CONTRACTOR shall disinfect all premises or other areas occupied by temporary sanitary facilities.

- B. CONTRACTOR shall restore existing facilities used for temporary services as directed by the PROJECT REPRESENTATIVE or to their original condition.

END OF SECTION 01510

SECTION 01568 – ENVIRONMENTAL POLLUTION CONTROL

PART 1 – GENERAL

1.1 PREVENTION OF ENVIRONMENTAL POLLUTION AND PRESERVATION OF PUBLIC NATURAL RESOURCES

A. During the life of the Agreement the CONTRACTOR shall comply with all Federal, State and local Laws and Regulations pertaining to the prevention of environmental pollution and the preservation of public natural resources. Pursuant to RCW 39.04.120 (Ch. 62, Sec 1, Laws of 1973, 1st Ex. Session) such provisions as are reasonably obtainable are set forth below. Further, if the CONTRACTOR must undertake additional work not contemplated by the Contract Documents, due to the enactment of new or the amendment of existing Laws and Regulations, occurring after the submission of the Bid, the CITY will issue a Change Order setting forth the additional Work that must be undertaken, which shall not invalidate the Agreement. Such additional Work shall be considered extra work and will be compensated as such.

1. Oil and Chemical Storage and Handling: Handling and storage of oil and chemicals shall not take place adjacent to waterways. The storage shall be made in dike tanks and barrels with drip pans provided under the dispensing area. Shut-off and lock valves shall be provided on tanks. Shut-off nozzles shall be provided on hoses. Oil and chemicals shall be dispensed only during daylight hours unless the dispensing area is properly lighted. Disposal of waste shall not be allowed on oil and chemical spills. Fencing shall be provided around oil storage. Locks shall be provided on valves, pumps, and tanks.
2. Sewage: If a sanitary sewer line is encountered and repair or relocation work is required, the CONTRACTOR shall provide blocking and sealing of the sanitary sewer line. Sanitary sewer flow shall be pumped out, collected, and hauled by tank truck or pumped directly to a sanitary system manhole for discharge. The existing sewers shall be maintained by the CONTRACTOR without interruption of service by the use of temporary sewer bypasses. In addition, the excavated materials adjacent to and around a rupture of a sanitary sewer line shall be removed from the Site and deposited into refuse trucks for haul to a sanitary fill site. Equipment and tools in contact with the above materials shall be washed by pressure water lines and the attendant wash water discharged into a sanitary sewer line for transmission to a sewage treatment plant.

In the event of a sanitary sewage spill, notification shall be made to: Seattle-King County Department of Public Health, 206-296-4632.

1.2 AIR QUALITY

- A. The CONTRACTOR shall not cause or allow the discharge of particulate matter, the emission of any air contaminants or odor bearing gases in excess of the limits specified under Regulation I of the Puget Sound Air Pollution Control Agency, Article 9 - Emission Standards.
- B. The Contractor shall maintain air quality within the National Emission Standards for Hazardous Air Pollutants. Air pollutants being defined as that to which no ambient air quality standard is applicable and which in the judgment of the Administrator of the Environmental Protection Agency Clean Air Act may cause, or contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.

1.3 NOISE POLLUTION

- A. The CONTRACTOR shall take all reasonable measures for the suppression of noise resulting from work operations. Mobile engine driven cranes, loaders and similar material handling equipment; engines used in stationary service for standby power; and air compressors for high and low pressure service shall be equipped with exhaust and air intake silencers designed for the maximum degree of silencing. The type of silencer required is that for use in critical noise problem locations such as high density residential, hotel, and hospital areas.
- B. The CONTRACTOR shall conduct performance of the Work consistent with the applicable noise control levels set forth in King County Ordinance No. 3139.

1.4. LIABILITY

- A. The CONTRACTOR shall be liable for the payment of all fines and penalties resulting from failure to comply with the Federal, State and local pollution control Laws and Regulations even though the PROJECT REPRESENTATIVE is on the Site at the time of the violation.
- B. Except as may be otherwise provided for in the Contract Documents, costs pertaining to the prevention of environmental pollution and the preservation of public natural resources shall be considered as incidental to the Work and such costs shall be included in the Bid prices for the various items of Work which comprise the Agreement.

1.5. ARCHAEOLOGICAL AND HISTORIC PRESERVATION

- A. "On the private and public lands of this State, it shall be unlawful for any person, firm, corporation or any individual to knowingly alter, dig into or excavate by use of any mechanical, hydraulic, or other means, or to damage, deface or destroy any historic or prehistoric archaeological resource or site . . . without having obtained written permission from the preservation officer for such activities on public property . . ." (RCW 27.53.060)
- B. It shall be the responsibility of the CONTRACTOR to notify the PROJECT REPRESENTATIVE if any artifacts, skeletal remains or other archaeological resources (as defined under RCW 27.53.040) are unearthed during excavation or otherwise discovered on the construction site. If ordered by the PROJECT REPRESENTATIVE, the CONTRACTOR shall immediately suspend any construction activity which, in the opinion of the PROJECT REPRESENTATIVE, would be in violation of RCW 27.53. Suspension of the Work shall remain in effect until the PROJECT REPRESENTATIVE has obtained permission to proceed from the State Historic Preservation Officer.

1.6. TEMPORARY WATER POLLUTION/EROSION CONTROL

- A. Temporary water pollution/erosion control Work shall consist of temporary measures which may be indicated in the Contract Documents, proposed by the CONTRACTOR and approved by the PROJECT REPRESENTATIVE, or ordered by the PROJECT REPRESENTATIVE during performance of the Work. This temporary Work is intended to provide prevention, control, and abatement of water pollution/erosion within the limits of the Site, and to minimize damage to the Work, adjacent property, streams, and other bodies of water.
- B. The CONTRACTOR shall coordinate temporary water pollution/erosion control Work with the permanent drainage and erosion control Work that may be specified in the Contract Documents to the extent that effective and continuous water pollution/erosion control is maintained during performance of the Work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END SECTION 01568

ENVIRONMENTAL POLLUTION CONTROL
01568-3

SECTION 01600 - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract Documents, including General Conditions and Supplementary Conditions (if any) and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the CONTRACTOR's selection of products for use in the Project.
- B. Standards: Refer to Section "Definitions and Standards" for applicability of industry standards to products specified.
- C. Administrative procedures for handling requests for substitutions made after award of the Contract are included under Section "Substitutions and Product Options."

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well recognized meanings in the construction industry.
 - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - a. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 - b. "Foreign Products", as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside of the United States and its possessions, or produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions.
 - 2. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 - 3. "Equipment", is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.4 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.

1. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete Project requirements in a timely manner, consult with the PROJECT REPRESENTATIVE for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.
 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
 3. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
 4. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.

5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
 1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
 1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
 2. Semi-proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
 - a. Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
 3. Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the CONTRACTOR to use of these products only, the CONTRACTOR may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
 4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.

5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
 - a. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.
6. Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
7. Visual Matching: Where Specifications require matching an established Sample, the PROJECT REPRESENTATIVE's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
8. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The PROJECT REPRESENTATIVE will select the color, pattern and texture from the product line selected.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
 1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 01600

SECTION 01630 – SUBSTITUTIONS AND PRODUCT OPTIONS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. CONTRACTOR shall furnish and install all products, materials and equipment specified by the Contract Documents. Except as set forth below, substitutions will be considered only after the Award of Contract. The PROJECT REPRESENTATIVE will review the substitution requests as stated in this Section.

1.2 RELATED SECTIONS

- A. Coordinate related requirements specified in other parts of the Contract Documents.

1.3 PRODUCTS

- A. Where specified only by reference standards, select any product meeting the standards, by any Manufacturer.
- B. Where specified by naming one or more products, but indicating "or approved" after specified listing, submit any request for another product substitution on attached form.

1.4 SUBSTITUTIONS

- A. As required, submit written substitution requests (on form provided) to the PROJECT REPRESENTATIVE as follows:
 - 1. Submit two (2) copies of the Substitution Request Form for each product substitution being proposed.
 - 2. Prior to opening of the Bids, all substitution requests must be received not less than ten (10) calendar days prior to the date set for opening of the bids. If an Addendum to the Contract Documents approving the substitution is not issued at least five (5) calendar days prior to the date set for opening of the Bids, Bidders should assume that the substitution is rejected for purposes of preparing their Bids. After Bid Opening and award of the contract, substitution requests shall be received by the PROJECT REPRESENTATIVE no less than ten (10) calendar days prior to the Pre-Construction Conference. After that time, any requests for substitution should be submitted pursuant to the Change Proposal process (see Section 01035).
- B. Indicate one or more of the following reasons for request:
 - 1. Substitution is required for compliance with final interpretation of applicable requirements of Laws and Regulations, or insurance regulations.
 - 2. Specified product is unavailable through no fault of Contractor/Subcontractor.
 - 3. Subsequent information discloses specified product unable to perform properly or fit designated space.
 - 4. Supplier or fabricator refuses to certify or guarantee performance of specified product, as required.

5. Substitution saves substantial cost, time or other considerations. Show accurate cost data on proposed substitution in comparison with product or method specified or backup documentation from the Supplier pertaining to delivery times.
- C. In making request for substitution, Supplier and CONTRACTOR represent that:
1. He/she has personally investigated the proposed product, and in his/her opinion, it is equal or superior in all respects to that specified.
 2. He/she will coordinate installation of accepted substitution and guarantees to complete it in all respects. He/she has outlined any changes required in accordance with the form.
 3. He/she will provide an equal or greater guarantee for the substitution as for specified product.
 4. He/she waives all claims for additional costs related to the substitution which consequently become apparent.
 5. The cost data is complete and includes all related costs under his/her Agreement, but excludes costs under separate agreements (show impact on attached form).
- D. Substitutions will not be considered if:
1. They are indicated or implied on Shop Drawings or other project data submittals, without proper notice shown on the attached form; or
 2. Approval will require substantial revisions to the Contract Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01630

SUBSTITUTION REQUEST FORM FOLLOWS

SUBSTITUTIONS AND PRODUCT OPTIONS
01630-2

SUBSTITUTION REQUEST FORM

Attention: _____
Project Representative
City of Duvall Department of Public Works
PO Box 1300
Duvall, WA 98019

Project Name:
Contract Number:
Contractor:

We hereby submit for consideration, the following product instead of specified item for the above project:

SECTION	PARAGRAPH	SPECIFIED ITEM
_____	_____	_____

Proposed Substitution: _____

Attach complete dimensional information and technical data, including laboratory tests, if applicable.

Include complete information on changes to Drawings and Specifications which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiating data to prove equal quality, performance, and appearance to that specified. Clearly mark Manufacturer's literature to indicate equality in performance. Indicate differences in quality of materials and construction.

Fill in blanks below:

Does the substitution affect dimensions shown on Drawings?

YES _____ NO _____ If YES, clearly indicate changes: _____

_____.

SECTION 01700 – CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. CONTRACTOR shall comply with all requirements stated in the Contract Documents for administrative procedures in closing out the Work.

1.2 SUBSTANTIAL COMPLETION

- A. See Section 00700, Article 1 – Definitions and Section 00700, Article 13 – Paragraph 13.6 – Substantial Completion.

1.3 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. General: In addition to the requirements set forth by the referenced provisions in Section 1.2 above, prior to requesting the PROJECT REPRESENTATIVE's inspection for a Notice of Completion, CONTRACTOR shall complete the following and list known exceptions in the request:
 - 1. In the Application for Payment request coincident with or first following the date claimed, show either 100% completion for portion of Work claimed as "Substantially Complete," or list incomplete items, value of incompleteness, and reasons for being incomplete.
 - 2. Include supporting documentation for completion as indicated in the Contract Documents.
 - 3. Obtain and submit releases enabling the CITY's full and unrestricted use of the Work and access to services and utilities, including (where required) occupancy permits, operating certificates, and similar releases.
 - 4. Complete start-up testing of systems, and instruction of the City's operating/maintenance personnel.
 - 5. Notify the PROJECT REPRESENTATIVE in writing that the Work is substantially complete in accordance with Section 00700, Article 13, Paragraph 13.6.
- B. Inspection Procedures: Upon receipt of CONTRACTOR's written notification, the PROJECT REPRESENTATIVE will proceed with an inspection of the Work with the CONTRACTOR. Following the initial inspection, the PROJECT REPRESENTATIVE will either prepare a Notice of Completion, or advise CONTRACTOR of Work which must be performed prior to issuance of the notice. Thereafter, the PROJECT REPRESENTATIVE will repeat the inspection process when requested to do so by the CONTRACTOR and the PROJECT REPRESENTATIVE has been assured by CONTRACTOR that the Work has been substantially completed. Results of the completed inspection will form an initial "punch list" for full completion of the Work. If necessary, the procedure will be repeated. When the PROJECT REPRESENTATIVE finds the Work acceptable under the Contract Documents, the PROJECT REPRESENTATIVE will request the Contractor to make closeout submittals.

1.4 RE-INSPECTION FEES

- A. Should the PROJECT REPRESENTATIVE perform a re-inspection due to failure of the Work to comply with completion status claimed, CONTRACTOR shall compensate the CITY for each additional inspection at the PROJECT REPRESENTATIVE's standard hourly billing rate.

1.5 PREREQUISITES FOR FINAL COMPLETION DATE

- A. Show evidence of compliance with requirements of the following:
 - 1. Permits, as required by regulatory agencies.
 - 2. Make final changeover of locks and transmit keys to the PROJECT REPRESENTATIVE and advise the PROJECT REPRESENTATIVE of changeover in security provisions.
 - 3. Discontinuance (or changeover) and removal from the Site of temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.
- B. Upon completion, the PROJECT REPRESENTATIVE will notify the CITY in writing, with a copy to the CONTRACTOR, that the Work is fully complete, and the one (1) year maintenance/guaranty period will be initiated.

1.6 CLOSE OUT

- A. CONTRACTOR shall provide evidence of compliance with the following requirements:
 - 1. Project Record Documents have been submitted in accordance with the requirements of Section 01720.
 - 2. All Warranties and Bonds including special guarantees, workmanship and maintenance bonds, maintenance agreements, final certifications and similar documents have been submitted as required by the Contract Documents
 - 3. All operating and maintenance manuals have been submitted in accordance with the requirements of Section 01730.
- B. CONTRACTOR has completed the turf and irrigation maintenance period, or other warranty items, if required.

1.7 FINAL ADJUSTMENT OF ACCOUNTS

- A. CONTRACTOR shall submit a statement to the PROJECT REPRESENTATIVE showing an accounting of all changes to the awarded Contract Price.
- B. The statement shall reflect all adjustments to the awarded Contract Price, indicating the following:
 - 1. The original awarded Contract Price.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders

- b. Additives/Deductives
- c. Other adjustments: deductions of uncorrected Work
- 3. Final Contract Price, as adjusted
- 4. Previous payments
- 5. Total amount remaining due

1.8 FINAL APPLICATION FOR PAYMENT

- A. The CONTRACTOR shall submit a final Application for Payment in accordance with the procedures and requirements of the Contract Documents (see Section 00700, Article 13). Mark "FINAL" on the Application for Payment.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01700

CONTRACT CLOSEOUT
01700-3

SECTION 01720 – PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 USE AND PROTECTION

- A. CONTRACTOR shall not use record documents for construction purposes; shall protect them from deterioration and loss in a secure, fire-resistive location; and shall provide access to record documents for the PROJECT REPRESENTATIVE's reference during normal working hours.

1.2 RECORD DRAWINGS

- A. CONTRACTOR shall maintain a clean, undamaged set of blue or black line white prints of Drawings and Shop Drawings. CONTRACTOR shall mark the set to show the actual installation where the installation varies substantially from the Work as originally shown by the Contract Documents. CONTRACTOR shall mark whichever drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 MARKING OF PLANS AND SPECIFICATIONS

- A. CONTRACTOR shall mark a record set with red erasable pencil and use other colors to distinguish between variations in separate categories of the Work.
- B. CONTRACTOR shall mark any new information that was not shown on the Drawings or Shop Drawings as directed by the PROJECT REPRESENTATIVE.
- C. CONTRACTOR shall indicate locations of elements of the Work that were changed or new due to Change Orders. The elements shall be located with dimension lines measured in feet and inches.
- D. CONTRACTOR shall note related Change Order numbers where applicable.
- E. CONTRACTOR shall mark new information on the record set no less frequently than weekly in order to consistently maintain accurate record information. The PROJECT REPRESENTATIVE may deny Applications for Payment if the record drawings are not kept up to date.

3.2 ORGANIZATION

- A. CONTRACTOR shall organize record drawing sheets into manageable sets, bind them with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.

3.3 DELIVERY

- A. Prior to requesting the preliminary inspection by the PROJECT REPRESENTATIVE incident to declaring Substantial Completion, the CONTRACTOR shall draft in a clear and readable format

all corrections and revisions made to the Work on a complete set of the working drawings to show "as built" conditions. This final copy of record drawings shall be delivered to the PROJECT REPRESENTATIVE for review and approval.

- B. Prior to the final completion date, these working prints, updated clearly and legible to reflect deviations from the Contract Documents, shall be delivered to the PROJECT REPRESENTATIVE.

END OF SECTION 01720

PROJECT RECORD DOCUMENTS
01720-2

SECTION 01730 – OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 OPERATION AND MAINTENANCE MANUALS

- A. CONTRACTOR shall provide three copies of manuals containing all operating and maintenance data relevant to the Work. Organize operating and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual heavy duty 2-inch, 3-ring vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Provide neat, clean, legible copies of data, 8-1/2" x 11" size, provide drawings 11"x17" size, accordion folded for binding. Provide type written, plastic coated tabs for each section. Provide the information in the following format:
1. Imprint the front cover of the binder with the name of the Project, PROJECT REPRESENTATIVE, and CONTRACTOR.
 2. Imprint the spine of the binder with the name of the Project.
 3. Provide a "Project Team Page" with the names, addresses and phone numbers of the project manager, PROJECT REPRESENTATIVE, architect, engineer(s), landscape architect, general contractor, and major subcontractors.
 4. Provide a complete index listing major sections of the Contract Documents and clearly identifying categories of information in each section using C.S.I. format.
 5. Divide Sections into the following components:
 - a. Warranties: Provide copies of all warranties by Site, as applicable.
 - b. Preventative Maintenance Schedules: For each Site (if applicable) provide, in 12-Month calendar form, such preventative maintenance tasks as required to ensure the longest possible useful life of the improvements. Label "key tasks" throughout the calendar, referencing those tasks with complete and detailed descriptions of the work to be performed. Include any and all pertinent information as recommended and made available by the manufacturer or supplier of materials.
 6. Catalog Cuts: Provide copies of catalog cuts of all material submittals as required by the Contract Documents. Compile by specification section.

1.2 ADDITIONAL COPIES

- A. Preliminary O&M Data: Prior to requesting the preliminary inspection by the PROJECT REPRESENTATIVE incident to declaring Substantial Completion, the CONTRACTOR shall assemble a preliminary draft copy of the O&M data applicable to all mechanical, electrical and plumbing systems. This draft shall be available on-Site for reference by the PROJECT REPRESENTATIVE.
- B. Warranties: When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01730

OPERATING AND MAINTENANCE DATA
01730-2

SECTION 01740 – MAINTENANCE BOND AND GUARANTEE

PART 1 – GENERAL

1.1. MAINTENANCE BOND, GENERAL GUARANTEE AND WARRANTY

- A. Prior to the payment of the Final Application for Payment, the CONTRACTOR shall provide a one (1) year maintenance bond from the date of final completion of the Work in the amount of 20% of the total final Contract Price. All parts of the Work shall be guaranteed and bonded by the CONTRACTOR to remain in perfect working order and condition except where abused or neglected by the CITY (normal wear and tear excepted), and the CONTRACTOR shall repair or replace, at it's own expense, any Work, or material that may prove to be defective during the period of the guarantee. The Maintenance Bond should be provided at the time of submittal of the final Application for Payment.
- B. The form of the guarantee to be executed by the CONTRACTOR is attached to the end of this Section

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

- A. CONTRACTOR shall submit the guarantee at the time of submittal of CONTRACTOR's final Application for Payment.

END OF SECTION 01740

SAMPLE OF MAINTENANCE BOND AND GUARANTEE FOLLOW

MAINTENANCE BOND AND GUARANTEE
01740-1

MAINTENANCE BOND

Bond No. _____

WHEREAS, _____, hereinafter referred to as "Principal", has constructed and installed certain improvements in connection with a project known as **City of Duvall 275th Ave. NE Complete Streets**, within the City of Duvall, hereinafter referred to as "City" pursuant to an Agreement between the Principal and the City dated _____; and,

WHEREAS, in order to provide security for the obligation of the Principal to repair or replace any improvement(s) which prove(s) defective within one (1) year(s) of final completion of the improvement(s) by the Principal and to enable the City to release the performance bond provided in connection with said improvements, this bond has been secured and is hereby submitted to the City.

NOW THEREFORE, the undersigned Principal and _____, a corporation authorized to transact surety business in the State of Washington, hereinafter referred to as "Surety", agrees and bind themselves, their heirs, executors, administrators and assigns, unto the City in the sum of _____ Dollars (\$ _____), lawful money of the United States, according to the following terms and conditions:

1. The Principal and Surety agree that in the event any of the improvements installed by the Principal or Surety pursuant to the Contract Documents for the above referenced project fail to remain free from defects in materials, workmanship or installation, or in the case of landscaping, fail to survive, for a period of one (1) year from the date of final completion of the project by the Principal, then the Principal and/or Surety shall, within twenty (20) days demand of the City make a written commitment to the City that it will either:

- A. remedy the default itself with reasonable diligence pursuant to a time schedule acceptable to the City, or
- B. tender to the City within an additional ten (10) days the amount necessary, as determined by the City, for the City to remedy the default, up to the total bond amount.

The Surety shall then fulfill its obligations under this bond, according to the option it as selected.

If the Surety elects option "B", then upon completion of the remedy the City shall notify the Surety of the actual costs of the remedy. The City shall return, without interest, any overpayment made by the Surety, and the Surety shall pay to the City any actual costs which exceed the City's estimate, limited to the bond amount.

2. If the Principal fails to make repairs or provide maintenance within the time period requested by the City, the City's employees and agents are hereby authorized to enter onto said property and to perform such work. This provision shall not be construed as creating any obligation on the party of the City of its representatives to perform the work.

3. In the event any lawsuit is instituted to enforce the terms of this bond or to determine the rights of any party hereunder, the prevailing party in such litigation shall be entitled to recover from the losing party its costs, including reasonable attorneys' fees, incurred as a result of such lawsuit.

4. This bond shall remain in full force and effect until the obligations secured hereby have been fully performed and until released in writing by the City at the request of the Surety or the Principal.

DATED this _____ day of _____, 20__.

Principal

By _____

Dated _____

[Print Name]

Its _____

Countersigned:

Surety

By _____

Dated _____

[Print Name]

Its _____

[Power of Attorney Must be Attached]

ACCEPTED BY:

CITY OF DUVALL

By _____

Dated _____

[Print Name]

Its _____

GUARANTEE FORM

CITY OF DUVALL
Department of Public Works
P.O. Box 1300
Duvall, WA 98019

Subject: City of Duvall 275th Ave. NE Complete Streets

To Whom It May Concern:

The undersigned Contractor hereby guarantees and warrants the complete construction and installation of all work, systems and apparatus done and performed in connection with the above referenced Project to be free from defects in materials and workmanship for a period of one (1) year from the date of final completion of the entire Project. The undersigned agrees to remedy and correct at its own expense any such defects appearing during that period of time due to unsatisfactory materials or workmanship, and will pay for any and all damage which may occur to other aspects of the work or the Project which may result from the occurrence of such defects or the correction of the same. It is understood that partial or entire use of the Project by the City of Duvall shall not constitute final completion of the Project.

This Guarantee and its acceptance by the City of Duvall shall in no way be deemed a waiver by the City of Duvall of any rights or remedies (or time limits in which to enforce said rights or remedies) it may have against the undersigned for defective workmanship or defective materials under the laws of this State pertaining to acts of negligence.

This Guarantee shall not be interpreted as holding the undersigned responsible for any deterioration of the Work or the Project due to abnormal use or abuse of the Work (normal wear and tear excepted) by the City of Duvall.

Contractor Signature

Date

Print - Company Name - Title

DIVISION 2 – TECHNICAL SPECIFICATIONS

SECTION 311000 - SITE PREPARATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Site demolition:
 - a. Selective site demolition: Demolition of pavements, curbs and gutters, drainage structures, and utilities, and backfilling voids resulting from removals or demolition.
2. Site Clearing:
 - a. Protection of existing trees
 - b. Removal of Trees and other Vegetation
 - c. Topsoil Stripping and Stockpiling
 - d. Clearing and Grubbing
 - e. Removing Above-Grade Improvements, as indicated on Drawings
3. Temporary Erosion and Sediment Control
 - a. NPDES Construction Stormwater Permit
 - b. Contractors TESC Plan

B. Related Sections:

1. Section 312000 – Earthwork
2. Section 329300 – Planting

1.2 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Conform to applicable local code for demolition of structures, safety of adjacent structures, dust control and runoff control.
2. Obtain required permits and licenses from authorities.
3. Notify affected utility companies before starting work and comply with their requirements.
4. Do not close or obstruct roadways, sidewalks or hydrants without permits.

B. Contractor shall provide methods to ensure pollution control during the demolition period.

C. Arborist Qualifications: An arborist certified by the International Society of Arboriculture or licensed in the jurisdiction where Project is located.

D. Tree Pruning Standards: Comply with ANSI A300, "Trees, Shrubs, and Other Woody Plant Maintenance - Standard Practices," unless more stringent requirements are indicated.

E. The Contractor shall meet the requirements of the City of Duvall and King County Surface Water Design Manual, Project Manual and TESC Plan.

1.3 PROJECT CONDITIONS

- A. Existing Conditions:
1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner in so far as practicable.
 - a. Start of work is acceptance of conditions.
 2. Notify Owner's Representative of variations to conditions or discrepancies in actual site conditions prior to start of site preparation Work.
- B. Traffic: Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction.
- C. Existing Services:
1. General: Indicated locations are approximate; determine exact locations before commencing Work.
 2. Arrange and pay for disconnecting, removing, capping, and plugging utility services. Notify affected utility companies in advance and obtain permits as necessary before starting this Work.
 3. Place markers to indicated location of disconnected services. Identify service lines and capping locations on Project Record Documents.
- D. Protection of Existing Improvements: Provide protections necessary to prevent damage to existing improvements indicated to remain in place.
1. Restore damaged improvements to their original condition, as acceptable to property Owners.
 2. Provide protection for safe passage of persons around area of site preparation. Take precautions and conduct operations to prevent injury to adjacent buildings, structures, other facilities, and persons.
 3. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement or collapse of structures to be demolished and adjacent facilities to remain.
- E. Protection of Existing Trees and Vegetation: Protect tops, trunks, and roots of existing trees and other vegetation to remain in place against unnecessary cutting, breaking or skinning of roots, skinning or bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary guards to protect trees and vegetation to be left standing.
1. Install Temporary fencing located as indicated or outside the drip line of trees to protect remaining vegetation from construction damage. Utilize plastic snow fence materials as approved by Owner's Representative.
 2. Provide protection for roots over 1-1/2 inch diameter that are cut during construction operations. Coat cut faces with an emulsified asphalt, or other acceptable coating, formulated for use on damaged plant tissues. Temporarily cover exposed roots with wet burlap to prevent roots from drying out. Cover with earth as soon as possible.
 3. Repair or replace trees and vegetation to remain, which are damaged by construction operations, in a manner acceptable to Owner's Representative. Employ a licensed Arborist to repair damages to trees and shrubs.
- F. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated or directed.

- G. TESC Plan: The Contractor shall modify, adapt, and maintain the furnished site-specific TESC plan that describes the proposed layout of temporary erosion and sediment controls and the materials to be used. The plan shall include the manufacturer's catalog cut sheets or a sample of materials to be used. The plan should identify the types of work and Best Management Practices for the life of the project.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

- A. Specified in Section 312000 – Earthwork

2.2 TESC MATERIALS

- A. General: Meet specifications for TESC materials as outlined in the City of Duvall Standard Plan and King County Surface Water Design Manual including but not limited to the following TESC measures:
 1. Stabilized Construction Entrance
 2. Mulching
 3. Nets and blankets
 4. Sand bags
 5. Silt Fence (silt fence shall not be combined with work zone fence).
 6. Triangular Silt Dike
 7. Storm Drain Inlet Protection
 8. Storm drain plugs (leak free).
 9. Site-wide plastic sheet, sandbags and anchors.
 - a. 20 mil string reinforced multi-layer plastic sheeting for stockpile base liners.
 - b. 10 mil string reinforced multi-layer plastic sheeting (all other applications). Thinner/unreinforced plastic sheeting shall not be used.
 10. Straw wattles
 11. Other applicable erosion and sediment control materials determined by BMPs and dynamics of the site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Provide, erect, and maintain erosion control devices, temporary barriers and security devices at locations indicated as specified in this Section and as shown on Drawings.
 1. TESC measures shall be installed as stringent as or more stringent than indicated in the Contractor's TESC plan and shall be substantially upgraded by the Contractor following any observed deficiencies. Downgrading installed TESC measures shall only occur with concurrence of Ecology Water Quality.
- B. Protect existing landscaping materials, appurtenances and structures and other features indicated to remain.

- C. Prevent movement or settlement of adjacent structures: Provide bracing and shoring.
- D. Mark location of utilities. Protect and maintain in safe and operable condition the utilities to remain. Prevent interruption of existing utility service to occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities as acceptable to governing authorities and the Owner.

3.2 INSTALLATION

- A. Install and maintain TESC measures per the City of Duvall Standard Plans and King County Surface Water Design Manual.

3.3 SITE DEMOLITION

- A. General:
 - 1. Document existing conditions of adjacent areas prior to start of demolition.
 - 2. Conduct demolition to minimize interference with adjacent structures or pavements.
 - 3. Cease operations immediately if adjacent structures appear to be in danger. Notify authority having jurisdiction. Do not resume operations until directed.
 - 4. Conduct operations with minimum interference to public or private access. Maintain access and egress at all times.
 - 5. Sprinkle Work with water to minimize dust. Provide hoses and water connections for this purpose.
 - 6. Comply with governing regulations pertaining to environmental protection.
 - 7. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing prior to start of work.
- B. Selective Site Demolition
 - 1. Disconnect or remove designated utilities within demolition areas.
 - 2. Removal of abandoned underground piping or conduit interfering with construction is included under this Section.
- C. Pollution Controls:
 - 1. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
 - a. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - a. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

3.4 SITE CLEARING AND GRUBBING

- A. General: Remove trees, shrubs, grass and other vegetation, improvements, or obstructions as required to permit installation of new construction. Remove similar items elsewhere on site or

premises as specifically indicated. "Removal" includes digging out and off-site disposing of stumps and roots.

1. 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.
2. Completely remove stumps, roots, and other debris protruding through ground surface.
3. Use only hand methods for grubbing inside drip line of trees indicated to remain.
4. All roots 3 inches and greater in diameter shall be removed within 5'-0" of all existing or new site improvements.

3.5 STRIPPING OF TOPSOIL

- A. Topsoil: Topsoil is defined as friable surface soil found in a depth of not less than 4 inches. Satisfactory topsoil is reasonably free of subsoil, clay lumps, stones, and other objects over 2 inches in diameter, or over 3' in length, and without weeds, roots, and other objectionable material.
1. Strip topsoil to whatever depths encountered in a manner to prevent intermingling with underlying subsoil or other objectionable material.
 - a. Remove heavy growths of grass from areas before stripping.
 - b. Where existing trees are indicated to remain, leave existing topsoil in place within drip lines to prevent damage to root system.

3.6 BACKFILLING

- A. Completely fill below grade areas and voids resulting from demolition or removal of structures using approved select fill materials consisting of stone, gravel, and sand free from debris, trash, frozen materials, roots, and other organic matter.
1. Fill depressions caused by clearing and grubbing operations with acceptable fill material to subgrade elevation.
 2. Ensure that areas to be filled are free of standing water, frost, frozen, or unsuitable material, trash, and debris prior to fill placement.
 3. Place fill materials in horizontal layers and compact each layer at optimum moisture content of fill material to proposed density as specified in Section 312000 - Earthwork.
 4. Grade surface to match adjacent grades and to provide flow of surface drainage after fill placement and compaction.

3.7 EXCAVATION AROUND EXISTING TREES

- A. Excavation Around Trees to Remain:
1. Where trenching for utilities is required within drip line, hand dig under or around roots. Do not cut lateral roots or tap roots. Cut smaller roots interfering with new construction.
 2. Where excavating for new construction is required within drip line of trees, hand excavate to minimize damage to root systems and provide sheeting at excavations if required. Use narrow tine spading forks and comb soil to expose roots. Relocate roots in backfill areas. If large, main lateral roots are encountered, exposed beyond excavation limits, bend and relocate without breaking. If encountered immediately adjacent to location of new construction and relocation is not practical, cut roots approximately 3 inches back from new construction.

3. Allow no exposed roots to dry out before permanent backfill is placed; provide temporary earth cover, or pack with peat moss and wrap with burlap. Water and maintain in moist condition and temporarily support and protect from damage until permanently relocated and covered with backfill.
 4. Prune branches in accordance with standard horticultural practice to balance loss to root system caused by damage or cutting of root system. Engage qualified arborist to prune branches.
- B. Grading and Filling Around Trees Near Clearing Limits:
1. Existing Grades: Maintain existing grading within drip line of trees, unless otherwise indicated on the Drawings.
 2. Lowering Grades: Where existing grade is above new finish grade shown around trees, carefully hand excavate within drip line to new finish grade. Cut roots exposed by excavation or provide permanent protection as recommended by arborist.
 3. Raising Grades:
 - a. Minor Fill: Where existing grade is 6 inches or less below elevation of finish grade shown, use a topsoil fill mixture. Place a single layer and do not compact; hand grade to required finish elevations.
 - b. Moderate Fills: Where existing grade is more than 6 inches but less than 12 inches below finish grade elevation, place layer of drainage fill on existing grade elevation prior to placing topsoil. Carefully place against trunk of tree approximately 2 inches above finish grade elevation and extend not less than 18 inches from tree trunk on all sides. For balance of area within drip line perimeter, place drainage fill to an elevation of 6 inches below grade and complete fill with a layer of topsoil to finish grade elevation. Do not compact stone or gravel or topsoil layers, and grade to required elevations.
- C. Repair for Damaged Trees:
1. Engage a qualified arborist to perform tree repair work.
 2. Make repairs promptly after damage occurs to prevent progressive deterioration.
 3. Remove dead and damaged trees which are determined by arborist to be incapable of restoration to normal growth pattern.

3.8 REMOVAL

- A. Remove debris, rock, extracted plant life, paving, curbs, and other structures indicated on Drawings and as specified.
- B. Disposal of Demolished Materials:
1. Remove from site debris, rubbish, and other materials resulting from demolition operations.
 2. No burning of any material, debris, cleared material, or trash on-site or off-site will be allowed, except when allowed by the appropriate governing authority and the Owner. If allowed as stated above, burning shall be performed in manner prescribed by governing authority. Attend burning materials until fires have burned out or have been extinguished.
 3. Transport cleared and demolished materials with appropriate vehicles and dispose off-site to areas which are approved for disposal by governing authorities and appropriate property Owners.

- C. Remove grass, trees, plant life, stumps and all other construction debris from site to a dump site that is suitable for handling such material according to state laws and regulations.

3.9 RESTORATION AND CLEAN UP

- A. When site is stabilized and “uniform stand of grass” is established, remove TESC measures and complete final restoration of impacts from removal of TESC measures.
- B. The Contractor shall remove and dispose all temporary erosion and sediment control materials and fully restore the site

END OF SECTION 311000

SECTION 312000 - EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavation and grading to levels and elevations indicated on the Drawings.
2. Preparation of subgrade for walks and pavements.
3. On site and imported fill as necessary to bring areas to elevations indicated on Drawings.

B. Related Sections:

1. Section 311000 – Site Preparation
2. Section 321313 – Concrete Pavement
3. Section 329300 – Planting
4. Final grading, together with placement and preparation of topsoil for lawns and planting, is specified in Section 329113.

1.2 DEFINITIONS

A. Excavation: Removal of material encountered above subgrade elevations.

1. Additional Excavation: Excavation below subgrade elevations as directed by Landscape Architect. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Bulk Excavation: Excavations more than 10 feet in width and pits more than 30 feet in either length or width.

B. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Owner's Representative. Unauthorized excavation, as well as remedial work directed by Owner's Representative, shall be at Contractor's expense.

1. Under footings, foundation bases, or retaining walls, fill unauthorized excavation by extending indicated bottom elevation of footing or base to excavation bottom, without altering required top elevation with engineered fill. Lean concrete fill may be used to bring elevations to proper position, when acceptable to Owner.
2. In locations other than those above, backfill and compact unauthorized excavations as specified for authorized excavations of same classifications, unless otherwise directed by Owner's Representative.

C. Subbase Course: Layer placed between the subgrade and base course for asphalt paving, or layer placed between the subgrade and a concrete pavement or walk.

D. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

E. Structures: Buildings, foundations, slabs, tanks, curbs, or other man-made stationary features occurring above or below ground surface.

- F. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.3 SUBMITTALS

- A. Product Data: Submit "Letter of Conformance" in accordance with General Requirements and with the following supporting data:
 - 1. Manufacturer's Installation Instructions: Indicate special procedures required to install products specified.

1.4 QUALITY ASSURANCE

- A. Codes and Standards: Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.
- B. Survey: This Contractor, under the direct supervision of a Registered Professional Engineer or Professional Surveyor provided by the Contractor, as approved by the Owner's Representative, shall be responsible for verifying the property lines, restrictions, bench marks, location surveys and setting of grade control as required to complete the site work.

1.5 EXISTING UTILITIES

- A. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations.
- B. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility Owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility Owner.
 - 1. Existing sub-surface structures, including old sewers, abandoned drains, etc., which may appear within the limits of excavation, shall be removed if required by the City, but such removals will not be paid for separately, being included in the price paid for excavation or other items including such excavation.
 - 2. In case the uncovering or interference of sub-surface structures necessitates a change in the alignment or grade of the proposed work, the Contractor shall give written notice of such condition, and shall cease work at such points until ordered to proceed.
 - 3. In case any change of grade or alignment shall serve to delay the work, the time allowed for completion of the contract will be extended by the same length of time to which the delay shall have operated, the decisions of the Owner's Representative, being final.
- C. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, during occupied hours, except when permitted in writing by Landscape Architect and then only after acceptable temporary utility services have been provided.
 - 1. Provide minimum of 48-hour notice to Owner and Public Service Corporations who may be affected, and receive written notice to proceed before interrupting any utility.

1.6 USE OF EXPLOSIVES

- A. The use of explosives is not permitted.

1.7 PROTECTION OF PERSONS AND PROPERTY

- A. Barricade open excavations occurring as part of this.
- B. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- C. Perform excavation by hand within dripline of large trees to remain. Protect root systems from damage or dry-out to the greatest extent possible. Maintain moist condition for root system and cover exposed roots with moistened burlap.
- D. Protect trees, shrubs, lawns, and other features remaining as portions of final landscape.
- E. Use all means necessary to protect the building, neighboring property, and materials that are to be salvaged. This protection shall be given to public walks, streets and utilities. Any damage to same shall be repaired by Contractor at his expense.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory soil materials are defined as those complying with ASTM D-2487 soil classification groups GW, GP, GM, SM, SW, and SP.
- B. Unsatisfactory soil materials are defined as those complying with ASTM D-2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT, or a combination of these symbols.

2.2 FILL MATERIALS

- A. Fills shall be constructed from approved materials found off the site. The Contractor shall include the cost of all required fill in their proposal.
- B. All fill material, unless noted otherwise herein, shall be a clean fill material free of debris and organic matter and shall have a plasticity index of less than 20. Material shall be free of rock, stone, or broken concrete larger than 4 inches in the largest dimension.

2.3 GRANULAR FILL MATERIAL

- A. Granular fill materials shall be bank run gravel or sand, or processed stone which meets the gradation criteria of the Unit Soil Classification System for Well Graded Gravel (GW) or sand (SW or SP). Maximum particle size shall pass a 2-inch sieve.

- B. The material shall contain less than 15 percent silt passing the No. 200 sieve and shall be a maximum plasticity index of six (6). All granular fill material is subject to the continuing inspection and acceptance of the Owner Representative and Landscape Architect.

2.4 DRAINAGE FILL:

- A. Washed, evenly graded mixture of crushed stone, or uncrushed or crushed gravel; ASTM D 448; with 100 percent passing a 1-1/2" sieve and not more than 5 percent passing a No. 4. sieve.

2.5 BACKFILL AND SUBBASE FILL MATERIAL

- A. Material for backfilling foundation excavations, walls, pipes, conduit trenches, and any other excavations shall be imported granular material as specified in Article 2.03.

2.6 TOPSOIL

- A. See 329113 – Topsoil Placement

2.7 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, 6" wide and 4 mils 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. Drainage Fabric: Nonwoven geotextile, specifically manufactured as a drainage geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:
 - 1. Grab Tensile Strength: 110 lbf; ASTM D 4632
 - 2. Tear Strength: 40 lbf; ASTM D 4533
 - 3. Puncture Resistance: 50 lbf; ASTM D 4833
 - 4. Water Flow Rate: 150 gpm per sf.; ASTM D 4491
 - 5. Apparent Opening Size: No. 50; ASTM D 4751

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prior to construction, all existing sod, topsoil, and vegetation along with any soft/loose deposits that become obvious thereafter shall be completely removed from within the proposed building and pavement limits, and areas to be cut or receive fill.

- B. Refer to Section 311000 – Site Preparation for protection, excavation, filling and grading around existing trees.
- C. Any fill or backfill required within building and pavement limits shall be select material as approved by a qualified Engineer. For all filling operations, the following should be observed:
 - 1. Prior to use, the approved fill material shall be tested as outlined in ASTM D-698 to determine the maximum dry density and optimum moisture content for silty or cohesive soils, or ASTM D-4253 and D-4254 for clean granular soils. For each change in borrow material, additional tests will be required.
 - 2. For fill or backfill used for support of pavement or exterior slabs-on-grade, the fill material shall be placed on the approved sub-grade in maximum 12” deep loose measured controlled lifts with each lift compacted to 95% maximum dry density of the Standard Proctor per ASTM D-698 at a moisture content optimum for cohesive or silty borrow. Controlled lifts of granular material should be compacted to 95% relative density per ASTM D-4254.
 - 3. Soil in lawn areas should be compacted to 85% maximum dry density.
 - 4. All filling operations requiring compaction shall be observed by the Contractor’s qualified soils technician with field density tests made, to assure compaction to Specification.
- D. Cut site soils, excepting topsoil, may be used as compacted fill borrow. However, moisture control of soils is critical in attaining the required compaction.

3.2 EXCAVATION:

- A. Remove and dispose of material encountered to obtain required subgrade elevations, including pavement, obstructions visible on ground surface, underground structures, and utilities indicated to be removed.
- B. All basements and other miscellaneous buried structural units, including concrete slabs, walls, foundations, and abandoned utilities shall be completely removed to a depth of 3.0 feet below planned subgrade elevation.
- C. All slabs encountered, but which are located below the above cited minimum depths, shall be sufficiently broken throughout the slab thickness to permit any water traveling downward to pass through the slab and into the underlying soils.
- D. All resulting debris should be wasted from the site.
- E. Excavate for trenches to depth indicated or required and to establish indicated flow lines or invert elevations. Maintain uniform width required for particular item to be installed, including width to provide ample working room. Provide 6 to 9 inches clearance on both sides of pipe or conduit.
- F. Cut ground under pavements to comply with cross-sections, elevations, and grades indicated.
- G. If on-site materials are permitted, stockpile excavated materials where directed, until required for backfill and fill.

3.3 STABILITY OF EXCAVATION

- A. General: Comply with local codes, ordinances, and requirements of agencies having jurisdiction.
- B. Slope sides of excavations to comply with local codes, ordinances, and requirements of agencies having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

3.4 DEWATERING

- A. Prevent surface water and subsurface or ground water from entering into excavations, from ponding on prepared subgrades, and from flooding project site and surrounding area.
 - 1. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction, and discharge lines, and other dewatering system components necessary to convey water away from excavations.
 - 2. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or runoff areas. Do not use trench excavations as temporary drainage ditches.

3.5 COLD WEATHER PROTECTION:

- A. Protect excavation bottoms against freezing when atmospheric temperature is less than 35 degrees F.

3.6 BACKFILL AND FILL:

- A. Place and compact acceptable soil material in layers to required elevations. Use soil material free of clay, rock or gravel larger than 2 inches in any dimension, debris, vegetable matter, waste, and frozen materials. Use subbase material where indicated under piping or conduit; shape to fit bottom 90 degrees of cylinder.
- B. Backfill excavations as promptly as work permits, but not until completion of the following:
 - 1. Acceptance of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
 - 2. Inspection, testing, approval, and recording locations of underground utilities have been performed and recorded.
 - 3. Removal of concrete formwork.
 - 4. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.
 - 5. Removal of trash and debris from excavation.
 - 6. Permanent or temporary horizontal bracing is in place on horizontally supported walls.

3.7 PLACEMENT AND COMPACTION

- A. Ground Surface Preparation: Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow strip or break-up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.
 - 1. When existing ground surface has a density less than that specified under "Compaction" for particular area classification, break up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.
- B. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- C. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum dry density or relative dry density for each area classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
- D. Place backfill and fill materials evenly adjacent to structures, piping, or conduit to required elevations. Prevent wedging action of backfill against structures or displacement of piping or conduit by carrying material uniformly around structure, piping, or conduit to approximately same elevation in each lift.

3.8 GRADING

- A. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated or between such points and existing grades.
- B. Grading Outside Building Lines: Grade areas adjacent to building lines to drain away from structures and to prevent ponding. Finish surfaces free from irregular surface changes and as follows:
 - 1. Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 0.10 foot above or below required subgrade elevations.
 - 2. Walks: Shape surface of areas under walks to line, grade, and cross-section, with finish surface not more than 1/2 inch above or below required subgrade elevation.
 - 3. Pavements: Shape surface of areas under pavement to line, grade, and cross-section, with finish surface not more than 1/2 inch above or below required subgrade elevation.
- C. Compaction: After grading, compact subgrade surfaces to the depth and indicated percentage of maximum or relative density for each area classification.

3.9 PAVEMENT SUBBASE COURSE

- A. General: Subbase course consists of placing subbase material, in layers of specified thickness, over subgrade surface to support a pavement base course.

- B. Grade Control: During construction, maintain lines and grades including crown and cross-slope of subbase course.
- C. Placing: Place subbase course material on prepared subgrade in layers of uniform thickness, conforming to indicated cross-section and thickness. Maintain optimum moisture content for compacting subbase material during placement operations.
 - 1. When a compacted subbase course is indicated to be 6 inches thick or less, place material in a single layer. When indicated to be more than 6 inches thick, place material in equal layers, except no single layer more than 6 inches or less than 3 inches in thickness when compacted.

3.10 MAINTENANCE

- A. Protect newly-graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and re-establish grades in settled, eroded, rutted, or otherwise damaged areas. In damaged compacted areas, scarify surface, reshape, and compact to required density prior to further construction.

3.11 DISPOSAL:

- A. Remove waste materials, excess excavated material, unacceptable excavated material, trash, and debris from site, off Owner's property.

END OF SECTION 312000

SECTION 321313 – CONCRETE PAVEMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Extent of portland cement concrete paving is shown on Drawings, including curbs, walkways, and pavement.
2. Paving Joint Sealers

B. Related Sections:

1. Section 312000 – Earthwork
2. Section 321500 – Crushed Rock Base

1.2 SUBMITTALS

- A. Provide samples, manufacturer's product data, test reports, and materials' certifications as required in referenced Section 321313 for concrete, joint fillers and sealers.

1.3 QUALITY ASSURANCE

- A. Codes and Standards: Comply with local governing regulations if more stringent than herein specified.
- B. Installer Qualifications: An experienced installer who has completed pavement work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.
- D. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by the requirements of the Contract Documents.
- E. Obtain Joint Sealant Materials from a single manufacturer for each different product specified.

1.4 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Forms: Plywood, metal, metal-framed plywood, or other approved panel-type material of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects. Provide full-depth, continuous, straight, smooth exposed surfaces.
 - 1. Use flexible spring steel forms or laminated boards to form radius bends for curves of a 100-foot or less radius and as required.
- B. Form Release Agent: Coat forms with a non-staining form release agent that will not discolor or deface surface of concrete. Provide commercial formulation with a maximum of 350 g/L volatile organic compounds (VOC's).
- C. Plain-Steel Welded Wire Mesh: Fabricated from as-drawn steel wire into flat sheets, ASTM A-185.
- D. Plain, Cold-drawn Steel Wire: ASTM A 82.
- E. Hook Bolts: ASTM A-307, Grade A bolts, internally and externally threaded. Design hook bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.
- F. Concrete Materials: Comply with requirements of applicable Division 3 Sections for concrete materials, admixtures, bonding materials, curing materials, and others as required.
- G. Expansion Joint Materials: Comply with requirements of applicable Division 7 Sections for preformed expansion joint fillers and sealers.
 - 1. Bituminous Fiber Joint Filler: Pre-formed strips of asphalt saturated fiberboard, complying with ASTM D 1751.
- H. Clear Liquid-Membrane Forming and Sealing Curing Compound: Comply with ASTM C-309, Type I, Class A unless other type acceptable to Owner's Representative. Moisture loss no more than 0.055 gr./sq. cm. when applied at 200 sq. ft./gal.
- I. Bonding Compound
- J. Epoxy Adhesive: ASTM C-881, 2-component material suitable for use on dry or damp surfaces. Provide material "Type", "Grade", and "Class" to suit project requirements.
 - 1. Approved Manufacturers:
 - a. "Sikadur Hi-Mod", Sika Chemical Corporation
 - b. "Eucopoxy 452 or 620", Euclid Chemical Company

2.2 JOINT MATERIALS

- A. Sealed expansion and contraction joints: Filler of nonbituminous rubber or cork conforming to ASTM D1752.

- B. Non-sealed joints:
 - 1. Approved Manufacturers:
 - a. "Elastizell"; Elastizell Corp. of America (734-761-6900)
 - b. "Flexcell"; Knight-Celotex Corp. (214-738-7060)
 - c. "Seal Tight Fiber Expansion Joint"; W.R. Meadows Inc. (800-342-5976)
 - 1) Filler premolded bituminous type conforming to ASTM D; 756;.
- C. Noncompressive Filler:
 - 1. Approved Manufacturers:
 - a. "Styrofoam SM"; Dow Chemical Co. (800-441-4369)
- D. Compressive Filler:
 - 1. Approved Manufacturers:
 - a. "Ethafoam"; Dow Chemical Co. (800-441-4369)
 - 1) 1" or 2" thick sheets, compression modulus within the range of 15 to 25 pounds per square inch per inch.
- E. Filler Adhesive for Noncompressive Filler and Compressive Filler:
 - 1. Approved Manufacturers:
 - a. "General Purpose Mastic No. 11"; Dow Chemical Co. (800-441-4369)
 - 2. Slab-on-grade Construction Joints: Provide a full slab depth 24 gauge metal preshaped key approximate depth of key to be 1/4 slab thickness and a key width of about 1/10 slab thickness.
- F. Joint Sealants: ASTM C920. Non-priming, pourable, self-leveling polyurethane.
 - 1. Approved Manufacturers:
 - a. "SL2"; Sonneborn Building Products Division, ChemRex Inc. (800-243.6739)
 - b. "Sonomeric 1 Sealant"; Sonneborn Building Products Division, ChemRex Inc. (800-243-6739).
 - c. "Sonomeric 2 Sealant"; Sonneborn Building Products Division, ChemRex Inc. (800-243-6739).
 - d. "Vulkem 45"; Tremco, Inc. (800-562-2728)
 - e. "THC-900"; Tremco, Inc. (800-562-2728)

2.3 MIXES

- A. Concrete Mixes: Comply with requirements of applicable Division 3 Sections for concrete mix design, sampling and testing, quality control, and as herein specified.
- B. Design mix to produce normal-weight concrete consisting of portland cement, aggregate, water-reducing or high-range water-reducing admixture (superplasticizer), air-entraining admixture, and water to produce the following properties:
 - 1. Compressive Strength: 3000 psi minimum at 28 days, unless otherwise indicated.
 - 2. Slump Limits: 4 inches
 - 3. Air Content: 6 percent

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

- A. Proof-roll prepared subbase surface to check for unstable areas and need for additional compaction. Do not begin paving work until such conditions have been corrected and subgrade is ready to receive paving.
- B. Remove loose material from compacted subbase surface immediately before placing concrete.

3.2 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. Check completed formwork for grade and alignment to following tolerances:
 - 1. Top of forms not more than 1/4 inch in 10 feet.
 - 2. Vertical face on longitudinal axis not more than 1/4 inch in 10 feet.
- C. Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

3.3 STEEL REINFORCEMENT

- A. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2" overlap to adjust mats.

3.4 JOINTS

- A. General: Construct expansion, weakened-plane (contraction), and construction joints true to line with face perpendicular to surface of concrete. Construct transverse joints at right angles to the centerline, unless otherwise indicated.
 - 1. When joining existing structures, place transverse joints to align with previously placed joints, unless otherwise indicated.
 - 2. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- B. Weakened-Plane (Contraction) Joints: Form weakened-plane (contraction) joints, sectioning concrete into areas as shown on Drawings. Construct weakened-plane joints for a depth equal to at least 1/4 concrete thickness, with one of the following methods:
 - 1. Sawed Joints: Form weakened-plane joints with powered saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8" wide joints into hardened concrete as soon as surface will not be torn, abated, or otherwise damaged by cutting action.

2. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with groover tool to the following radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces. Provide 1/4" radius.
- C. Construction Joints: Set construction joints at side and at end terminations of pavement and at locations where placement operations are stopped for more than 1/2 hour, unless pavement terminates at isolation joints.
 1. Construct joints as shown or, if not shown, use standard galvanized steel or plastic keyway-section forms, or bulkhead forms with keys. Embed keys at least 1-1/2" into concrete.
 2. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
- D. Isolation Joints: Provide premolded joint filler for isolation joints abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
 1. Locate expansion joints at intervals of 50' for each pavement lane unless otherwise indicated.
 2. Extend joint fillers full width and depth of joint. Terminate joint filler less than 1/2" or more than 1" below finished surface if joint sealant is indicated. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 3. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
 4. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- E. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to the following radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces. Provide 1/4" radius, unless noted otherwise.

3.5 CONCRETE PLACEMENT

- A. General: Comply with requirements of Division 3 Sections for mixing and placing concrete, and as herein specified.
- B. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcement steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- C. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- D. Do not place concrete until subbase and forms have been checked for line and grade. Moisten subbase if required 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.
- E. Place concrete by methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with 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 dislocation of reinforcing, dowels, and joint devices.

- F. Use bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- G. Deposit and spread concrete in a continuous operation between transverse joints as far as possible. If interrupted for more than 1/2 hour, place a construction joint. Do not push or drag concrete into place or use vibrators to move concrete into place.
- H. Curbs: Automatic slip-form machine may be used for placement at Contractor's option. If machine placement is to be used, submit revised mix design and laboratory test results that meet or exceed minimums specified. Machine placement must produce curbs and gutters to required cross-section, lines, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified.
 - 1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of paver machine during operations.

3.6 CONCRETE FINISHING

- A. After striking-off and consolidating concrete, smooth surface by screeding and floating.
 - 1. Wetting of concrete surfaces during screeding, initial floating, or finishing operations is prohibited.
 - 2. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and the 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.
- B. After floating, test surface for trueness. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish. Comply with tolerances of ACI 117 and as follows:
 - 1. Elevation: 1/4"
 - 2. Thickness: Plus 3/8", minus 1/4"
 - 3. Surface: Gap below 10' long, unlevelled straightedge not to exceed 1/4"
 - 4. Joint Spacing: 3"
 - 5. Contraction Joint Depth: Plus 1/4", no minus.
 - 6. Joint Width: Plus 1/8", no minus.
- C. Work edges of slabs, gutters, back top edge of curb, and formed joints with an edging tool, and round to 1/2 inch radius, unless otherwise indicated. Eliminate tool marks on concrete surface.
- D. After completion of floating and when excess moisture or surface sheen has disappeared, complete troweling and finish surface as follows:
 - 1. Broom finish by drawing a fine-hair broom across concrete surface perpendicular to line of traffic. Repeat operation if required to provide a fine line texture acceptable to Owner's Representative.
 - a. On inclined slab surfaces, provide a coarse, non-slip finish by scoring surface with a stiff-bristled broom, perpendicular to line of traffic.

- E. Exposed vertical surfaces shall be finished as follows:
 - 1. Smooth form finish with grout-cleaned finish.
- F. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by Owner's Representative.

3.7 CURING

- A. Protect and cure finished concrete paving in compliance with applicable requirements of Division 3 Sections. Use membrane-forming curing and sealing compound or approved moist-curing methods.

3.8 REPAIRS AND PROTECTIONS

- A. Repair or replace broken, damaged, defective concrete, or does not meet requirements of this Section, as directed by Owner's Representative.
- B. Drill test cores where directed by Owner's Representative when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- C. Protect concrete from damage until acceptance of work. 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.
- D. 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.

END OF SECTION 321313

SECTION 321500 - CRUSHED ROCK BASE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide all labor and equipment to perform the following Work of the Contract, including incidentals related to that Work and other Work specified elsewhere in the Contract Documents:
 - 1. Crushed rock base for cast-in-place concrete and asphalt

1.2 RELATED SECTIONS

- A. Coordinate related Work specified in other parts of the Project Manual, including but not limited to the following:
 - 1. Section 311000 – Site Preparation
 - 2. Section 312000 – Earthwork
 - 3. Section 321313 – Concrete Pavement

1.3 REFERENCES

- A. Standard Specifications: WSDOT Standard Specifications for Road, Bridge and Municipal Construction, current edition.

1.4 QUALITY ASSURANCE

- A. The Contractor is responsible for verifying the quality of the Work and shall perform compaction and density tests on request of the Owner's Representative to check compliance with these Specifications. A copy of the test reports shall be furnished to the Owner.
- B. The Owner's Testing Agency may perform compaction and density tests to check compliance with these Specifications.
- C. The Owner may require that an independent testing laboratory test imported materials at any time. If the material is found to be non-compliant with the Contract, the Contractor shall bear the cost of testing, removal of all noncompliant materials from the Project Site, and replacement of the materials with materials meeting the requirements of the Contract. If the materials tested are found to be compliant with the requirements of the Contract, the Owner will reimburse the Contractor for costs incurred by testing plus mark-ups as allowed or elsewhere in the Contract.
- D. It is the responsibility of the Contractor to verify the accuracy of all survey information provided by the Owner prior to commencing excavations or filling operations. Commencement of these operations constitutes acceptance of the survey information as appropriate to meet the intent of the Contract.
- E. Submittals:

1. The Owner's Representative shall approve in principle all products used in the execution of this section prior to their importation to the Project Site. Submit a particle gradation analysis in graph and table form for each product specified. Approval by the Owner's Representative of an analysis does not constitute approval of the actual product, which may be subject to additional testing at any time per paragraph 1.4.C in this Section.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Prior to the importation of any materials, the Contractor shall provide the Owner's Representative with a certified test lab report of the sieve analysis of the product. The Owner shall be the final determining factor in establishing compliance with sieve requirements. No material shall be brought onto the job site until the initial sieve analysis has been approved in writing.
- B. During the course of importation of materials, the Contractor shall be responsible for continually checking the materials to ensure that they continue to meet the Specifications.

2.2 CRUSHED ROCK TOP COURSE

- A. Type 1 mineral aggregate (5/8 inch minus crushed rock, bearing no naturally occurring or worn surfaces) per WSDOT Standard Specifications Section 9-03.9(3) Crushed Surfacing – Top Course and Keystone. Graduation of the base course shall be:

<u>Sieve Size</u>	<u>Percent Passing</u>
3/4 inch square sieve	100
1/2 inch square sieve	80-100
No. 4 sieve	46-66
No. 40 sieve	8-24
No. 200 sieve	10.0 maximum

PART 3 - PART 3 EXECUTION

3.1 PROTECTION OF EXISTING FACILITIES

- A. Utilities: The Contractor shall protect private and public utilities from damage. Verify the locations of underground utilities minimum 48 hours prior to excavation.
- B. Pavement: The Contractor shall protect from damage all pavement or paved areas including curbs and walks intended to remain. Contractor shall be responsible for replacement if damage occurs to pavement or curbs.
- C. It is the responsibility of the Contractor to protect all Work in progress from damage due to extremes of cold, moisture, or drying, or mechanical damage from equipment traffic or foot traffic. Alert the Owner's Representative to the presence or likelihood of conditions that may

adversely affect the quality of the Work, the physical structure of soils, or transport of site soils off site.

3.2 PREPARATION

- A. Do not work frozen soils.
- B. Protect crushed rock from excessive moisture; cover stockpiles with plastic sheeting during wet periods.
- C. Apply supplemental moisture to overly dry soils.

3.3 SUBGRADE PREPARATION

- A. Removal of materials beyond indicated sub-grade elevations or dimensions without specific direction of Owner's Representative is not authorized. Unauthorized excavation, as well as remedial Work directed by Owner, shall be at the Contractor's expense.
- B. Prepare and compact sub-grade per the Drawings and Section 312000 – Earthwork. Obtain Owner Representative's approval of sub-grade prior to placing any crushed rock.

3.4 CRUSHED ROCK TOP COURSE FOR CONCRETE

- A. Provide minimum 6-inch compacted depth top course as shown on the Drawings.

3.5 COMPACTION OF CRUSHED ROCK

- A. A. Percentage of Maximum Density Requirements: Compact crushed rock to not less than the following percentages for maximum density that exhibits a well-defined moisture density relationship determined in accordance with ASTM D1557, and not less than the following percentages of relative density determined in accordance with ASTM 2049, for materials that will not exhibit a well-defined moisture density relationship.
 - 1. Crushed Rock Base Course – 95 percent
 - 2. Crushed Rock Top Course – 95 percent

END OF SECTION 321500

SECTION 321723.33 – THERMOPLASTIC PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. This item includes white thermoplastic pavement markings for crosswalks.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 321313 Concrete Pavement

1.3 REFERENCES

- A. ASTM E 28 - Standard Test Methods for Softening Point of Resins Derived from Naval Stores by Ring-and-Ball Apparatus.
- B. ASTM G 152 - Standard Practice for Operating Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials.
- C. ASTM G 153 - Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials.

1.4 SUBMITTALS

- A. Product Data: Submit Manufacturer's literature indicating product specifications and instructions for handling, installation, and curing. Include performance test data sheets for each product.
- B. Submit material supplier's certification of compliance with specifications.
- C. Chemical Analysis: Submit infrared analysis of Type B resins for each manufacturer used.

PART 2 - PRODUCTS

2.1 MATERIAL REQUIREMENTS

- A. General Requirements: Thermoplastic pavement marking material Type B for use on either asphaltic or Portland cement concrete surfaces. Clearly mark each container to indicate color, weight, type of material, and lot or batch number (consider lot or batch as each individual mix or blend that produces finished product ready for use). Package material in either suitable corrugated containers or thermal degradable plastic bags to avoid sticking during shipment or storage.

- B. Thermoplastic markings shall not be slippery when wet, nor exhibit tacky, exposed surface. Cold ductility of material shall permit normal road surface expansion and contraction without chipping or cracking. Markings shall retain their original color, dimensions, and placement under normal traffic conditions at road surface temperatures of 158 F and below.
- C. Prime and filler pigments shall pass U.S. Standard sieve No. 230 (0.0024 inch opening) when washed free of resins by solvent washing, and meet following specific requirements for each pigment.
1. Prime Pigments: White pigment shall be Rutile Titanium Dioxide.
 2. Filler Pigment: Filler pigment shall be calcium carbonate, 95% purity.
- D. Binder
1. Type B - Alkyd: Use binder consisting of mixture of resins, at least one of which is solid at room temperature, and high boiling point plasticizers. At least one-third of binder compositions shall be a maleic-modified glyceryl ester 012 Rosin and shall be no less than 8% by weight of entire material formulation.
- E. Glass Traffic Beads: the total silica used in formulation shall be in form of glass traffic beads meeting the following requirements:
1. Manufacture. Use glass traffic beads having the following characteristics:
 - a. Manufactured from glass;
 - b. Spherical in shape;
 - c. Free of sharp angular particles;
 - d. Free of particles showing milkiness, surface scoring, or surface scratching;
 - e. Water white in color.
 2. Contaminants. Use glass traffic beads having the following characteristics:
 - a. Containing less than 1/4 of 1% moisture by weight;
 - b. Free of trash, dirt, etc;
 - c. Showing no evidence of objectionable static electricity when flowing through regular traffic-bead dispenser.
 3. Gradation:
 - a. Sieve Analysis. Glass traffic beads shall meet following gradation requirements:

Openings U.S. Standard Sieves Percent
Passing No. 20 95 - 100
No. 30 80 - 95
No. 50 15 - 35
No. 100 0 - 4
 - b. Irregular Particles: Glass traffic beads, retained on screen used to determine gradation requirements, shall not contain more than 30% (by weight) irregular particles.
 4. Index of Refraction: Glass traffic beads when tested by using liquid immersion method at 25 C (77 F) shall show index of refraction within range of 1.50 to 1.53.
 5. Wetting. Use glass traffic beads capable of being readily wet with water when tested.
 6. Stability. Use glass traffic beads showing no tendency toward decomposition, surface etching, change in retro reflective characteristics, or change in color after:
 - a. One hour exposure to concentrated hydrochloric acid at 25 C (77 F);
 - b. Twenty-four-hour exposure to weak alkali;

- c. One hundred hours of Weather-O-Meter exposure, in accordance with ASTM G 152 and ASTM G 153.

2.2 FINISHED PRODUCT REQUIREMENTS

- A. Physical Characteristics. Finished thermoplastic pavement markings material shall be free flowing granular material, unless otherwise shown on Drawings. Material shall remain in free flowing state in storage at temperatures of 100 F or less. Materials shall be readily sprayed through nozzles commonly used on thermoplastic spray equipment at temperatures between 205 and 218 C (401 to 425 F).
- B. Toxicity. At temperatures up to and including 230 C (446 F), materials shall not give off fumes which are toxic and otherwise injurious to persons, animals, or property.
- C. Material shall not break down or deteriorate when held at 205 C (401 F) for 4 hours.
- D. Temperature versus viscosity characteristics of material in plastic state shall remain constant throughout up to four reheatings at 205 C (401 F) and from batch to batch.
- E. Material shall not be adversely altered by contact with sodium chloride, calcium chloride, or other similar chemicals on, or used on, roadway surface; by contact with oil content of pavement materials, or by contact from oil dropping from traffic.
- F. Softening Point. After heating thermoplastic materials for two hours at 204 C (400 F) Type B Alkyd material shall have softening point greater than 90 C (194 F) when tested in accordance with ASTM E 28-58T - Ball and Ring Method.
- G. Color. CIE chromaticity coordinates of materials shall fall within area having following corner points and shall meet following luminosity requirements.

CIE CHROMATICITY COORDINATE CORNER POINTS

Color	Point 1		Point 2		Point 3		Point 4	
	X	Y	X	Y	X	Y	X	Y
Luminosity White								
{tc \12 "White}	0.290 - 0.315		0.310 - 0.295		0.350 - 0.340		0.330 - .360	Min 65

Material shall meet above specified color requirements, before and after 70 hours of exposure in Weather-O-Meter (Atlas, Sunshine Type) fitted with 18 - 102 (18 minutes of sunshine and rain and 102 minutes of sunshine) cyclic gear. Prepare panels for testing with material as supplied.

- H. Abrasion. Thermoplastic pavement marking materials shall have loss between 4.0 and 12.0 grams when tested for abrasion. Test according to steps 1 through 8 of procedure utilizing following test parameters:

Test distance: 5
inches Blast
pressure: 40 psi
Sample angle: 10 degrees and 122 gram blast
media Blast Media: 1200 grams

- I. Uniformity. Manufacture material so that 100-gram sample will be representative of batch or lot of material.
- J. When applied 1/8 inch thick, setting time shall not exceed characteristic straight-line curve, lower limit of which is four minutes at 59 F road surface temperatures, and upper limit of which is ten minutes at 90 F road surface temperature. Both temperatures are to be measured at maximum relative humidity of 90%.

2.3 FORMULAE

- A. Type B - Alkyd Thermoplastic Marking:

POUNDS

Binder 18 - 23

Titanium Dioxide 12 - 15

Calcium Carbonate 20 - 42

Glass Traffic Beads 30 - 45

TOTAL 100

PART 3 - EXECUTION

3.1 GENERAL

- A. Spray apply pavement marking or extrude hot to pavement surface unless application method is specified on Drawings.
- B. Provide continuous mixing and agitation of material. Provide clean, square, marking ends. Do not use pans, aprons, or similar appliances which dye overruns.
- C. Provide thermometer capable of measuring temperature of pavement marking material.
- D. Use automatic bead dispenser attached to pavement marking equipment in manner that beads are dispensed uniformly and almost instantly upon marking as marking is being applied to road surface. Rate of application shall be sufficient to achieve retro-directive reflective characteristics specified. Provide automatic cut-off control for bead dispenser, synchronized with cut-off of pavement marking equipment.
- E. Place markings in accordance with approved traffic control plan so that minimal interruption to traffic flow is achieved. Protect newly-installed pavement markings from damage by traffic.

- F. Apply pavement markings onto clean, dry pavement having road surface temperature above 60 F for Portland cement concrete surface and above 50 F for asphaltic surface. When pavement marking application is by spray and operations cease for five or more minutes, flush spray head by spraying pavement marking material into pan or similar container until material is proper temperature for application.
- G. Use markings that are completely reflectorized internally and externally.
- H. Use crew experienced in work of installing pavement markings and supply all equipment and materials necessary for placement of pavement markings.
- I. Apply material within temperature limits recommended by manufacturer.
- J. Prior to placement of thermoplastic material, properly prepare pavement with primer.

3.2 LAYOUT

- A. Place pavement markings in proper alignment with guidelines established on roadway. Do not deviate from alignment established greater than two inches. Do not deviate in alignment of marking being placed greater than one inch per 200 feet of marking and do not deviate abruptly.
- B. Place additional markings required to achieve alignment specified throughout both straight and horizontally curved sections of roadway. Additional markings placed on roadway for alignment purposes shall be temporary in nature and shall not establish permanent marking on roadway. Materials used for alignment markings and equipment used to place markings shall be approved by Owner's Representative.

3.3 SURFACE PREPARATION

- A. Clean pavement by sandblasting and prepare in accordance with recommendations of thermoplastic material manufacturer and to satisfaction of Owner's Representative, prior to placement of markings. Surface scarification can be used with prior approval of Owner's Representative.
- B. Use cleaning methods approved by Owner's Representative that completely remove contaminants, loose materials, and conditions deleterious to proper adhesion. Do not clean Portland cement concrete surfaces by grinding
- C. Prepare Portland cement concrete surfaces further after cleaning by completely sealing with epoxy or methyl methacrylate sealer, as recommended by thermoplastic material manufacturer. Place sealer sufficiently in advance of thermoplastic to allow release of all solvents.
- D. Prime asphaltic surfaces with sealer, as recommended by thermoplastic material manufacturer based on surface conditions. Include adhesive or adhesion promoter when asphaltic surfaces exhibit polished aggregate.

3.4 INSTALLATION

- A. Install in widths of 4, 6, 8, 12, or 24 inches, or shaped otherwise as shown on Drawings. Tolerances in width shall not exceed 1/8 inch. Tolerance shall not exceed 1/4 inch in case of undulation in pavement.
- B. Material shall not prohibit adhesion of other thermoplastic markings if, at some future time, new markings are placed over existing materials.
- C. Maintain uniform thickness of each pavement marking. Minimum thickness of markings, as measured above plane formed by pavement surface, shall not be less than 1/8 inch (125 mils), unless shown otherwise on Drawings. Maximum thickness shall be 3/16 inch. Supply device, approved by Owner's Representative, to measure thickness of applied extruded markings.

3.5 TESTING

- A. Maintain uniform cross section, density, quality, and thickness for markings. Markings shall be uniform throughout their thickness. Use applied markings that are 95% free of holes and voids, and free of blisters for minimum of 60 days after application.

END OF SECTION 321723.33

SECTION 321816 – PLAY EQUIPMENT SAFETY SURFACING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Work included: The work of this Section includes the following:
1. Engineered Wood Fiber, see plans.

1.3 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
- B. American Society For Testing And Materials (ASTM)
1. ASTM C 136 (1996a) Sieve Analysis of Fine and Coarse Aggregates
 2. ASTM D 412 (1992) Rubber and Thermoplastic Rubbers and Thermoplastic Vulcanized Elastomers - Tension
 3. ASTM D 1557 (1991) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft. (2,700 kN-m/cu. m.))
 4. ASTM D 2047 (1993) Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine
 5. ASTM D 4491 (1992) Water Permeability of Geotextiles by Permittivity
 6. ASTM D 4533 (1991) Trapezoid Tearing Strength of Geotextiles
 7. ASTM D 4632 (1991) Grab Breaking Load and Elongation of Geotextiles
 8. ASTM F 1292 Impact Attenuation of Surface Systems Under and Around Playground Equipment
 9. ASTM F 1487 Playground Equipment for Public Use
 10. ASTM F-1951-99 (Previously ASTM PS 83-97) Determination of Accessibility of surface systems under and around playground equipment
 11. ASTM E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method
 12. ASTM F355 Test Method for Shock-Absorbing Properties of Playing Surface Systems and Materials
 13. ASTM F429 Test Method for Shock-Attenuation Characteristics of Protective Headgear for Football
 14. ASTM F 2075 Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment

- C. Code Of Federal Regulations (CFR)
 - 1. 36 CFR 1191 Americans with Disabilities Act (ADA) Accessibilities Guidelines for Buildings and Facilities, and most recent update of Sept 2002.
- D. Federal Standards (FED-STD)
 - 1. FED-STD 795 (Basic) Uniform Federal Accessibility Standards
- E. Consumer Product Safety Commission (CPSC)
 - 1. CPSC Pub No 325 Handbook for Public Playground Safety

1.4 DEFINITIONS

- A. **Critical Height:** Standard measure of shock attenuation. According to CPSC No. 325, this means "the fall height below which a life-threatening head injury would not be expected to occur."
- B. **Fall Height:** According to ASTM F 1487, this means "the vertical distance between a designated play surface and the protective surfacing beneath it." The fall height of playground equipment should not exceed the Critical Height of the protective surfacing beneath it.
- C. **Use Zone:** According to ASTM F 1487, this means "the area beneath and immediately adjacent to a play structure that is designated for unrestricted circulation around the equipment and on whose surface it is predicted that a user would land when falling from or exiting the equipment."

1.5 PERFORMANCE REQUIREMENTS

- A. Safety surfacing within playground equipment use zones shall meet or exceed the impact attenuating performance requirements of CPSC Pub No 325 and ASTM F 1292 that a surface yield both a peak deceleration of not more than 200 g's, and a Head Injury Criteria (HIC) value of no more than 1,000, for a head-first fall from the highest accessible portion of play equipment being installed. The highest accessible portion of playground equipment shall be as specified in Part 2 of this section. The impact attenuation performance for sand, gravel, and wood products not specifically manufactured as playground safety surfacing shall be considered met by installing the minimum final material depth specified.
- B. **Pre-construction Conference:** Conduct conference at Project site to review locations of Play Equipment Safety Surfacing and schedule for coordination with Play Equipment installation.
 - 1. Before starting installation, meet with Owner's Representative, Landscape Architect, Play Equipment and Play Equipment Safety Surfacing Contractor. Review installation procedures and responsibilities. Notify participants at least three working days before convening conference. Record discussions and agreements and furnish a copy to each participant.

1.6 ACCESSIBILITY

- A. Safety surfaces indicated to serve as accessible paths of travel for persons with disabilities shall be firm, stable, and slip resistant, and shall meet the requirements of FED-STD 795, 36 CFR 1191, ASTM F 1487, and ASTM F 1292.
- B. Safety surfaces under and around all play equipment shall meet the requirements of ASTM F-1951-99.

1.7 SUBMITTALS

- A. Data: Playground Safety Surfaces. Manufacturer's descriptive data and installation instructions, including cleaning and preventative maintenance instructions.
- B. Drawings: Playground Safety Surfaces; Drawings showing depth of the safety surfacing system, including depths of material, subbase materials, hardware, edge details, and drainage.
 - 1. Installation details for ramps and accessories.
 - 2. Colors and patterns of surfaces.
- C. Statements - Playground Safety Surfaces; A listing of at least 10 installations where products similar to those proposed for use have been installed and have been in successful service for a minimum period of 3 years. This list shall include Owner or Purchaser; address of installation; service or maintenance organization; date of installation; contact person; and phone number.
- D. Reports - Playground Safety Surfaces; Manufacturer's test data reflecting the results of ASTM F 1292 test for each synthetic surfacing proposed for use on the outdoor play area.
- E. Certificates - Playground Safety Surfaces;
 - 1. International Playground Equipment Manufacturing Association (IPEMA) certificates of compliance.
 - 2. For wood products manufactured for the purpose of safety surfacing, a statement signed by an official authorized to certify on behalf of the manufacturer attesting that the installed surfacing meets the requirements of ASTM F 1292 for a head-first fall from the highest accessible portion of specified playground equipment. The impact attenuating qualities of the surfacing system shall not be diminished in the surface areas covering any fastening device or other hardware required to secure the surfacing system in place. Testing of product shall include tests conducted over hardware. The statement shall be dated after the award of the contract, shall state the Contractor's name and address, and shall name the project and location. The statement shall also provide the name, address, and telephone number of the testing company, the date of the test, and the test results. Regardless of the installer, the statement shall also attest that the installation complies with manufacturer's instructions and specifications.
 - 3. Statement signed by an official authorized to certify on behalf of the manufacturer of sand, gravel, or wood products, attesting that the surfacing material is free from poisonous plants, foreign objects, hazardous substances, or toxic chemicals. The statement shall be dated after the award of the contract, shall state the Contractor's name and address, and shall name the project and location.
 - 4. A Certificate of Insurance by manufacturers of synthetic safety surfacing or wood products manufactured for use as safety surfacing, covering both product and general liability, of not less than \$1,000,000. The issuing underwriter shall be AA rated.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has specialized in installing work similar in material, design, and extent to that indicated for this Project and whose work has resulted in installations with a record of successful in-service performance.
 - 1. Engage an installer who employs workers trained and approved by playground surface system manufacturer to install manufacturer's products.

1.9 MANUFACTURER QUALIFICATIONS

- A. Total Liability Insurance Coverage: \$11,000,000.
- B. Provide proof of attendance of National Playground Safety Institute (NPSI) training.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Materials shall be delivered and stored in accordance with the manufacturer's recommendations.
 - 1. Store manufactured materials in a clean, dry location, protected from the weather and deterioration, and complying with manufacturer's written instructions for minimum and maximum temperature requirements for storage.

1.11 SITE CONDITIONS

- A. The subsurface shall be dry, with no prospect of rain during the installation period. Temperatures shall be as recommended by the manufacturer.
- B. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit playground surface system installation to be performed according to manufacturers' written instructions and warranty requirements.

1.12 SEQUENCING AND SCHEDULING

- A. Install safety surfacing after the playground equipment is installed. Coordinate with installation of playground equipment.

PART 2 - PRODUCTS

2.1 SAFETY SURFACING

- A. Engineered Wood Fibers: Random-sized wood fibers, in manufacturer's standard fiber size, approximately 10 times longer than wide; containing no bark, leaves, twigs, or foreign or toxic materials according to ASTM F 2075; graded according to manufacturer's standard specification for material consistency for playground surfaces and for accessibility according to ASTM F 1951.
- B. Critical Height: 8 feet.

1. Compacted Material Depth: 12-inches minimum, but not less than as required for critical height indicated, whichever is greater.
- C. Products: Subject to compliance with requirements, provide one of the following:
 1. Fibar Group LLC (The); Fibar,;
 2. GameTime; GT Impax Engineered Wood Fiber
 3. Or approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General
 1. Playground surfacing shall be installed according to the manufacturer's installation specifications and as shown on the drawings, and shall meet the requirements of CPSC Pub No 325, ASTM F 1292 and ASTM F 1487.
- B. Measurement
 1. Installation heights of all equipment: comply with ASTM F 1487 (most recent version) and CPSC No. 325 requirements for range of users.

3.2 ENGINEERED WOOD FIBER SURFACE INSTALLATION

- A. Prior to commencement of work, coordinate installation of play equipment footings with Owner's installer.
- B. Minimum Depth
 1. Engineered wood fiber shall be installed at a minimum final (settled) depth of 12 inches throughout the fall zone and over footings and footing hardware to meet the specified impact attenuation safety performance requirement.
- C. Finish Grading: Hand rake to a smooth finished surface and to required elevations with zero tolerance.

3.3 MANUFACTURER'S SERVICES

- A. A manufacturer's representative experienced in installation, adjustment, and operation of the specified playground safety surface shall be provided by the Contractor for on-site inspections during installation. The representative shall supervise the installation and adjustment of playground equipment to ensure that the safety surfacing meets the specified impact attenuation safety performance requirements and the requirements of CPSC Pub No 325, ASTM F 1292 and ASTM F 1487.

3.4 CLEANING AND PROTECTION:

- A. Keep the work area neat and free of hazards at all times. Erect barriers, supervise the work and take all other necessary steps to protect the public and workmen from harm

- B. Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Replenish with matching material, repair, and reestablish densities and finish elevations where surfaces become eroded, rutted, or settled or where they lose compaction and depth, until date of Substantial Completion.
- C. Upon completion of equipment installation, clean all equipment. In addition, clean all surrounding areas soiled or otherwise disturbed by this work. Leave the play equipment and the playground area clean and orderly. Remove surface material, concrete, scarps, and other debris from the site.

END OF SECTION 321816

SECTION 329113 - TOPSOIL PLACEMENT

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This section covers placement, grading and compaction of clean imported topsoil for restoration.

1.2 SUBMITTALS

- A. Product Data: Provide submittals indicating conformance to all requirements.
- B. Provide complete submittals for each individual component and blended topsoil compliance with all requirements.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Topsoil shall not contain any viable seeds or roots capable of sprouting any State-listed noxious weed, or invasive root propagating plants including but not limited to horsetail, ivy, clematis, knotweed, etc. Topsoil found to contain these prohibited viable plant materials shall be removed and replaced at the Contractor's expense.

2.2 TOPSOIL

- A. Topsoil shall be a well-mixed blend of 60% sand and 40% compost, by volume.
- B. Sand for topsoil shall be a naturally occurring non-crushed material obtained from a pit that is mining native virgin sand and gravel, from an upland area not impacted by sea-water or tidal zone. Material shall be free of roots, weeds, wood, bark, debris, and other extraneous material. Gradation shall meet the following specifications (ASTM D 422):

Sieve Size	Percent Passing
Number 4	100
Number 8	95-100
Number 16	85-100
Number 30	50-75
Number 60	10-30
Number 100	0-10
Number 140	0-5
Number 200*	0-2

* Indicates wet sieve test.

- C. Sand, if washed, shall be freshwater washed. However, washing is not a requirement if the sieve analysis can be met without washing.
- D. Final topsoil shall have a pH of between 5.5 and 8.0.
- E. Suppliers that may be able to provide materials that meet these specifications:
 - 1. 2-Way Topsoil by Cedar Grove in Everett, WA
 - 2. 2-Way Topsoil by Corliss Resources, Inc. in Puyallup, WA.
 - 3. Approved equal.

2.3 COMPOST

- A. Compost: Compost shall consist of composted yard debris or organic waste material composted for a minimum of 3 months meeting the requirements of WAC 173-350-220. Compost shall consist of 100 percent recycled content.
 - 1. Shall be certified by the “Process to Further Reduce Pathogens” PFRP guideline for hot composting as established by the EPA.
 - 2. Meeting Class A requirements per USEPA, including Part 503 maximum pollutant levels.
- B. The compost shall have the following additional physical characteristics:
 - 1. Shall be screened to 5/8 in. minus, with at least 50 percent by weight passing the 1/8 in. sieve.
 - 2. Shall have a minimum organic matter of 40 percent (dry weight).
 - 3. Shall have a pH from 6.0 to 8.0.
 - 4. Shall have a maximum electrical conductivity of 4.0 dS/mohms/cm.
 - 5. Shall have a maximum carbon to nitrogen ratio of 30:1.
 - 6. Less than 0.1 percent by weight physical contaminants.
- C. Suppliers that may be able to provide materials that meet these specifications:
 - 1. Compost by Cedar Grove in Everett, WA
 - 2. Cascade Compost by Corliss Resources, Inc. in Puyallup, WA.
 - 3. Approved equal.

PART 3 - EXECUTION

3.1 GENERAL PLACEMENT

- A. Topsoil shall be supplied with under optimum moisture content. Topsoils that are wet or liquefied shall not be placed. The Contractor shall remove wet topsoil and replace it at the Contractors expense.
- B. Topsoil shall not be placed on wet, muddy, or soft subgrades, nor placed in water.
- C. Topsoil shall not be placed in freezing conditions.
- D. Do not place topsoil until receipt of written approval by the Owner's Representative.
- E. Do not use topsoil as haul road. Avoid heavy truck traffic on topsoil cover.
- F. Do not place topsoil on wet subgrades or subgrades with standing water. Keep equipment off the subgrade if excess rainfall has softened it.
- G. Obtain approval of demolition activities, utility/pipe installations, drainage, and re-established subgrade before backfilling or placing any topsoil. Use low ground pressure equipment to place topsoil. Provide protection as required for utilities. Establish haul routes as needed to avoid utilities. Repair and restore haul routes as work progresses.
- H. Wet the material evenly and as required for compaction and grade and compact to the finish grade. Prescribed depth shall be compacted depth. Finish grades shall be verified by professional topographic survey. Meet finished grade tolerances. Field fit final fine grading (i.e., 0.1 to 0.2 feet) to provide uniform and continuous even grades and transitions to existing grade, path and paved areas. Complete minor grading of existing path as required to avoid discontinuities and areas of ponding.
- I. Finish Grade Tolerance: Plus 0.05 feet; minus 0.05 feet. Provide smooth transitions to existing grades and site features to maintain drainage. Final grade of soil shall accommodate the thickness of the sod so that final grades after sod placement matches original grade. The Contractor shall verify typical sod thickness prior to final grading and shall make adjustments for actual sod thickness as required.

3.2 GENERAL GRADING

- A. Grade filled sections including transition areas, to provide positive drainage. Reshape areas rutted or otherwise disturbed during construction operations to obtain uniform transition to adjacent areas or finish grades as indicated.
- B. Grades not otherwise indicated shall be uniform levels or slopes between existing grades. The finish surface shall be reasonably smooth, compacted and free from irregular surface changes. The degree of finish shall be that ordinarily obtained by either blade grader, except as otherwise specified. Hand grade areas immediately adjacent to building walls and other structures to slope down away from building or structure for proper drainage.

- C. Finish ditches so as to permit adequate drainage. Finish lawn areas to smoothness acceptable for sports field. Grade areas for paving and walks for proper drainage. Meet specified tolerances.
- D. Protect newly graded areas from traffic and erosion. Promptly repair and reestablish grades in settled, washed away or rutted areas.

3.3 COMPACTION

- A. General: Compact topsoil to 85 to 88 percent of maximum density per ASTM D 1557. Topsoil layer shall be uniformly tamped and free of voids, with no areas of over compaction that would inhibit water infiltration or plant growth.
 - 1. Under compacted soils that later settle and cause uneven lawn surface shall be filled and re-seeded at the Contractor's expense.
- B. Slopes and paths: For paths, and slopes greater than 4 percent, compact topsoil to 88-92 percent of maximum density per ASTM D 1557 or as indicated otherwise on the drawings for specific areas.
- C. Adjust moisture content as needed to attain specified compaction.
- D. Corrective Action: Over-compacted topsoil shall be scarified and tilled to meet the specified density. Under-compacted soils shall be compacted further. Soils that settle and create an uneven surface or cause water ponding shall be filled and/or re-graded as approved by Ecology to achieve the specified grade.
- E. Re-testing: The Contractor shall re-test compaction after corrective action.

3.4 PROTECTION AND REPAIR

- A. Protect newly graded areas from traffic and from erosion, and any settlement or washing away that may occur from any cause.
- B. Repair damaged areas to reestablish the original elevations and slopes. Restore any damaged or eroded areas with topsoil.

END OF SECTION 329113

SECTION 329300 - PLANTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fine Grading and Preparing Lawn Areas
2. Seeding New Lawns
3. Reconditioning Existing Lawn Areas
4. Soil Amendments
5. Trees
6. Shrubs
7. Ground Covers
8. Establishment and Maintenance

B. Related Sections:

1. Section 01740 – Maintenance Bond and Guarantee
2. Section 311000 – Site Preparation
3. Section 312000 – Earthwork
4. Section 329113 – Topsoil Placement

1.2 REFERENCES

- A. ANSI Z60.1-1986 - American Standard for Nursery Stock.
- B. Sunset Western Garden Book, Lane Publishing Co., for plant nomenclature.

1.3 DEFINITIONS

- A. Weeds: Any plant life not specified within Specifications or on Drawings.
- B. Plants: Living trees, plants, and groundcover as indicated within Specifications or on Drawings.

1.4 SUBMITTALS

A. Submit the following information:

1. Label data substantiating that plants, trees, shrubs, and planting materials comply with specified requirements.
2. Certification of grass seed from seed vendor for each grass-seed mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.

B. Samples:

1. Submit one (1) quart of specified topsoil, compost and mulch for approval by Owner's Representative prior to placement.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has completed landscaping work similar in material, design, and extent to that indicated for this project and with a record of successful grass establishment.
- B. Nursery Qualifications: Company specializing in growing and cultivating the plants with 3 years documented experience.
- C. Tree Pruner Qualifications: Company specializing in pruning trees and tree roots with proof of Arborist Certification.
- D. Regulatory Requirements:
 1. Comply with regulatory agencies for fertilizer and herbicide composition.
 2. Perform work in accordance with applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for inspections and permits required by Federal, State, and local authorities in furnishing, transporting and installing materials.
- E. Source Quality Control
 1. Do not make substitutions. If specified landscape material is not obtainable, submit proof of non-availability to Owner's Representative, together with proposal for use of equivalent material.
- F. Trees and Shrubs: Provide trees and shrubs of quantity, size, genus, species, and variety shown and scheduled for landscape work and complying with recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock". Provide healthy, vigorous stock, grown in recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions, or disfigurement.
- G. Label each tree and shrub with securely-attached waterproof tag bearing legible designation of botanical and common name.
 1. Where formal arrangements or consecutive order of trees or shrubs are shown, select stock for uniform height and spread, and label with number to assure symmetry in planting.
- H. Inspection: The Owner's Representative may inspect trees, plants, and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size, and quality. Owner's Representative retains the right to further inspect trees and shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from project site.
- I. Pre-installation Meeting:
 1. Hold at time and place designated by Owner and attended by Owner's Representative, Landscape Architect, Contractor, landscaping trades and other trades whose work affects landscaping before starting work.

2. Discuss and finalize the following:
 - a. Review project Drawings and Specifications, including revisions, approved shop drawings and documented local landscaping practice; resolve conflicts, deviations or differences in local practice and project documents.
 - b. Review Drawings for correct drainage, appropriate plants for locations shown, location and purity of water and verification of soil test results.
 - c. Time schedule and sequence of events proposed for installation.
 - d. Review limitations imposed by weather and special requirements of Contractor.
 - e. Establish storage and working areas of site available for use.
 - f. Clarify specifications, details, applications/installation requirements, what work should be completed before start of landscaping, and other items affecting installation and quality application of landscaping.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.
 1. Deliver fertilizer to the site in original, unopened containers bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark and conformance to state law.
 2. In-lieu of containers, and provided that it is to be applied at time of delivery, fertilizer may be furnished in bulk, and a certificate indicating the above information shall accompany each delivery.
- B. Trees, Shrubs and Ground Covers: Provide freshly-dug trees and shrubs. Do not prune prior to delivery unless otherwise approved by the Owner's Representative. Do not bend or bind-tie trees or shrubs in such manner as to damage bark, break branches, or destroy natural shape. Provide protective covering during delivery. Do not drop balled and burlapped stock during delivery. Do not drop or pick up plants by their stems or trunk.
 1. Protect trees moved by winch or crane from chain marks, girdling, or other bark slippage by means of burlap, wood battens or other acceptable method. Damaged plant material will be rejected.
- C. Deliver trees, shrubs and ground covers after preparations for planting have been completed and plant immediately. If planting is delayed more than six hours after delivery, set trees and shrubs in shade in one (1) location as designated by Owner's Representative, protect from weather and mechanical damage, and keep roots moist by covering with mulch, burlap, or other acceptable means of retaining moisture.
- D. Do not remove container-grown stock from containers until planting time.

1.7 PROJECT CONDITIONS

- A. Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.

- B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Owner's Representative before planting.
- C. Work Notification: Notify the Owner's Representative at least seven (7) days prior to start of seeding operations.
- D. Protect existing utilities, paving, and other facilities from damage caused by landscape work.
 - 1. Do not overload paving and curbs. Use planking, plywood, or other material approved by Owner's Representative as required for protection of paving and curbs.

1.8 SEQUENCING AND SCHEDULING

- A. Planting Time: Proceed with, and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.
- B. Restriction: Do not plant when ground is frozen, snow covered, or muddy.
 - 1. Do not install plants when temperatures drop below 35 degrees F or rise above 95 degrees F.
 - 2. Do not install plants when winds exceed 30 mph.
- C. Coordination with Lawns: Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to Owner's Representative. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.
- D. Correlate planting with specified maintenance periods to provide maintenance from date of substantial completion.
- E. Weather Limitations: Proceed with planting only when existing and forecast weather conditions are suitable for work.
- F. Inspect and approve all irrigation sprinkler work prior to start of shrub and groundcover planting. Trees will be planted in advance of irrigation system installation. Provide interim watering, as required.

1.9 WARRANTY

- A. Warranty lawns through specified lawn maintenance period, and until final acceptance.
- B. Warranty trees and shrubs for a period of one year after date of substantial completion against defects including death and unsatisfactory growth, except for defects resulting from neglect by Owner, abuse or damage by others, or unusual phenomena or incidents which are beyond Landscape Installer's control.
- C. Remove and replace trees, shrubs, or other plants found to be dead or in unhealthy condition during warranty period. Make replacements during growth season following end of warranty period. Replace trees and shrubs which are in doubtful condition at end of warranty period.

unless, in opinion of Owner's Representative, it is advisable to extend warranty period for a full growing season.

1. Plants are to be free of dead or dying branches and branch tips, and bear foliage of normal density, size and color.
2. Another warranty inspection will be conducted at the end of extended warranty period, if any, to determine acceptance or rejection. Only one replacement (per tree or shrub) will be required at end of warranty period, except for losses or replacements due to failure to comply with specified requirements.

1.10 ESTABLISHMENT AND MAINTENANCE PERIOD

- A. Service for all plant material and seeded areas: Provide establishment services by skilled employees of landscape Installer. Provide services as required in Part 3. Begin plant/seeding establishment services immediately after plants/seeding are installed and continue through establishment period, as defined below:
 1. Establishment Period: one (1) years from date of approved Completion of Planting/Seeding
 2. Provide hand watering, gator bags or other temporary irrigation systems to plants and seeded areas.
- B. Provide Maintenance Bond per Section 01740.

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. Per Section 329113 – Topsoil Placement

2.2 SOIL AMENDMENTS

- A. Lime: ASTM C 602, Class T, natural dolomitic limestone containing not less than 80 percent of total carbonates with a minimum of 30 percent magnesium carbonates, ground so that not less than 99 percent passes a No. 8 sieve and not less than 75 percent passes a No. 60 sieve.
- B. Bone Meal: Raw, finely ground, commercial grade, minimum of 3 percent nitrogen and 20 percent phosphorous.
- C. Cedar Grove Compost: Composted plant waste material free of stones, sticks, and weed seeds.
- D. Composted Wood Derivatives:
 1. Ground bark, sawdust, or other wood waste material free of stones, sticks, and soil stabilized with nitrogen having the following properties:
 - a. Particle Size: Minimum percent flyweight passing: No. 4 mesh screen 95% and No. 8 mesh screen 80%
 - b. Nitrogen Content: Minimum percent based on dry weight: Redwood Sawdust 0.5 Fir Sawdust 0.7 Fir or Pine Bark 1.0

- E. Commercial Fertilizer: Complete fertilizer of neutral character, with some elements derived from organic sources and containing following percentages of available plant nutrients:
 - 1. General: Approved brands meeting requirements of applicable State fertilizer laws. Uniform in composition and dry. Deliver to site in original un-opened containers, each bearing manufacturer's guaranteed analysis.
 - 2. Granular topdressing shall be Osomocote slow-release 14-14-14 fertilizer, applied at the rate recommended by the manufacturer.
 - 3. Tablet form fertilizer shall be 21 gram 20-10-5 slow-release tablets, applied at the rate recommended by the manufacturer.
 - 4. Controlled Release Fertilizer with Hydroseeding:
 - a. Nitrogen-phosphorus-potassium ratio of 16-7-12 plus 2 percent iron, composed of pills coated with plastic resin to provide continuous release of fertilizer for at least six months.

2.3 MULCHES

- A. Provide mulch free from noxious weeds, mold, and other deleterious materials.
- B. Fir and/or Hemlock bark, 1 inch minus size with less than 30% bark finer than ¼ inch in size.
- C. Cedar Grove Compost, fresh from supplier.
- D. Wood Cellulose Fiber:
 - 1. Use with hydraulic application of grass seed and fertilizer.
 - 2. Processed to contain no growth or germination-inhibiting factors, dyed green to facilitate visual metering of materials application.
 - 3. Composition on air-dry weight basis: 9 to 15 percent moisture, pH range from 3.5 to 5.0
 - 4. Fiber binding shall be applied at a net dry weight of 750 pounds per acre. Cellulose fiber may be mixed with water. Mixture shall contain maximum of 50 pounds of cellulose fiber per 100 gallons of water.

2.4 WATER

- A. Suitable quality for irrigation.

2.5 PLANT MATERIALS

- A. Quality: Provide trees, shrubs, and other plants of size, genus, species, and variety shown and scheduled for landscape work and complying with recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock".
- B. Deciduous Trees: Provide trees of height and caliper scheduled or shown and with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are shown or listed.
 - 1. Provide balled and burlapped (B&B) deciduous trees.
- C. Deciduous Shrubs: Provide shrubs of the height shown or listed and with not less than minimum number of canes required by ANSI Z60.1 for type and height of shrub required.

1. Provide balled and burlapped or container grown shrubs, ground cover.
- D. Coniferous and Broadleafed Evergreens: Provide evergreens of sizes shown or listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens and height for other types, such as globe, dwarf, cone, pyramidal, broad upright, and columnar. Provide normal quality evergreens with well-balanced form complying with requirements for other size relationships to the primary dimension shown.
 1. Provide balled and burlapped (B&B) evergreens.

2.6 GRASS MATERIALS

- A. Seed:
 1. Classification:
 - a. State certified of latest season's crop delivered in original sealed packages bearing producer's guaranteed analysis for percentages of mixtures, purity, germination, weed seed content, and inert material.
 - b. Label in conformance with applicable state seed laws.
 - c. Wet, moldy, or damaged seed will be rejected.
 2. Seed Cultivar: 80% (by weight) Perennial Rye, 20% (by weight) Chewings and Red Fescue Blend.
- B. All seed shall meet applicable state law.

2.7 MISCELLANEOUS LANDSCAPE MATERIALS

- A. Tree Root Barrier: Injection molded or extruded modular component made of high density polypropylene or polyethylene plastic with a minimum of 30 percent recycled materials. Panels must have a minimum thickness of 0.080 inches. Each panel must have a minimum of 4 molded vertical ribs and locking strips, integral male/female sliding locks, and an intergraded zipper joining system. Vertical root-deflecting ribs or channels must be between 1/2 inch and 0.008 inches high, perpendicular to the panel, and between 5.91 inches to 7.87 inches apart. Panels must be a minimum of 24" wide x 18" deep.
- B. Stakes and Guys: Provide hardwood stakes. Deadmen to be of sound softwood, , free of knot holes and other defects. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, not lighter than 12 ga. with zinc-coated turnbuckles. Provide not less than 1/2 inch diameter rubber or plastic hose, cut to required lengths and of uniform color, material, and size to protect tree trunks from damage by wires.
- C. Tree Watering Bags: Treegator bags, or approved equal, install per manufacturers recommendations.

PART 3 - PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive trees, plants, and lawns for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Planting Soil Preparation
 - 1. Limit subgrade preparation to areas that will be planted in the immediate future.
 - 2. Loosen sub-grade to a minimum depth of 4 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter.
 - 3. Mix soil amendments and fertilizers with topsoil at rates indicated. Delay mixing fertilizer if planting does not follow placing of planting soil within a few days. Either mix soil before spreading or apply soil amendments on surface of spread topsoil and mix thoroughly into top 6 inches of topsoil before planting.
- D. Tree Root Barriers:
 - 1. Install at locations indicated on plans per manufacturers recommendations.

3.3 PREPARATION FOR PLANTING LAWNS

- A. Loosen subgrade of lawn areas to a minimum depth of 4 inches. Remove stones measuring over 1-1/2 inches in any dimension. Remove sticks, roots, rubbish, and other extraneous matter. Limit preparation to areas which will be planted promptly after preparation.
 - 1. Spread top soil to minimum depth required to meet lines, grades, and elevations shown, after light rolling and natural settlement. Add specified soil amendments and mix thoroughly into upper 4 inches of topsoil.
- B. Preparation of Unchanged Grades: Where lawns are to be planted in areas that have not been altered or disturbed by excavating, grading, or stripping operations, prepare soil for lawn planting as follows: Till to a depth of not less than 12 inches. Apply soil amendments and initial fertilizers and mix thoroughly into top 6 inches of soil. Remove high areas and fill in depressions. Till soil to a homogeneous mixture of fine texture. Clean surface soil of lumps, clods, stones, roots and other extraneous matter. Remove waste material, including grass, vegetation, and turf, and legally dispose of it off the Owner's property.
 - 1. Prior to preparation of unchanged areas, remove existing grass, vegetation and turf. Dispose of such material outside of Owner's property. Do not turn existing vegetation over into soil being prepare for lawns.

2. Apply specified commercial fertilizer at rates of 1 lb. of actual nitrogen per 1,000 s.f. and thoroughly mix into upper 2 inches of topsoil. Delay application of fertilizer if lawn planting will not follow within a few days.
- C. Fine grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Roll, rake, and drag lawn areas, remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading. Remove stones larger than 1-1/2 inches in any dimension and other objects that may interfere with planting or maintenance operations.
- D. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.
- E. Restore lawn areas to specified condition, if eroded or otherwise disturbed, after fine grading and prior to planting.
- F. Hydroseeding:
 1. Mix seed, fertilizer, and wood cellulose fiber in required amount of water to product a homogeneous slurry. Add wood cellulose fiber after seed, water, and fertilizers have been thoroughly mixed and apply at the rate of 200 pounds per acre dry weight.
 2. Hydraulically spray material on ground to form a blotter-like cover impregnated uniformly with grass seed.
 3. Immediately following application of slurry mix, make separate application of wood cellulose mulch at the rate of 1,000 pounds, dry weight, per acre.
 4. Apply cover so that rainfall or applied water will percolate to underlying soil.
- G. Erosion Protection:
 1. Protect seeded slopes against erosion with erosion netting or other methods acceptable to the Owner's Representative.

3.4 EXCAVATION FOR TREES AND SHRUBS

- A. Excavate pits, beds, and trenches with vertical sides and with bottom of excavation slightly raised at center to provide proper drainage. Loosen hard subsoil in bottom of excavation.
 1. For balled and burlapped (B&B trees and shrubs), make excavations at least half again as wide as the ball diameter and equal to the ball depth, plus following allowance for setting of ball on a layer of compacted backfill:
 - a. Allow for 4-inch thick setting layer of planting soil mixture.
 2. For container grown stock, excavate as specified for balled and burlapped stock, adjusted to size of container width and depth.
- B. Dispose of subsoil removed from planting excavations. Do not mix with planting soil or use as backfill.
- C. Fill excavations for trees and shrubs with water and allow water to percolate out prior to planting.

3.5 PLANTING TREES AND SHRUBS

- A. Set balled and burlapped (B&B) or container stock on layer of compacted planting soil mixture, plumb and in center of pit or trench with top of ball at same elevation as adjacent finished landscape grades. Remove burlap from sides of balls; retain on bottoms. When set, place additional backfill around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.
- B. Set container grown stock, as specified, for balled burlapped stock, except cut cans on 2 sides with an approved can cutter; remove bottoms of wooden boxes after partial backfilling so as not to damage root balls.
- C. Dish top of backfill to allow for mulching.
- D. Mulch pits, trenches, and planted areas. Provide not less than following thickness of mulch, and work into top of backfill and finish level with adjacent finish grades.
 - 1. Provide 3 inches thickness of mulch.
- E. Preparation of Beds for Trees, Shrubs, and Perennials:
 - 1. Planting Bed Mixture: 50% topsoil, 50% Cedar Grove Compost. Thoroughly mix the bedding materials together prior to backfilling.
 - 2. Fertilization: Following placement of the bedding material mix, incorporate in the top 4" osmocote 18-6-12, slow release fertilizer at the rate of 10 pounds per 100 square feet of flower bed. Provide positive drainage for all flower beds. Following placement of plants, provide 2" of specified mulch.

3.6 FINISHING

- A. Edging: When Mechanical edging is not specified, uniformly edge beds of individual plants with a 3-inch to 4-inch deep "Vee" cut to provide a clear division line between planted areas and adjacent lawn. Form bed shapes as indicated. Mulch to bottom edge of cut.
- B. Staking and Guying:
 - 1. Deadmen: Stake, guy and place deadmen for plantings as indicated.
 - 2. Chafing Guards: Hold plants firmly between stakes with double-strand of 12-gauge guying wire. Use hose chafing guards, where wire will contact the plant. (Provide turnbuckles as indicated).
 - 3. Stakes: Drive vertically into ground 3 feet deep outside of plant balls. Do not injure ball or roots.
 - 4. Ground Stakes: Drive into firm ground outside of plant pit with top of stakes flush with ground.
 - 5. Deadmen: Place minimum 18 inches below ground surface.
 - 6. Iron Anchors: Drive minimum 30 inches below ground surface.
 - 7. Steel Anchors: Insert steel screw anchors as recommended in manufacturer's data.
 - 8. Flags: Securely fasten flags on each guy wire approximately two-thirds of the distance up from ground level.
- C. Pruning: NAA DSST; prune in accordance with safety requirements of ANSI Z133.1.

1. Trees and Shrubs: Remove dead and broken branches. Prune deciduous trees and shrubs to reduce total amount of branching structure by maximum one-third. Retain typical grown habit of individual plant with as much height and spread as is practical. Make cuts with sharp instruments flush with trunk or adjacent branch, above node.
2. Wound Dressing: Apply tree wound dressing to cuts 1/2 inch in diameter and larger immediately after pruning.

3.7 APPLICATION OF PESTICIDES

- A. Apply pesticides and herbicides when considered necessary by the Owner to control weeds, undesirable grasses, and insects at any time during the establishment period.
- B. Hydraulic Application:
 1. Hydraulic equipment for liquid application of chemicals shall have leakproof tanks and positive agitation method, with gauges and valves capable of maintaining constant application pressures.
 2. Calibrate and meter equipment so that application of chemicals in specified amounts can be determined.
- C. Restrictions:
 1. Apply herbicides and other chemicals in accordance with EPA label restrictions and recommendations and federal and state laws.
 2. Make daily reports stating areas treated with each chemical, quantity applied, and spray mixture of formulation used.
 3. Apply at each location under supervision of a certified applicator.
- D. Safety and Protective Measures:
 1. Apply in well ventilated areas. Avoid inhalation, injection, or spilling on clothing or skin.
 2. Wear protective clothing in accordance with manufacturer's material safety data sheet recommendations.
 3. Personnel shall not be exposed to pesticides exceeding the exposure levels recommended in the most stringent of the following: (OSHA), 29 Code of Federal Regulations 1910.1000-SUBPART Z, or the manufacturer's material safety data sheet.
 4. If excessive exposures are unavoidable, use respirators approved by the National Institute for Occupational Safety and Health for protection from pesticides, fumigants, herbicides and fungicides.
 5. Conform to the selection and usage guidelines in ANSI Z88.2.

3.8 ESTABLISHMENT AND MAINTENANCE PERIOD

- A. Commencement and Duration
 1. Plant, lawn and grass establishment and maintenance period shall commence on the date that inspection by the Owner shows that all new plants/seeding furnished under this contract have been satisfactorily installed and shall continue for a period of one year.
- B. Maintenance During Lawn and Grass Establishment Period:
 1. Mow lawns and grassed areas to an average height of 2”.

2. Water, by hand/truck, daily to maintain adequate surface soil moisture for proper germination. Continue daily watering for not less than 30 days. Thereafter, apply 1/2" water twice weekly until acceptance.
3. Promotion of growth: Remove excess clippings, eradicate weeds, fertilize, overseed, and perform other operations necessary to promote growth.
4. Apply pesticides and herbicides to control apparent evidence of insect, weeds, or undesirable grasses in accordance with requirements herein.
5. Post-fertilize areas with a controlled release fertilizer at manufacturer's recommended rates.

C. Maintenance During Plant Establishment Period:

1. Promote Plant Growth: Prune, mulch, re-guy, re-wrap and perform other operations necessary to promote plant growth including hand/truck watering and installation and replenishing of tree watering bags. Inspect plants at least once a week during installation period and perform needed maintenance promptly.
2. Fertilizing Plants: At least once during the plant establishment period between the dates of March 1 and October 1. Prior to final inspection, fertilize all plants by topdressing with a granular form controlled release fertilizer at the manufacturer's recommended rate.
3. Remove Dead Plants: Remove and replace dead plants immediately and replace stakes, guys, wraps, and eroded plant saucers required. A limit of one replacement of each tree and shrub will be required, except for losses or replacements due to failure to comply with requirements.
4. Apply pesticides as required for apparent evidence of insects in accordance with requirements herein.
5. Tracking Unhealthy Plants: Plants not in healthy growing condition, as determined by the Owner's Representative, will be noted and removed as soon as seasonal conditions permit and replaced with plants of the same species and sizes as originally specified. Make replacements in same manner as specified for original plantings.

3.9 FINAL ACCEPTANCE

- A. When landscape work is completed, including maintenance, the Owner's Representative will, upon request, make an inspection to determine acceptability.
- B. When inspected landscape work does not comply with requirements, replace rejected work and continue specified maintenance until re-inspected by Owner's Representative and found to be acceptable. Remove rejected plants and materials promptly from project site.
- C. Seeded lawns will be satisfactory provided requirements, including maintenance, have been met and healthy, well-rooted, even-colored, viable lawn is established, free of weeds, open joints, bare areas, and surface irregularities.

3.10 CLEANUP AND PROTECTION

- A. During landscape work, keep pavements clean and work area in an orderly condition.
- B. Protect landscape work and materials from damage due to landscape operations, operations by other contractors and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed.

- C. In areas near pedestrian walkways, restrict traffic from lawn areas until grass is established. Erect signs and barriers with 1-1/2" x 1-1/2" x 36" (above grade) wood stakes with two rows of strings.
- D. Contractor to maintain and then remove staking and guying materials one year after date of substantial completion.

END OF SECTION 329300