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*City of Chehalis*  
*Public Works Department*

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**CONTRACT DOCUMENTS  
FOR**

**Riverside Road Forcemain Replacement  
Project**

**City of Chehalis  
Public Works Department**  
350 N. Market Blvd.  
Chehalis, WA 98532

Prepared by:  
Gibbs & Olson, Inc.  
1115 West Bay Drive NW, Suite 201  
Olympia, WA 98502  
Phone (360) 352-1120

**Bid Set - March 2019**

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**CITY OF CHEHALIS**  
**RIVERSIDE ROAD FORCEMAIN REPLACEMENT PROJECT**  
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# INVITATION TO BID

## City of Chehalis Riverside Road Forcemain Replacement Project

Sealed proposals for furnishing all materials, labor and equipment for the following described work will be received by the City Clerk of the City of Chehalis, 350 North Market Blvd. Rm 101, Chehalis, WA 98532, up until 1:30 p.m. April 30, 2019. At this time, the sealed bids will be publicly opened and read aloud. A contract will be awarded or all bids rejected within 45 days after the bid opening. The City reserves the right to extend the period of bid consideration subject to the ability of a bidder to withdraw its bid if such an extension is implemented by the City. Bid proposals must be submitted in a sealed opaque envelope clearly marked with the project title and name and address of the bidder. Proposals received after 1:30 p.m. April 30, 2019 will not be considered.

### PROJECT DESCRIPTION:

The work consists of construction of approximately 2450 linear feet of sewer piping that connects the Riverside Road Sewer Pump Station to an existing valve near NW Shoreline Drive. A combination of HDPE and ductile iron pipe will be used. Approximately 2,314 linear feet of HDPE pipe and 136 linear feet of ductile iron pipe for a bridge crossing is required. Also included is a boring and casing beneath State Route 6 and two air release assemblies.

Bidding documents may be obtained at no cost in pdf format only, from SolicitBid at <https://solicitbid.com/Posts/Projects.aspx>. Contact SolicitBid at (206) 219-6481 if unable to access the documents on-line. A Plan Holders list is also on the SolicitBid website. Bidding documents may also be found on the City's website at [ci.chehalis.wa.us](http://ci.chehalis.wa.us).

It is the sole responsibility of each Bidder to learn of Addendum, if any. Such information may be obtained from the SolicitBid website. Bidders are encouraged to "Register as Bidder" in order to receive automatic email notification of future addenda and be placed on the "Bidders List". The City of Chehalis accepts no responsibility or liability and will provide no accommodation to Bidders who fail to check for addendums and submit inadequate or incorrect responses.

All bidders are required to use the forms furnished by the City and to bid each item in the manner shown on the bid form.

Upon award of the contract, a performance and payment bond meeting the requirements of the "Instructions to Bidders" will be required. Progress payments will be made in accordance with the "General Conditions." The contract is subject to state "Prevailing Wages" and Retainage (5%) will be held until releases are received from the Dept. of Labor & Industries and the Dept. of Revenue.

Bids must be sealed with the outside of the envelope boldly marked to indicate that it contains a sealed bid, the bid opening date, and the specific project involved.

Any technical questions regarding the contract documents should be directed to the City's consulting engineer, Gibbs & Olson, Inc., attention Mike Marshall at (360) 352-1120 or [mmarshall@gibbs-olson.com](mailto:mmarshall@gibbs-olson.com).

A pre-bid conference will be held for all prospective bidders on April 10th at 1:30 p.m., at the Chehalis Treatment Plant located at 420 Louisiana Avenue in Chehalis. A site tour is included. Attendance is encouraged but not required to submit a bid.

All work performed on this project will be subject to the prevailing wage rates.

All Proposals must be submitted on the regular form furnished with the specifications, and each must be accompanied by a cashier's check, postal money order or surety bond, by a bonding company licensed to do business in the State of Washington, made payable to the City of Chehalis in an amount not less than five percent (5%) of the total bid.

No Bidder may withdraw their proposal after the time set for the opening thereof, or before award of contract, unless said award is delayed for a period exceeding 45 days. The City reserves the right to award the bid to the lowest responsible Bidder, waive informalities, or reject any or all bids.

The City of Chehalis hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation, and will not be discriminated against on the grounds of age, race, creed, color, sex, national origin, sexual orientation, marital status, or the presence of any physical, mental, or sensory disability in consideration for an award. The City of Chehalis encourages contracting procedures which provide MWBE's equal opportunity to participate as subcontractors on City contracts.

All contracts with a value of  $\geq$  \$1,000 shall require that the awarded contractor register with the Department of Homeland Security E-Verify program. Contractors shall have 30 calendar days after the execution of the contract to register and enter into a Memorandum of Understanding (MOU) with the Department of Homeland Security (DHS) E-Verify program. After completing the MOU the contractor shall have up to 90 calendar days to begin using E-Verify and provide a written record on the authorized employment status of their employees and those of any sub-contractor(s) currently assigned to the contract.

The City of Chehalis reserves the right or to accept that Bid which appears to serve the best interests of the City of Chehalis.

By \_\_\_\_\_  
Caryn Foley, Clerk  
City of Chehalis

**PUBLISH DATES:**

The Chronicle: April 4 and April 18, 2019

Seattle Daily Journal of Commerce: April 3 and April 17, 2019

Portland Daily Journal of Commerce: April 3 and April 17, 2019

**PART I**

**INSTRUCTIONS TO BIDDERS**

# INSTRUCTIONS TO BIDDERS

## 1. DEFINED TERMS

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

- 1.1 Bidder - one who submits a Bid directly to Owner as distinct from a sub-bidder, who submits a bid to a Bidder.
- 1.2 Issuing Office - the office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- 1.3 Successful Bidder - the lowest, best, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

## 2. COPIES OF BIDDING DOCUMENTS

- 2.1 Complete sets of the Bidding Documents stated in the Advertisement of Invitation to Bid may be obtained from the Issuing Office.
- 2.2 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of complete sets or incomplete sets of Bidding Documents.

## 3. QUALIFICATIONS OF BIDDERS

To aid the Owner in determining the qualifications of a Bidder to perform the work, each Bidder must be prepared to submit to the Owner within five days after bid opening such written evidence, including but not limited to financial data, previous experience, and present commitments as may be reasonably requested by the Owner or as called for in the bid form. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

## 4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.1 It is the responsibility of each Bidder before submitting a Bid:
  - 4.1.1. To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents (including "technical data" referred to below);



- 4.1.2. To visit the site to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance or furnishings of the Work;
- 4.1.3. To consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishings of the Work;
- 4.1.4. To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data; and
- 4.1.5. To promptly notify Engineer of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered whether it be in or between the Contract Documents and such other related documents or simply within one document.
- 4.2 Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities or others, and Owner and Engineer do not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 4.3 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Contract Documents due to differing or unanticipated conditions appear in Paragraphs 4.2 and 4.3 of the General Conditions.
- 4.4 Before submitting a Bid each Bidder will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 4.5 On request, Owner will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests and studies as each Bidder deems necessary for submission of a Bid. Bidder must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, test and studies.
- 4.6 Reference is made to the Supplementary Conditions for the identification of the general nature of work that is to be performed at the site by Owner or others (such as utilities and other prime contractors) that relates to the work for which a Bid is to be submitted. On request, Owner will provide to each Bidder for

examination access to or copies of Contract Documents (other than portions thereof related to price) for such work.

- 4.7 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Contract Documents and the written resolutions thereof by Engineer is acceptable to Bidder, and that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
- 4.8 The provisions of I-4.1 through 4.8, inclusive, do not apply to Asbestos, Polychlorinated biphenyls (PCBs), Petroleum, Hazardous Waste or Radioactive Material covered by Paragraph 4.5 of the General Conditions.

5. AVAILABILITY OF LANDS FOR WORK, ETC.

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 Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

6. INTERPRETATIONS AND ADDENDA

- 6.1 All questions about the meaning or intent of the Bidding Documents are to be directed to Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

7. BID SECURITY

- 7.1 Each Bid must be accompanied by Bid security made payable to Owner in an amount of five percent of Bidder's maximum Bid price and in the form of a

cashier's check or a Bid Bond issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions.

- 7.2 The Bid security of Successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within fifteen days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of the lowest five responsible and responsive Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the Effective Date of the Agreement or the thirty-first day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security of other Bidders will be returned within seven days after Bid opening.

8. CONTRACT TIMES

The number of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the term "Contract Times" is defined in paragraph 1.12 of the General Conditions) are set forth in the Agreement and are also shown on the Bid Form.

9. LIQUIDATED DAMAGES

Provisions for liquidated damages, if any, are set forth in the Agreement.

10. SUBSTITUTE AND "OR-EQUAL" ITEMS

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Engineer is set forth in Paragraphs 6.7.1, 6.7.2 and 6.7.3 of the General Conditions.

11. SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 11.1 The "Subcontractor Listing" page of these bid documents must be completed and submitted either with the Bid or within one-hour of the date and time of Bid submittal, to be considered a responsive Bid. When the total contract amount is expected to cost one million dollars or more, the specific requirements in RCW 39.30.060 shall apply.

If apparent Successful Bidder declines to make any such substitution, Owner may award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The

declining to make requested substitutions will not constitute grounds for forfeiting the Bid security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.8.2 of the General Conditions.

11.2 The Bid and ultimate contract is required to meet the prevailing wage requirements set forth in Supplementary Condition SC-6.14.1.

11.3 No Contractor shall be required to employ any Subcontractor, Supplier, other person or organization against whom Contractor has reasonable objection.

## 12. BID FORM

12.1 The Bid Form is included with the Bidding Documents; additional copies may be obtained from the Issuing Office.

12.2 All blanks on the Bid Form must be completed by printing in ink or by typewriter.

12.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown on the document.

12.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

12.5 All names must be typed or printed in ink below the signature.

12.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

12.7 The address and telephone number for communications regarding the Bid must be shown.

12.8 Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided in accordance with Paragraph 3 above. State contractor license number, if any, must also be shown.

## 13. SUBMISSION OF BIDS

Bid shall be submitted at the time and place indicated in the Advertisement of Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title and name and address of Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system the

sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

14. MODIFICATION AND WITHDRAWAL OF BIDS

14.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

14.2 If, within twenty-four hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

15. OPENING OF BIDS

Bids will be opened and (unless obviously non-responsive) read aloud publicly at the place where Bids are to be submitted. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to Bidders after the opening of Bids.

16. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

All Bids will remain subject to acceptance for forty-five (45) days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date.

17. AWARD OF CONTRACT

17.1 Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced or conditional Bids and to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Owner also reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

17.2 In evaluating Bids, Owner will consider the qualifications of Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

17.3 Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of

the Work as to which the identity of Subcontractor, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

17.4 Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

17.5 If the contract is to be awarded, it will be awarded to lowest, best and responsible Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

17.6 If the contract is to be awarded, Owner will give Successful Bidder a Notice of Award within forty-five (45) days after the day of the Bid opening.

18. CONTRACT SECURITY

Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to performance and payment Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required performance and payment Bonds.

19. SIGNING OF AGREEMENT

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen days thereafter Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds. Within ten days thereafter Owner shall deliver one fully signed counterpart to Contractor. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

20. PRE-BID CONFERENCE

A pre-bid conference will be held only if specified in the Invitation to Bid. Representatives of Owner and Engineer will be present to discuss the Project. Access to some project areas is limited and therefore Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

21. RETAINAGE

Provisions concerning retainage and Contractors' rights to deposit securities in lieu of retainage are set forth in the Agreement.

22. LUMP SUM AND UNIT PRICE

22.1 Lump sum prices shall include all materials, labor, services, equipment and all work necessary to complete the project in accordance with the plans and specifications which are not included in unit price items. If an increase is required in the work covered by a lump sum price, it shall be computed on the basis of "extra work" for which an increase in payment will have been earned, and if there should be a decrease in the lump sum payment, it shall be only as a result of negotiation between the Contractor and the Owner.

22.2 Unit prices, if applicable, shall include all labor, materials, equipment, shoring, pumping, overhead, profit, insurance, etc., needed to complete the finished work called for.

22.3 It is understood that any estimate with respect to time, materials, equipment, or services which may appear on the plans or in the specifications is for the sole purpose of assisting the Contractor in checking his own independent calculations, and at no time shall the undersigned attempt to hold the Owner or the Engineer responsible for any errors or omissions that may appear in any estimate.

22.4 In accordance with Excise Tax Bulletin Rule 171, the Contractor shall include any applicable Contractor paid Washington State retail sales taxes in the line indicated in the proposal form.

23. MATERIALS DELIVERY

All materials shall be delivered or invoiced to the Contractor or Subcontractor F.O.B. Chehalis, Washington.

24. PERMITS

Contractor shall secure a Right-of-Way permit from the City at his cost.

The Owner has secured the WSDOT permit to cross Route 6. Contractor to meet the permit conditions at no additional cost (see Appendix A for Permit No. U2106).

25. WARRANTY

Contractor shall comply with the warranties identified in the Supplementary Conditions of the Contract Documents.

26. PREVAILING WAGES

All work performed on this project will be subject to the prevailing state wage rates.

The Contractor will be required to provide a completed Notice of Intent to Pay Prevailing Wages at the start of the project and a completed Affidavit of Wages Paid at the completion of the project. Submission by the Contractor of the completed Affidavit of Wages Paid will be required prior to release of retainage by the Owner.

27. COMPLIANCE WITH STATE AND LOCAL LAWS

The Contractor shall assure compliance with all applicable federal, state, and local laws, requirements, and ordinances as they pertain to the design, implementation, and administration of the approved project.

28. PROTECTION OF THE ENVIRONMENT

No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

29. INADVERTENT DISCOVERY OF ARCHEOLOGICAL RESOURCES

The contractor shall obtain a copy of the Inadvertent Discovery Plan from the Project Owner. The contractor shall keep a copy of the inadvertent discovery plan for the project on the work site at all times. The contractor shall immediately stop all work if human remains, cultural, or archeological resources are discovered in the course of construction. The contractor shall follow the inadvertent discovery plan in dealing with the human remains, cultural, or archeological resources. See Appendix C.

30. CONTRACTOR TRAINING

Beginning July 1, 2019, businesses not listed on the WA State Department of Labor & Industries "*Public Works Training Exemption List*" are required to have training before submitting a bid and/or performing work on public works projects. Awarding agencies are required to verify all contractors submitting bids meet this new requirement before awarding the contract. Businesses that have been in business with an active Unified Business Identifier (UBI) number for three (3) or more years, AND have performed work on three (3) or more public works projects, are exempt from these training requirements.

Training options are available at

<https://www.lni.wa.gov/TradesLicensing/PrevWage/Contractors/Training.asp>.



**PART II**  
**BID PACKAGE**

# BID FORM

Project Identification:

City of Chehalis  
Riverside Road Forcemain Replacement Project

THIS BID IS SUBMITTED TO:

City of Chehalis  
350 North Market Blvd.  
Chehalis, WA 98532

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for thirty days after the day of Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within fifteen days after the date of OWNER'S Notice of Award.
3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
  - (a) BIDDER has examined and carefully studied the Bidding Documents and the following Addenda receipt of all which is hereby acknowledged: (List Addenda by Addendum Number and Date)  
  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_
  - (b) BIDDER has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work;
  - (c) BIDDER is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
  - (d) BIDDER has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the

site (except Underground Facilities) which have been identified in the Supplementary Conditions. BIDDER accepts the determination set forth in paragraph SC-4.2 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which BIDDER is entitled to rely as provided in paragraph 4.2 of the General Conditions. BIDDER acknowledges that such reports and drawings are not Contract Documents and may not be complete for BIDDER's purposes. BIDDER acknowledges that OWNER and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.

- (e) BIDDER is aware of the general nature of Work to be performed by the Owner or others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- (f) BIDDER has correlated the information known to BIDDER, information and observation obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- (g) BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- (h) **NON-COLLUSION AFFIDAVIT**  
This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, associated, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

4. BIDDER will complete the Work in accordance with the Contract Documents for the following unit price not including sales tax per the General Conditions, paragraph 11.9.1.

The bidder shall bid on all of the Bid Items. Failure to bid on any Bid Items will qualify the bid as non-responsive. Award shall be based on the lowest responsive responsible bid.

Item	Description	Quantity	Unit	Unit Price	Amount
1	Miscellaneous Construction	1	Force Account	\$30,000.00	\$30,000.00
2	Mobilization	1	L.S.		
3	Temporary Traffic Control	1	L.S.		
4	Flaggers and Spotters	100	Hour		
5	CSTC	150	Ton		
6	Sawcutting	1000	L.F.		
7	Trench Excavation	2000	C.Y.		
8	Imported Trench Backfill	1300	Ton		
9	Native Soil Trench Backfill	800	C.Y.		
10	HMA Class ½ inch – PG58H-22	230	Ton		
11	Controlled Density Fill	20	C.Y.		
12	Concrete Curb & Gutter incl. demo	600	L.F.		
13	Concrete Driveway incl. demo	100	S.Y.		
14	14" HDPE SDR 11 Pipe & Fittings	2314	L.F.		
15	Tunneling and Steel Casing	170	L.F.		
16	12" DIP for Bridge Crossing	136	L.F.		
17	Locator Box	6	Each		
18	Locator Post	6	Each		
19	Air/Vacuum Valve Assembly incl. demo	2	Each		
20	Isolation Valve	2	Each		
21	Hydroseeding	1000	S.Y.		
22	Trench Safety Systems	1	L.S.		

SUBTOTAL	\$ _____
SALES TAX @ 8.2%	\$ _____
TOTAL	\$ _____

Unit Prices have been computed in accordance with paragraph 11.03 of the General Conditions.

BIDDER acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.

5. BIDDER agrees that the Work will be substantially complete within **ninety (90) calendar days** after the date when the Contract Times commences to run as provided in paragraph 2.03 of the General Conditions. All work shall be completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within **one hundred ten (110) calendar days**.

BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

6. The following documents are attached to and made a condition of this Bid:
- (a) Required Bid Security in the form of a certified or bank check or a Bid Bond made payable to the Owner.
  - (b) A tabulation of Subcontractors, Suppliers and other persons and organizations required to be identified in the Bid.

7. Communications concerning this Bid shall be addressed to the BIDDER's representative at the following address:

Bidder's Representative \_\_\_\_\_  
 Company Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 Telephone \_\_\_\_\_

8. Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings indicated in the General Conditions or Instructions.

SUBMITTED on \_\_\_\_\_, 20\_\_\_\_\_  
 State Contractor License No. \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_

If BIDDER is:



A Corporation

By \_\_\_\_\_  
(Corporation Name)

Business address: \_\_\_\_\_  
(State of incorporation)

By \_\_\_\_\_  
(Person authorized to sign) Print Name      Signature

Attest \_\_\_\_\_  
(Secretary) Print Name      Signature

Business Address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Date of Qualification to do business is \_\_\_\_\_

A Joint Venture

By \_\_\_\_\_ (SEAL)  
Signature

\_\_\_\_\_  
(Address)

By \_\_\_\_\_ (SEAL)  
Signature

\_\_\_\_\_  
(Address)

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

# BID BOND

PENAL SUM FORM

**BIDDER** (Name and Address):

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**SURETY** (Name and Address of Principal Place of Business):

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**OWNER** (Name and Address):

---

---

**BID**

BID DUE DATE:

PROJECT (Brief Description Including Location):

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---

**BOND**

BOND NUMBER: \_\_\_\_\_

DATE: (Not later than Bid Due Date): \_\_\_\_\_

PENAL SUM: \_\_\_\_\_

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

\_\_\_\_\_  
Bidder's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature and Title

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

Attest: \_\_\_\_\_  
Signature and Title

Attest : \_\_\_\_\_  
Signature and Title

Note: (1) Above addresses are to be used for giving required notice.  
(2) Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable



1. Bidder and Surety, jointly and severally, bind them-selves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents.
3. This obligation shall be null and void if:
  - 3.1 Owner accepts Bidder's bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents, or
  - 3.2 All bids are rejected by Owner, or
  - 3.3 Owner fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by Owner and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 120 days from Bid Due Date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety, and in no case later than one year after Bid Due Date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the project is located.
8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of the Bond conflicts with any applicable provision of any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "bid" as used herein includes a bid, offer or proposal as applicable.

**DECLARATION OF OPTION FOR INVESTMENT OF RETAINED PERCENTAGE**

- A. I hereby elect to have the retained percentage of this contract held in a fund by the Owner until thirty (30) days following final acceptance of the work.

Signed \_\_\_\_\_

Date \_\_\_\_\_

- B. I hereby elect to have the Owner invest the retained percentage of this contract from time to time as such retained percentage accrues and in accordance with RCW 60.28.010, .020, and .050.

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 Owner shall not be liable in any way for any costs or fees in connection therewith.

Signed \_\_\_\_\_

Date \_\_\_\_\_



## BIDDER'S CHECKLIST

This checklist has been prepared and furnished to aid Bidders in including all necessary supporting information with their bid. Bidders' submittals should include, but are not limited to, the following:

<u>Item</u>	<u>Checked</u>
1. Proposal (Bid)	_____
2. Bidder's Bond or Other Security	_____
3. Power-of-Attorney for Surety's Agent to execute Bidder's bond	_____
4. Authority to sign Proposal if Signature is by Agent Other Than Officer of Corporation, Partner, or Owner	_____
5. Acknowledgement of Addenda (in Proposal)	_____
6. Acknowledgement of Addenda (on each Addendum)	_____
7. Declaration of Option for Investment	_____
8. Subcontractor Listing	_____

**PART III**  
**FORMS FOR AWARDING**  
**AND**  
**SIGNING OF CONTRACT**

NOTICE OF AWARD

Dated \_\_\_\_\_

TO: \_\_\_\_\_  
(BIDDER)

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PROJECT: City of Chehalis – Riverside Road Forcemain Replacement Project

OWNER's CONTRACT NO. \_\_\_\_\_

CONTRACT FOR: City of Chehalis – Riverside Road Forcemain Replacement Project

You are notified that your Bid dated \_\_\_\_\_, 2019 for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for \_\_\_\_\_  
\_\_\_\_\_

(Indicate total Work, alternates or sections or Work awarded)

The Contract Price of your contract is \_\_\_\_\_ (\$ \_\_\_\_\_).

Three (3) copies of each of the proposed Contract Documents accompany this Notice of Award.

You must comply with the following conditions precedent within fifteen days of the date of this Notice of Award, that is by \_\_\_\_\_, 2019:

1. You must deliver to the OWNER three (3) fully executed counterparts of the Agreement including all the Contract Documents.
2. You must deliver with the executed Agreement, the Contract Security (Bonds) as specified in the Instructions to Bidders (paragraph 18), General Conditions (paragraph 5.1) and Supplementary Conditions (paragraph SC-5.1).

3. (List other conditions precedents).

a. \_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid in default, to annul this Notice of Award and to declare your Bid Security forfeited.

Within ten days after you comply with the above conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

\_\_\_\_\_  
City of Chehalis  
(OWNER)

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(TITLE)

ACCEPTANCE OF AWARD

\_\_\_\_\_  
(CONTRACTOR)

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(DATE)

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: That \_\_\_\_\_,  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_,  
(Corporation, Partnership, or Individual)

hereinafter called Principal, and \_\_\_\_\_,  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto City of Chehalis, hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) in lawful money of the United States, 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 whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

City of Chehalis – Riverside Road Forcemain Replacement Project

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED FURTHER that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.



PERFORMANCE BOND - PAGE 2 OF 2

PROVIDED FURTHER that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF this instrument is executed in six (6) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_  
(Address)

ATTEST:

\_\_\_\_\_  
(Surety) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Principal

By \_\_\_\_\_

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Surety

By \_\_\_\_\_

Attorney-in-Fact

\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

IMPORTANT: Surety Companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That \_\_\_\_\_,  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_,  
(Corporation, Partnership, or Individual)

hereinafter called Principal, and \_\_\_\_\_,  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto **City of Chehalis** hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) in lawful money of the United States, 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 whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

City of Chehalis – Riverside Road Forcemain Replacement Project

NOW, THEREFORE, if the Principal shall promptly make payments to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED FURTHER that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED FURTHER that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, who claim may be unsatisfied.

PAYMENT BOND - PAGE 2 OF 2

IN WITNESS WHERE this instrument is executed in six (6) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
(Principal) Secretary

By \_\_\_\_\_(S)

(SEAL)

\_\_\_\_\_  
(Witness as to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
Surety

ATTEST:

\_\_\_\_\_  
(Surety) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Surety

By \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

**IMPORTANT:** Surety Companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

# AGREEMENT

**THIS AGREEMENT** is dated as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_ by and between the City of Chehalis, Washington (hereinafter called OWNER) and \_\_\_\_\_ (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

## **Article 1. WORK.**

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

The work consists of construction of approximately 2450 linear feet of sewer piping that connects the Riverside Road Sewer Pump Station to an existing valve near NW Shoreline Drive. A combination of HDPE and ductile iron pipe will be used. Approximately 2,314 linear feet of HDPE pipe and 136 linear feet of ductile iron pipe for a bridge crossing is required. Also included is a boring and casing beneath State Route 6 and two air release assemblies.

## **Article 2. ENGINEER.**

The Project has been designed by Gibbs & Olson, Inc., 1115 West Bay Drive NW, Suite 201, Olympia, Washington 98502, telephone number 360.352.1120 which is hereafter called ENGINEER and which is to act as OWNER's representative, assume all duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

## **Article 3. CONTRACT TIMES.**

3.1 BIDDER agrees that the Work will be substantially complete within **ninety (90) calendar days** after the date when the Contract Times commences to run as provided in paragraph 2.3 of the General Conditions. All work shall be completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions within **one hundred ten (110) calendar days**.

3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER THREE HUNDRED DOLLARS (\$200.00) for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER ONE HUNDRED DOLLARS (\$100.00) for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

## **Article 4. CONTRACT PRICE.**

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraphs 4.1 and 4.2 below:

4.1 for all Work other than Unit Price Work, a Lump Sum of:

          N/A                  (\$ N/A)

All specific cash allowances are included in the above price and have been computed in accordance with paragraph 11.8 of the General Conditions:

plus

4.2 for all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in this paragraph 4.2:

Item	Description	Quantity	Unit	Unit Price	Amount
1	Miscellaneous Construction	1	Force Account	\$10,000.00	\$10,000.00
2	Mobilization	1	L.S.		
3	Temporary Traffic Control	1	L.S.		
4	Flaggers and Spotters	100	Hour		
5	CSTC	150	Ton		
6	Sawcutting	1000	L.F.		
7	Trench Excavation	2000	C.Y.		
8	Imported Trench Backfill	1300	Ton		
9	Native Soil Trench Backfill	800	C.Y.		
10	HMA Class ½ inch – PG64-22	230	Ton		
11	Controlled Density Fill	20	C.Y.		
12	Concrete Curb & Gutter incl. demo	600	L.F.		
13	Concrete Driveway incl. demo	100	S.Y.		

14	14" HDPE SDR 11 Pipe & Fittings	2314	L.F.		
15	Tunneling and Steel Casing	170	L.F.		
16	12" DIP for Bridge Crossing	136	L.F.		
17	Locator Box	6	Each		
18	Locator Post	6	Each		
19	Air/Vacuum Valve Assembly incl. demo	2	Each		
20	Isolation Valve	2	Each		
21	Hydroseeding	1000	S.Y.		
22	Trench Safety Systems	1	L.S.		

SUBTOTAL \$ \_\_\_\_\_  
SALES TAX @ 8.2% \$ \_\_\_\_\_  
TOTAL \$ \_\_\_\_\_

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## **Article 5. PAYMENT PROCEDURES.**

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1 Progress Payments; Retainage. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, as provided in paragraphs 5.1.1. and 5.1.2. below. Progress payments shall be submitted not more than once each month and shall be submitted at least 10 days prior to the scheduled City Council Meetings or on the date agreed to by the OWNER and CONTRACTOR. All such payments will be measured by the schedule of values established in paragraph 2.9 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

5.1.1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.

- 90% (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.2 of the General Conditions).

5.1.2. Upon Substantial Completion, in an amount sufficient to increase total payments to CONTRACTOR to 95% of the Contract Price or the maximum amount allowed to be released pursuant to applicable State law whichever is less (with the balance being retainage), less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.

5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

## **Article 6. INTEREST.**

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate indicated in the Supplementary Conditions.

## **Article 7. CONTRACTOR'S REPRESENTATIONS.**

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

7.1 CONTRACTOR has examined and carefully studied the Contract Documents (including the Addenda listed in paragraph 8) and the other related data identified in the Bidding Documents including "technical data."

7.2 CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

7.3 CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

7.4 CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2.1 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph SC-4.2 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in paragraph 4.2 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, test, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.

7.5 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.

7.6 CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

7.7 CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## **Article 8. CONTRACT DOCUMENTS.**

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement (pages III-7 to III-13, inclusive).
- 8.2 Exhibits to this Agreement and Notice of Award (pages III-1 to III-2, inclusive).
- 8.3 Performance, Payment, and other Bonds, and consisting of 4 pages.
- 8.4 Notice to Proceed.
- 8.5 General Conditions (pages 1 to 45 , inclusive).
- 8.6 Supplementary Conditions (pages SC-1 to SC-9, inclusive).
- 8.7 General Requirements (Division 1, 2 and 15).
- 8.8 Drawings consisting of sheet numbers 1 through 8 inclusive.
- 8.8 Addenda numbers \_\_\_ to \_\_\_, inclusive.
- 8.9 CONTRACTOR's Bid (pages II-1 to II-VI, inclusive).
- 8.10 Documentation submitted by CONTRACTOR prior to Notice of Award



8.11 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions.

8.13 Standard Specifications for Road, Bridge and Municipal Constructions, prepared by Washington State Department of Transportation and the Washington State Chapter American Public Works Association, 2016 Edition, and the APWA Supplement together with any amendments, additions, alterations or corrections thereof, to the extent these Standard Specifications are expressly referred to elsewhere in the Contract Documents. Standard Specifications are available by contacting WSDOT or can be downloaded at <http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm>.

The documents listed in paragraphs 8.2 et seq. above are attached to the Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

#### **Article 9. MISCELLANEOUS.**

9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

9.2 Parties agree a prohibition exists without prior consent of any assignment of rights under this contract being made by the Contractor; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the Contractor from any duty or responsibility under the Contract Documents.

9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

9.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.5 It is further provided that no liability shall attach to the OWNER by reason of entering into this agreement, except as expressly provided herein.

9.6 The Contractor shall defend, indemnify, and hold the OWNER, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses, or suits, including attorneys' fees, arising out of or in connection with the performance of this Agreement, except for injuries and damages caused by the sole negligence of the OWNER.

9.7 Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the OWNER, its officers, officials, employees, and volunteers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It

is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been *mutually negotiated* by the parties. The *provisions* of this section shall survive the expiration or termination of this Agreement.

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

This Agreement will be effective on \_\_\_\_\_, 201\_\_ (which is the Effective Date of the Agreement).

OWNER \_\_\_\_\_ CONTRACTOR \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest \_\_\_\_\_

Attest \_\_\_\_\_

Address for giving notices

Address for giving notices

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

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

License No. \_\_\_\_\_

Agent for service of process: \_\_\_\_\_

\_\_\_\_\_  
(If CONTRACTOR is a corporation, attach evidence of authority to sign).

**NOTICE TO PROCEED**

Dated: \_\_\_\_\_

TO: \_\_\_\_\_  
(CONTRACTOR)

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

PROJECT: Chehalis Riverside Road Forcemain Replacement Project

OWNER'S CONTRACT NO. \_\_\_\_\_

CONTRACT FOR: Chehalis Riverside Road Forcemain Replacement Project  
(Insert name of Contract as it appears in the Bidding Documents)

You are notified that the Contract Times under the above contract will commence to run on \_\_\_\_\_. By that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 3 of the Agreement, the date of Substantial Completion is \_\_\_\_\_. The date for completion and readiness for final payment is \_\_\_\_\_.

Before you may start any Work at the site, paragraph 2.7 of the General Conditions provides that Contractor must deliver (with copies to ENGINEER and other identified additional insureds) certificates of insurance in accordance with the Contract Documents.

\_\_\_\_\_  
(OWNER)

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(TITLE)

ACCEPTANCE OF AWARD

\_\_\_\_\_  
(CONTRACTOR)

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(TITLE)

\_\_\_\_\_  
(DATE)

Copy to ENGINEER  
(Use Certified Mail,  
Return Receipt Requested)

# CHANGE ORDER

(Instructions on reverse side)

No.   1  

PROJECT \_\_\_\_\_

DATE OF ISSUANCE \_\_\_\_\_

EFFECTIVE DATE \_\_\_\_\_

OWNER City of Chehalis

OWNER'S Contract No. N/A

CONTRACTOR \_\_\_\_\_

ENGINEER Gibbs & Olson, Inc.

You are directed to make the following changes in the Contract Documents.

Description:

Reason for Change Order:

This change order includes all direct and indirect costs for labor, equipment, materials and the time required for completion of the work described delivered to the Owner ready for use.

Attachments: (List documents supporting change)

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
Original Contract Price  \$ _____	Original Contract Times  Substantial Completion: _____ Ready for final payment: _____ <span style="display: block; text-align: right; font-size: small;">days or dates</span>
Net changes from previous Change Order No. ___ to No. ___  \$ _____	Net changes from previous Change Order No. ___ to No. ___  _____ days
Contract Price prior to this Change Order  \$ _____	Contract Times prior to this Change Order  Substantial Completion: _____ Ready for final payment: _____ <span style="display: block; text-align: right; font-size: small;">days or dates</span>
Net Increase of this Change Order  \$ _____	Net Increase (decrease) of this Change Order  _____ days
Contract Price with all approved Change Orders  \$ _____	Contract Times with all approved Change Orders  Substantial Completion: _____ Ready for final payment: _____ <span style="display: block; text-align: right; font-size: small;">days or dates</span>

RECOMMENDED:  
  
By: \_\_\_\_\_  
Engineer (Authorized Signature)

APPROVED:  
  
By: \_\_\_\_\_  
Owner (Authorized Signature)

ACCEPTED:  
  
By: \_\_\_\_\_  
Contractor (Authorized Signature)

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

## **CHANGE ORDER**

### **INSTRUCTIONS**

#### **A. GENERAL INFORMATION**

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Contract Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating change order items to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order may be used.

#### **B. COMPLETING THE CHANGE ORDER FORM**

Engineer initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Contractor for approval. After approval by Contractor, all copies should be sent to Owner for approval. Engineer should make distribution of executed copies after approval by Owner.

If a change only applies to Contract Price or to Contract Times, cross out the part of the tabulation that does not apply.

# CERTIFICATE OF SUBSTANTIAL COMPLETION

---

---

OWNER's Project No. \_\_\_\_\_ ENGINEER's Project No. \_\_\_\_\_

---

---

PROJECT \_\_\_\_\_

---

---

CONTRACTOR: \_\_\_\_\_

Contract For \_\_\_\_\_ Contract Date \_\_\_\_\_

---

---

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

To \_\_\_\_\_  
OWNER

And To \_\_\_\_\_  
CONTRACTOR

---

---

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

\_\_\_\_\_  
DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of the CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within \_\_\_\_\_ days of the above date of Substantial Completion.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as follows:

RESPONSIBILITIES:

OWNER : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

---

The following documents are attached to and made a part of this Certificate:

---

---

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

---

---

Executed by ENGINEER on \_\_\_\_\_, 201\_\_

\_\_\_\_\_  
ENGINEER

By \_\_\_\_\_

CONTRACTOR accepts this Certificate of Substantial Completion on \_\_\_\_\_, 201\_\_

\_\_\_\_\_  
CONTRACTOR

By \_\_\_\_\_

OWNER accepts this Certificate of Substantial Completion on \_\_\_\_\_, 201\_\_

\_\_\_\_\_  
OWNER

By \_\_\_\_\_

**PART IV**  
**STANDARD GENERAL CONDITIONS**  
**AND**  
**SUPPLEMENTARY CONDITIONS**



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

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FUNDING AGENCY EDITION

*Prepared by*

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*a practice division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

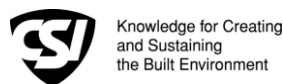
This document has been approved and endorsed by

The Associated General Contractors of America



and the

Construction Specification Institute



These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Funding Agency Edition No. C-521 (2002 Edition). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001, 2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800, 2002 Edition).

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# GENERAL CONDITIONS

## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda* – Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
2. *Agency* – The Federal or state agency named as such in the Agreement.
3. *Agreement* – The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
4. *Application for Payment* – The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
5. *Asbestos* – Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
6. *Bid* – The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
7. *Bidder* – The individual or entity who submits a Bid directly to Owner.
8. *Bidding Documents* – The Bidding Requirements and the proposed Contract Documents (including all Addenda).
9. *Bidding Requirements* – The Advertisement or Invitation to Bid, Instructions to Bidders, bid

security of acceptable form, if any, and the Bid Form with any supplements.

10. *Change Order* – A document recommended by Engineer which is signed by Contractor and Owner and Agency and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
11. *Claim* – A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
12. *Contract* – The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
13. *Contract Documents* – Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
14. *Contract Price* – The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
15. *Contract Times* – The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
16. *Contractor* – The individual or entity with whom Owner has entered into the Agreement.
17. *Cost of the Work* – See Paragraph 11.01.A for definition.
18. *Drawings* – That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

19. *Effective Date of the Agreement* – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
20. *Engineer* – The individual or entity named as such in the Agreement.
21. *Field Order* – A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
22. *General Requirements* – Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.
23. *Hazardous Environmental Condition* – The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
24. *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.
25. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens* – Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
27. *Milestone* – A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
28. *Notice of Award* – The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
29. *Notice to Proceed* – A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
30. *Owner* – The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
31. *PCBs* – Polychlorinated biphenyls.
32. *Petroleum* – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
33. *Progress Schedule* – A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
34. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
35. *Project Manual* – The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
36. *Radioactive Material* – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
37. *Related Entity* – An officer, director, partner, employee, agent, consultant, or subcontractor.
38. *Resident Project Representative* – The authorized representative of Engineer who may be assigned to the Site or any part thereof.
39. *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.
40. *Schedule of Submittals* – A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
41. *Schedule of Values* – A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.

42. *Shop Drawings* – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
43. *Site* – Lands or areas indicated in the *Contract Documents* as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
44. *Specifications* – That part of the Contract Documents consisting of written requirements for materials, equipment, systems, *standards* and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
45. *Subcontractor* – An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
46. *Substantial Completion* – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a *specified* part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
47. *Successful Bidder* – The Bidder submitting a *responsive* Bid to whom Owner makes an award.
48. *Supplementary Conditions* – That part of the Contract *Documents* which amends or supplements these General Conditions.
49. *Supplier* – A manufacturer, fabricator, supplier, *distributor*, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.
50. *Underground Facilities* – All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or *other* such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
51. *Unit Price Work* – Work to be paid for on the basis of unit prices.
52. *Work* – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract *Documents*. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
53. *Work Change Directive* – A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and Agency upon recommendation of the Engineer ordering an addition, deletion, or revision in the Work, or *responding* to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

#### 1.02 Terminology

- A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.
- B. *Intent of Certain Terms or Adjectives*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered”, “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as

shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents, or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
  - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context

clearly requiring an obligation of Contractor, “provide” is implied.

- F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

**ARTICLE 2 – PRELIMINARY MATTERS**

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement.

2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
  1. a preliminary Progress Schedule;
  2. a preliminary Schedule of Submittals; and



3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

#### 2.06 *Preconstruction Conference*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, Agency, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

#### 2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
  1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### 3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. 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 specifically called for at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### 3.02 *Reference Standards*

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

#### 3.03 *Reporting and Resolving Discrepancies*

- A. Reporting Discrepancies
  1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking

each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work:* 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 Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

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

3.04 *Amending and Supplementing 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 either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3) or
  3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

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

3.06 *Electronic Data*

- A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or

otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

**ARTICLE 4 – AVAILABILITY OF LANDS;  
SUBSURFACE AND PHYSICAL CONDITIONS;  
HAZARDOUS ENVIRONMENTAL  
CONDITIONS; REFERENCE POINTS**

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports of explorations and tests of subsurface conditions at or contiguous to the

Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

- A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:
1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
  2. is of such a nature as to require a change in the Contract Documents; or
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the

subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
- b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

- a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
- b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data,
  - b. locating all Underground Facilities shown or indicated in the Contract Documents,
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written

notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 Reference Points

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.06 Hazardous Environmental Condition at Site

- A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for any Hazardous Environmental Condition 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. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition

and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other

professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 – BONDS AND INSURANCE

### 5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- 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 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety

or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### 5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

### 5.04 *Contractor's Liability Insurance*

- A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;

- 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
- 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

### B. The policies of insurance required by this Paragraph 5.04 shall:

- 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
- 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
- 3. include completed operations insurance;
- 4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
- 5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
- 6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
- 7. with respect to completed operations insurance, and any insurance coverage written on a

claims-made basis, remain in effect for at least two years after final payment.

- a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (Contractor shall be responsible for any deductible or self-insured retention.). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
3. include expenses incurred in the repair or replacement of any insured property (including

but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
5. allow for partial utilization of the Work by Owner;
6. include testing and startup; and
7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

- B. Contractor shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.



## 5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion

pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

## 5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Contractor and made payable to Contractor as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Contractor shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof.
- B. Contractor as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Contractor's exercise of this power. If such objection be made, Contractor as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Contractor as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Contractor as fiduciary shall give bond for the proper performance of such duties.

## 5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance

provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

#### 5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

### **ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES**

#### 6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor.

All communications given to or received from the superintendent shall be binding on Contractor.

#### 6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

#### 6.03 *Services, Materials, and Equipment*

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

#### 6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in

Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
  - a. in the exercise of reasonable judgment Engineer determines that:
    - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
    - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

- 3) it has a proven record of performance and availability of responsive service; and

- b. Contractor certifies that, if approved and incorporated into the Work:
  - 1) there will be no increase in cost to the Owner or increase in Contract Times, and
  - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

#### 2. Substitute Items

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The procedure requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) will perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:

- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;
  - b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
  - c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
- a) all variations of the proposed substitute item from that specified, and
  - b) available engineering, sales, maintenance, repair, and replacement services;
- 4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole

judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement

for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor
2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the 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.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate 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 Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the

agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

#### 6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are

applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 6.10 *Taxes*

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

#### 6.11 *Use of Site and Other Areas*

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

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full

responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work, Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

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

#### 6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and

clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

#### 6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other

individual or entity directly or indirectly employed by any of them).

- D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any 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.

#### 6.16 *Emergencies*

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

#### 6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

##### 1. *Shop Drawings*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and

design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:
  - a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
  - c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and
  - d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to

Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review



and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

#### 6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

#### 6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. 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, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  - 2. normal wear and tear under normal usage.
- C. 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 Engineer;
  - 2. recommendation by Engineer or payment by Owner of any progress or final payment;
  - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  - 4. use or occupancy of the Work or any part thereof by Owner;
  - 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
  - 6. any inspection, test, or approval by others; or
  - 7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:
  - 1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are

specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## **ARTICLE 7 – OTHER WORK AT THE SITE**

### **7.01 Related Work at Site**

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
  - 1. written notice thereof will be given to Contractor prior to starting any such other work; and

- 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

### **7.02 Coordination**

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
  - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  - 2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

### **ARTICLE 8 – OWNER'S RESPONSIBILITIES**

#### 8.01 *Communications to Contractor*

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

#### 8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

#### 8.03 *Furnish Data*

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

#### 8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

#### 8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

#### 8.06 *Insurance*

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

#### 8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

#### 8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

#### 8.09 *Limitations on Owner's Responsibilities*

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

#### 8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

#### 8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

### **ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

#### 9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

#### 9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the

progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

#### 9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

#### 9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall

perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

#### 9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

#### 9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

#### 9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final

payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

#### 9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, subject to written approval by Agency at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

#### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
  - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective

Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

#### 10.04 Notification to Surety

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

#### 10.05 Claims

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance

with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
  1. deny the Claim in whole or in part,
  2. approve the Claim, or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

### **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

#### 11.01 Cost of the Work

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by

Owner, 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 Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses

and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressages, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 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. 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.

- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

#### 11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*

- 1. Contractor agrees that:

- a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*

- 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer



to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

### 11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
  1. the Bid price of a particular item of Unit Price Work amounts to more than 5 percent of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
  2. there is no corresponding adjustment with respect to any other item of Work; and
  3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## **ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

### 12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
  3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
  2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
    - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
    - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or

failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.B.

1. delays caused by or within the control of Contractor; or

- D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

**ARTICLE 13 – TESTS AND INSPECTIONS;  
CORRECTION, REMOVAL OR ACCEPTANCE  
OF DEFECTIVE WORK**

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

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

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely 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.

- B. Owner 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:
  - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
  - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and
  - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 Uncovering Work

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 13.05 Owner May Stop the Work

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 13.06 Correction or Removal of Defective Work

- A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all

fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
2. correct such defective Work; or
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the

correction period for that item may start to run from an earlier date if so provided in the Specifications.

- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

### *14.01 Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### *14.02 Progress Payments*

#### *A. Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### *B. Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used
- e. the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
  - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.
- C. Payment Becomes Due*
1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.
- D. Reduction in Payment*
1. Owner may refuse to make payment of the full amount recommended by Engineer because:
- a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - c. the Contractor's performance or furnishing of the Work is inconsistent with funding Agency requirements;

- d. there are other items entitling Owner to a set-off against the amount recommended; or
  - e. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.
  3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

#### 14.03 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### 14.04 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Agency, Contractor, and Engineer shall make a prefinal inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the

tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

#### 14.05 Partial Utilization

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.
  1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and

Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

#### 14.06 Final Inspection

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

#### 14.07 Final Payment

##### A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final

payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and
  - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

##### B. Engineer's Review of Application and Acceptance

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to



Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims. The remaining balance of any sum included in the final Application for Payment but held by OWNER for Work not fully completed and accepted will become due when the Work is fully completed and accepted.

14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
  1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

**ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
  1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
  1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),
  2. incorporate in the Work all materials and equipment stored at the Site or for which

Owner has paid Contractor but which are stored elsewhere, and

3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

#### 15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including

fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
  3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
  4. reasonable expenses directly attributable to termination.
- B. 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.

#### 15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

## ARTICLE 16 – DISPUTE RESOLUTION

### 16.01 *Methods and Procedures*

- A. Owner and Contractor may mutually request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
  1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or
  2. agrees with the other party to submit the Claim to another dispute resolution process, or
  3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 – MISCELLANEOUS

### 17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or
  2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### 17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a

Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 *Cumulative Remedies*

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

### 17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees 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 Contract or termination of the services of Contractor.

### 17.05 *Controlling Law*

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

### 17.06 *Headings*

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

## ARTICLE 18 – FEDERAL REQUIREMENTS

### 18.01 *Agency Not a Party*

- A. This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees is a party to this Contract.

### 18.02 *Contract Approval*

- A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the following "Certificate of Owner's Attorney" (Exhibit GC-A) before Owner submits the executed Contract Documents to Agency for approval.
- B. Concurrence by Agency in the award of the Contract is required before the Contract is effective.

### 18.03 *Conflict of Interest*

- A. Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer.
- B. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

### 18.04 *Gratuities*

- A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.
- B. In the event this Contract is terminated as provided in paragraph 18.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

### 18.05 *Audit and Access to Records*

- A. For all negotiated contracts and negotiated modifications (except those of \$10,000 or less), Owner, Agency, the Comptroller General, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor, which are pertinent to the Contract, for the purpose of making audits,

examinations, excerpts and transcriptions. Contractor shall maintain all required records for three years after final payment is made and all other pending matters are closed.

### 18.06 *Small, Minority and Women's Businesses*

- A. If Contractor intends to let any subcontracts for a portion of the work, Contractor shall take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women's businesses on solicitation lists; (2) assuring that small, minority and women's businesses are solicited whenever they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) Contractor is encouraged to procure goods and services from labor surplus area firms.

### 18.07 *Anti-Kickback*

- A. Contractor shall comply with the Copeland Anti-Kickback Act (18 USC 874 and 40 USC 276c) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

### 18.08 *Clean Air and Pollution Control Acts*

- A. If this Contract exceeds \$100,000, Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 USC 7401 *et seq.*) and the Federal Water Pollution Control Act as amended (33 USC 1251 *et seq.*). Contractor will report violations to the Agency and the Regional Office of the EPA.

### 18.09 *State Energy Policy*

- A. Contractor shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

### 18.10 *Equal Opportunity Requirements*

- A. If this Contract exceeds \$10,000, Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."
- B. Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting Contractor's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.
- C. Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

### 18.11 *Restrictions on Lobbying*

- A. Contractor and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 319) as supplemented by applicable

Agency regulations. This Law applies to the recipients of contracts and subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, Contractor must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 USC 1352. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

### 18.12 *Environmental Requirements*

- A. When constructing a project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental constraints:
  1. Wetlands – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
  2. Floodplains – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert 100 year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, i.e., alluvial soils on NRCS Soil Survey Maps.
  3. Historic Preservation – Any excavation by Contractor that uncovers an historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
  4. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their

critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.

**EXHIBIT GC-A**

Certificate of Owner's Attorney

I, \_\_\_\_\_, the \_\_\_\_\_, undersigned,  
authorized and acting legal representative of \_\_\_\_\_,  
do hereby certify as follows:

I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

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Date: \_\_\_\_\_

# SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. c-700) (2007 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect. The table of contents listed below modify, amplify, and provide the additional information as required in the Articles and Paragraphs of the Standard General Conditions. The Standard General Conditions have been modified by the Owner and Supplemented by the Owner.

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1.01	DEFINITIONS
2.02	Copies of Documents
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## SUPPLEMENTARY CONDITIONS

### SC-1.01 DEFINITIONS

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (No. 1910-8, 1990 Edition) have the meanings assigned to them in the General Conditions.

### SC-2.02 COPIES OF DOCUMENTS

The Contractor will be furnished, free of charge, three copies of the Contract Documents. Additional copies of the Contract Documents and/or Drawings may be obtained on request by paying the actual cost of the reproducing of Contract Documents or Drawings. The Contractor shall keep one copy of the Contract Documents or Drawings on the work, available to the Engineer and to his representatives. Said copy shall be kept in good readable condition. As-built conditions shall be marked on one set of record drawings by Contractor and provided to the Owner at the end of the project.

### SC-3.07 REUSE OF DOCUMENTS

Contractor, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with Owner (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of Owner.

### SC-4.02 SUBSURFACE AND PHYSICAL CONDITIONS

In the preparation of Drawings and Specifications, the ENGINEER has relied upon the reports herein listed for the area where the sewer improvements are to be constructed. See Appendix B.

Letter Report  
Riverside Drive and Highway 6  
Chehalis, Washington

Dated January 25, 2019  
Pacific Testing & Inspection, Inc.  
2417 Harrison Avenue  
Centralia, WA 98632

The technical data contained in such reports upon which CONTRACTOR may rely is limited to the soils exploration results data contained in said investigation, and is as of the date made. These reports are not part of the Contract Documents, but the technical data contained therein upon which CONTRACTOR may rely as provided in GC-4.02.B and as identified and established above is incorporated herein by reference.

SC-5.0 BONDS AND INSURANCE

The Contractor shall not commence work under the Contract until he has obtained all necessary insurances and until such insurances have been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurances required of the subcontractors have been obtained and approved.

The minimum policy limits of Contractor's liability insurance shall be as follows: Bodily injury liability coverage with limits of not less than \$1,000,000 for bodily injury, including accidental death to any one person, and subject to that limit for each person in an amount of not less than \$1,000,000 for each accident; and property damage coverage in an amount of not less than \$1,000,000 for each accident. Umbrella coverage is acceptable. The Contractor, rather than the Owner, shall purchase and maintain property insurance upon work at the site to the full insurable value thereof. In addition to the coverages specified under 5.6 of the General Conditions, this insurance shall include "All Risk" or "Installation Floater" insurance for physical loss and damage due to explosion, hail, lightning, wind, collapse, riot, aircraft, flood, mudslide and smoke. The Contractor shall purchase and maintain similar property insurance for portions of the work stored on or off the site or in transit.

The Contractor shall be subject to meeting any supplementary insurance requirements as may be required for work related to permits or other specific work as identified in the Special Provisions.

SC-6.19 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE

Contractor's warranty and guarantee further includes damages or loss caused by vandalism up until the final acceptance of the project by the Owner.

SC-6.20 INDEMNIFICATION

The Contractor shall defend, indemnify, and hold the Owner, its officers, officials, employees, volunteers and the project engineers harmless including attorneys' fees, arising out of or in connection with the performance of this Agreement, except for injuries and damages caused by the sole negligence of the Owner.

Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the Owner, its officers, officials, employees, volunteers and project engineers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

SC-9.03 PROJECT REPRESENTATIVE

The Resident Project Representative (RPR) is Engineer's agent at the site, will act as directed by and under the supervision of Engineer, and will confer with

Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the onsite work shall in general be with Engineer and Contractor keeping Owner advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner with the knowledge of and under the direction of Engineer.

A. DUTIES AND RESPONSIBILITIES OF RPR:

1. SCHEDULES: Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
2. CONFERENCES AND MEETINGS: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project related meetings, and prepare and circulate copies of minutes thereof.
3. LIAISON:
  - a. Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the Contract Documents; and assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's onsite operations.
  - b. Assist in obtaining from Owner additional details or information, when required for proper execution of the work.
4. SHOP DRAWINGS AND SAMPLES:
  - a. Record date of receipt of Shop Drawings and samples.
  - b. Receive samples which are furnished at the site by Contractor, and notify Engineer of availability of samples for examination.
  - c. Advise Engineer and Contractor of the commencement of any work requiring a shop drawing or sample if the submittal has not been approved by Engineer.
5. REVIEW OF WORK, REJECTION OF DEFECTIVE WORK, INSPECTIONS AND TESTS:
  - a. Conduct onsite observations of the work in progress to assist Engineer in determining if the work is in general proceeding in accordance with the contract documents.

- b. Report to Engineer whenever RPR believes that any work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
  - c. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; and observe, record and report to Engineer appropriate details relative to the test procedures and startups.
  - d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the project, record the results of these inspections and report to Engineer.
6. INTERPRETATION OF CONTRACT DOCUMENTS: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
7. MODIFICATIONS: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to Engineer. Transmit to Contractor decisions as issued by Engineer.
8. RECORDS:
- a. Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and samples, reproductions of original contract documents including all work directive changes, addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, and other project related documents.
  - b. Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions of work directive changes, change orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

- c. Record names, addresses and telephone numbers of all Contractors, Subcontractors and major suppliers of materials and equipment.

9. REPORTS:

- a. Furnish Engineer periodic reports as required of progress of the work and of Contractor's compliance with the progress schedule and schedule of shop drawing and sample submittals.
- b. Consult with Engineer in advance of scheduled major tests, inspections or start of important phases of the work.
- c. Draft proposed change orders and work directive changes, obtaining backup material from Contractor and recommend to Engineer change orders, work directive changes, and field orders.
- d. Report immediately to Engineer and Owner upon the occurrence of any accident.

10. PAYMENT REQUESTS: Reviews applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated into the work.

11. CERTIFICATES, MAINTENANCE AND OPERATION MANUALS: During the course of the work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to Engineer for review and forwarding to Owner prior to final payment for the work.

12. COMPLETION:

- a. Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- b. Conduct final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed or corrected.

- c. Observe that all items on final list have been completed or corrected and make recommendations to Engineer concerning acceptance.

B. LIMITATIONS OF AUTHORITY

Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by Engineer.
2. Shall not exceed limitations of Engineer's authority as set forth in the Agreement or the General Provisions to the Letter Agreement or the Contract Documents.
3. Shall not undertake any of the responsibilities of Contractor, subcontractors or Contractor's superintendent.
4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the work.
6. Shall not accept Shop Drawings or sample submittals from anyone other than Contractor.
7. Shall not authorize Owner to occupy the Project in whole or in part.
8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by Engineer.

SC-9.07 DETERMINATION FOR UNIT PRICES

Delete Paragraph 9.10 of the General Conditions in its entirety and insert the following in its place:

9.10. ENGINEER will have authority to determine the actual quantities and classifications of items of Unit Price Work performed by CONTRACTOR, and the written decisions of ENGINEER on such matters will be final, binding on OWNER and CONTRACTOR and not subject to appeal (except as modified by ENGINEER to reflect changed factual conditions).

SC-14.02 PROGRESS PAYMENTS

Progress Payments shall be submitted at least 10 days prior to the regularly scheduled Council Meetings, except for legal holidays, but no more than once per month.

Should application for payment be submitted after this aforementioned cutoff date, Engineer review and Council action on the payment request may be delayed longer than the prescribed periods and therefore not subject to interest.

Should payment be delayed beyond 15 days after the Council action, monies owed shall be subject to a maximum of 1% per month upon the portion of any unpaid billing for which the Owner has wrongfully failed to pay.

SC-16.0 DISPUTE RESOLUTION

Resolution of disputes and disagreements shall be accomplished and governed by the laws of the State of Washington using Lewis County Superior Court. Venue shall be County of Lewis and all judicial actions shall occur in the Superior Court of the State of Washington in and for the County of Lewis.

SC-18.12.A.3. HISTORIC PRESERVATION:

Delete Paragraph 18.12.A.3 in its entirety and insert the following:

3. Unanticipated Discovery Plan – Historic Preservation: Any excavation or other earth moving activity by the contractor that uncovers cultural resources including historical or archaeological artifacts, human or cultural items, or fossil or other paleontological materials, shall be immediately reported as follows:
  - a. If earth disturbing activities during project construction uncover cultural materials (i.e. structural remains, historic artifacts, or prehistoric artifacts), all work shall cease at the effected location (initially allowing for a 100' buffer) and the following actions taken;
    1. Implement reasonable measure to protect the discovery site, including any appropriate stabilization or covering.
    2. Takes reasonable steps to ensure the confidentiality of the discovery site and,
    3. Take reasonable steps to restrict access to the site of discovery.
  - b. The project proponent (City of Chehalis) will notify the concerned Tribes and all appropriate county, state, and federal agencies including the Washington State Archaeologist at the Department of Archaeology and Historic Preservation (DAHP), the History/Archaeology office of the Chehalis, Cowlitz, and Nisqually Tribe of Indians, the cultural resources programs of David Burnett (Chehalis 360-273-5911), Dave Burlingame (Cowlitz 360-577-6962) and Dorian Sanchez (Nisqually 360-456-5221)
  - c. If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected

Tribes will take place in order to mitigate the final disposition of said remains.

- d. See the Revised Code of Washington, Chapter 27.53, "Archaeological Sites and Resources" for applicable state laws and statutes. See also Washington State Executive Order 05-05, "Archeological and Cultural Resources." Additional state and federal law(s) may also apply.



**PART V**  
**GENERAL REQUIREMENTS**

# Division 1

## General Requirements

- Section 01010 – Scope of Work
- Section 01021 – Allowances
- Section 01040 – Control of Work
- Section 01041 – Coordination & Work Restrictions
- Section 01060 – Standards
- Section 01070 – Definitions and Abbreviations
- Section 01152 – Schedules, Meetings, and Reports
- Section 01160 – Mobilization
- Section 01300 – Submittals
- Section 01305 – Legal Responsibilities
- Section 01400 – Contractor's Responsibility
- Section 01500 – Temporary Facilities and Controls
- Section 01510 – Contractor's Responsibility for Utilities
- Section 01545 – Protection & Restoration
- Section 01562 – Dust Control & Explosives
- Section 01568 – Temporary Water Pollution / Erosion Control
- Section 01570 – Traffic Control
- Section 01630 – Products & Substitutions
- Section 01700 – Project Closeout
- Section 01730 – Operation and Maintenance Data

# **SECTION 01010 SCOPE OF WORK**

## **PART 1 - GENERAL**

### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### **1.02 EXAMINATION OF DOCUMENTS**

- A. The CONTRACTOR shall examine and be familiar with the General Conditions, Supplemental General Conditions and Technical Specifications which are an important and integral part of this Contract.
- B. Failure or neglect to receive or examine the Contract Documents shall in no way relieve the Bidder from any obligations regarding his Bid Form or to this Contract. No claim for additional compensation will be allowed for lack of knowledge of the Contract Documents and the OWNER will in no case be responsible for any loss suffered by the CONTRACTOR.

### **1.03 INTENT OF THE CONTRACT**

- A. The intent of the Contract is to prescribe a complete project. The CONTRACTOR shall provide all labor, materials, tools, equipment, transportation, supplies and incidentals required to complete all Contract work. Omissions from the Contract of details of work which are necessary to carry out the intent of the Contract, or which are customarily performed, shall not relieve the CONTRACTOR from performing the omitted work, but they shall be performed as if fully and correctly set forth and described in the Contract. The unit Contract bid prices shall be full pay for all work and materials required to complete the work.
- B. The CONTRACTOR shall include all costs of doing the work within the unit bid prices. If the Drawings, Specifications, Addenda, or any other part of the Contract requires work that has no unit price in the Bid Form, the cost of such work shall be incidental and included within the unit bid prices in the Contract.

### **1.04 COORDINATION OF CONTRACT DOCUMENTS, DRAWINGS, TECHNICAL SPECIFICATIONS, AND ADDENDA**

- A. The complete Contract includes these parts: The Agreement with bonds and insurance certificates, bidder's completed Bid Form, Drawings, Contract general and supplementary conditions, technical specifications, standard specifications, standard plans, Addenda, and change orders (if any). These parts complement each other in describing a complete project. Any requirement in one part binds as if stated in all parts. The CONTRACTOR shall provide any work or materials clearly implied in the Contract even if the Contract does not mention it specifically.

- B. If any part of the Contract requires work that does not include a description for how the work is to be performed, the work shall be performed in accordance with standard trade practice(s). For purposes of the Contract, a standard trade practice is one having such regularity of observance in the trade as to justify an expectation that it will be observed by the CONTRACTOR in doing the work.
- C. In case of any ambiguity or dispute over interpreting the Contract, the ENGINEER's decision will be final as provided in Article 9 of the General Conditions.

#### 1.05 DESCRIPTION OF PROJECT

- A. The work consists of construction of approximately 2450 linear feet of sewer piping that connects the Riverside Road Sewer Pump Station to an existing valve near NW Shoreline Drive. A combination of HDPE and ductile iron pipe will be used. Approximately 2,314 linear feet of HDPE pipe and 136 linear feet of ductile iron pipe for a bridge crossing is required. Also included is a boring and casing beneath State Route 6 and two air release assemblies.

#### 1.06 COORDINATION OF CONSTRUCTION

- A. The CONTRACTOR is free to develop his own sequence of construction. The ENGINEER and OWNER will cooperate in determining potential means of operation if the CONTRACTOR develops such a schedule. In any case, the ENGINEER and OWNER shall approve the final schedule prior to beginning construction.
- B. Construction work may be necessary outside of normal working hours in order to avoid unnecessary outages. This possibility, as well as any delays caused by equipment or material deliveries, shall impose no obligation for special payment upon the OWNER.

#### 1.07 ACCESS TO WORK

- A. The CONTRACTOR shall provide access to all work under the Contract wherever it is in preparation or progress to representatives of the OWNER, the ENGINEER and applicable regulatory/funding agencies.

#### 1.08 STORAGE AREAS AND WASTE SITES

- A. In all cases storage areas for construction materials or waste sites for organic materials are to be provided by the CONTRACTOR at no expense to the OWNER. When the CONTRACTOR uses private lands provided by any party for organic waste or disposal, he shall supply the OWNER with a release signed by the property owner prior to final payment.

#### 1.09 UNIT PRICE WORK INCREASE/DECREASE IN QUANTITIES

- A. Where the Contract Documents provide that all or part of the work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed

and are solely for the purpose of comparison of Bids and determining an initial Contract Price.

- B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.
- C. A major bid is defined as a bid item for which the total unit bid item price is 10 percent or more of the awarded Contract Price (excluding taxes) as determined by the original estimated quantities and unit bid item prices.
- D. If there is a change that increases or decreases a major bid item by more than 25 percent according to one of the following criteria;
  - 1. The total cost of the work when calculated from the awarded bid quantities and unit bid item prices, or
  - 2. The total quantities of a major bid item when calculated from the original bid quantities,

An adjustment in the price for that portion of the work, or major bid item, in excess of the 25 percent increase or decrease shall be made by change order pursuant to Article 11 of the General Conditions, at the discretion of the OWNER. Written consent of the surety will also be required whenever the ENGINEER believes such to be in the best interest of the CONTRACTOR or the OWNER. Conditions 1 and 2 above shall not apply to bid items that are entered in the Bid Form as a fixed price item by the ENGINEER to provide a common bid item for all bidders.

- E. Conditions A and B above shall not apply to bid items that are entered in the Bid Forms as a fixed price item by the ENGINEER to provide a common bid item for all Bidders.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01010 --

# SECTION 01021 ALLOWANCES

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 – General Requirements, apply to work of this section.

### 1.02 SUMMARY

- A. Section Includes: Listing of allowance items, related responsibilities of ENGINEER and CONTRACTOR, and procedures.

### 1.03 ALLOWANCE AMOUNTS

- A. Allowances indicated in this Section are to provide a common bid amount for all Bidders. The actual amount paid under Allowances may vary from no payment to the full amount of the allowance.

Include following amounts in Contract Price as indicated in the Bid Form:

Misc. Construction \$30,000

These amounts are for “Miscellaneous Construction” for any additional work directed by the ENGINEER that is not required by the original Contract.

## PART 2 – PRODUCTS (NOT APPLICABLE)

## PART 3 – EXECUTION (NOT APPLICABLE)

## PART 4 – MEASUREMENT AND PAYMENT

### 4.01 PAYMENT

- A. The value of the work authorized by the ENGINEER and executed under provisions specified for “Miscellaneous Construction” Allowances, shall be determined in accordance with Paragraph 11.3 of the General Conditions.
- B. Costs included in the Allowances, and costs not included in Allowances but included in the Contract Price shall be subject to the terms outlined in Paragraph 11.8 of the General Conditions.

- C. Payment for Work executed under Allowances shall be made by including a line item in the Application for Payment for "Miscellaneous Construction." Upon agreement of the cost for Work to be performed under Allowances, payment will be made to CONTRACTOR from this line item.

-- END OF SECTION 01021 --

## **SECTION 01040 CONTROL OF WORK**

### **PART 1 - GENERAL**

#### **1.01 REFERENCE STAKES**

- A. The Engineer will establish two reference elevation and coordinate benchmarks at up to three different locations (starting points, pump stations, etc.) throughout the project area as selected by the Contractor.
- B. From the Engineer provided information, the Contractor shall develop and make such additional surveys as are needed for construction such as control lines, stake slopes, batter boards, staking for pipe and structure locations with offsets and other working points, lines and elevations. Contractor survey work to be performed under the supervision of a licensed land surveyor or registered civil engineer in the State of Washington.
- C. Stakes, benchmarks, and other reference points, including existing monumentation, set by Owner or Engineer shall be carefully preserved by the Contractor. The Contractor will be charged for the costs of replacing stakes, benchmarks, reference points, and monumentation that were not to be disturbed but were destroyed or damaged by the Contractor's operations. This charge will be deducted from monies due or to become due to the Contractor.
- D. During the progress of the Work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities. The Contractor shall be fully responsible for the close coordination of field location and measurements with appropriate dimensions of structural members being fabricated. The Contractor shall ensure that required field measurements and locations, match and fulfill the intended Drawing dimensions.

#### **1.02 INSPECTIONS, TESTS AND REPORTS**

- A. General: Required inspection and testing services are intended to assist in determination of probable compliance of Work with requirements, but do not relieve Contractor of responsibility for those compliances, or for general fulfillment of requirements of Contract Documents. Specified inspections and tests are not intended to limit Contractor's quality control program. Afford reasonable access to the Owner, the Owners agents and agencies performing tests and inspections.
- B. Owner's Tests: Where tests or inspections are indicated as Owner's responsibility, Owner will engage independent testing agency to perform required services.
- C. Qualification of Testing Agencies: Except as otherwise indicated and except where manufacturer's testing facilities are indicated as acceptable, the Contractor shall engage independent testing laboratories specializing in required services.



- D. Reports: Test/inspection reports, whether done by the Owner or Contractor shall be distributed to the Contractor, Owner and Engineer.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the Project and no direct payment will be made to the Contractor for Work specified in this section.

-- END OF SECTION 01040 --

# SECTION 01041 COORDINATION AND WORK RESTRICTIONS

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### 1.02 DESCRIPTION OF WORK: Applicable work associated with the bid schedule presented in the Bid Form is as follows:

**BID SCHEDULE:** CONTRACTOR shall coordinate the work under this project and provide all labor, equipment and materials to maintain the operation of existing utilities and conveyance systems and complete the construction of new utilities within the time constraints identified within this section in accordance with the conditions, constraints and requirements herein.

### 1.03 SUBMITTALS: CONTRACTOR shall submit the following as specified and in accordance with the provision of SECTION 01300 herein.

### 1.04 GENERAL CONSTRAINTS AND REQUIREMENTS

- A. The CONTRACTOR will be required to coordinate activities with the City of Chehalis Public Works Department.
- B. The CONTRACTOR shall execute the work while the existing facilities are in operation.
- C. Minimize shutdown times by thorough advanced planning. Have required piping, equipment, materials, and labor on hand at time of shutdown.
- D. Where required to minimize interruptions while complying with specified sequencing constraints, provide temporary instrumentation and safety devices.
- E. The CONTRACTOR shall provide continuous access to existing facilities for routine O&M by the OWNER.

### 1.05 SPECIFIC CONSTRAINTS AND REQUIREMENTS: The specific constraints and requirements are as follows:

- A. The project site is limited to the existing right-of-ways for Riverside Road and NW Louisiana Avenue as shown on the Drawings. The CONTRACTOR is responsible for securing access to all other properties the CONTRACTOR may use during construction. The crossing of State Route 6 is authorized under the WSDOT permit in Appendix A.

B. Sewage Discharge/Spills

1. Discharge of untreated sewage or partially treated sewage to surface waters or drainage courses is prohibited during construction. In the event of accidental sewage discharge caused by the CONTRACTOR's operations, the OWNER shall immediately be entitled to employ others to stop the sewage discharge. The cost and expense of so doing shall be charged to the CONTRACTOR.
2. Penalties imposed on the OWNER, the ENGINEER, or any others associated with this project as a result of any sewage discharge caused by the CONTRACTOR, CONTRACTOR employees, or subcontractors shall be borne in full by the CONTRACTOR, including legal fees and other expenses to the OWNER resulting directly or indirectly from the sewage discharge.

C. The CONTRACTOR shall conduct work in a manner that will not impair the operational capabilities of essential elements of the conveyance systems or reduce the capacity of the entire conveyance systems below levels sufficient to convey the quantity of raw wastewater required with consideration for seasonal flows. The operation of the Riverside Rd. pump station will need to be considered before live connecting the existing forcemain sewer. A clean flow pattern for sewage flows must be in place at the end of each working day.

D. The CONTRACTOR shall conduct the work in a manner that will not impose undue or detrimental loading conditions on the wastewater collection or treatment systems.

PART 2 – PRODUCTS – NOT APPLICABLE

PART 3 – EXECUTION

3.01 GENERAL

- A. The CONTRACTOR shall perform the work in this section in accordance with the submitted items identified in this section.
- B. Provide piping of suitable material for the material being conveyed.
- C. The CONTRACTOR shall field verify all dimensions and conditions and report any discrepancies to the ENGINEER a minimum of 14 days in advance of any construction in the area.

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 The cost for all applicable work under this section shall be incidental to and included in the cost of related bid item(s) in the Bid Form.

-- END OF SECTION 01041 --

# SECTION 01060 STANDARDS

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### 1.02 ORDER OF PRECEDENCE

- A. The order of precedence for these Contract Documents shall be as follows, with each part listed governing over those indicated after it:
  - 1. Change Orders
  - 2. Addenda
  - 3. Technical Specifications
  - 4. Contract Drawings
  - 5. Supplementary Conditions
  - 6. EJCDC Standard General Conditions
  - 7. Bidding Documents
  - 8. City of Chehalis Standards
  - 9. Standard Specifications
  - 10. Standard Plans

### 1.03 INDUSTRY STANDARDS

- A. General Applicability of Standards: Applicable standards of construction industry have same force and effect (and are made a part of Contract Documents by reference) as if copied directly into Contract Documents, or as if published copies were bound herewith.
- B. Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of Contract Documents.
- C. Copies of Standards: The CONTRACTOR shall provide, where needed for proper performance of the work. Obtain them directly from publication sources.

### 1.04 CITY STANDARDS

- A. Refer to the City of Chehalis Standards for Regulations and requirements for installation of sewer lines.

1.05 STANDARD SPECIFICATIONS

- A. Standard Specifications where referred to shall mean the Standard Specifications for Road, Bridge and Municipal Construction, prepared by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association, latest Edition.

1.06 STANDARD PLANS

- A. Standard Plans where referred to shall mean the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association Standard Plans, latest Edition.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

PART 4 - MEASUREMENT AND PAYMENT (NOT APPLICABLE)

-- END OF SECTION 01060 --

# SECTION 01070

## DEFINITIONS AND ABBREVIATIONS

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### 1.02 ADDITIONAL DEFINITIONS

- A. APPROVE: Where used in conjunction with ENGINEER's response to submittals, requests, applications, inquiries, reports and claims by CONTRACTOR, the meaning of the term "approved" will be held to limitations of ENGINEER's responsibilities and duties as specified in the General and Supplementary Conditions. In no case will "approval" by ENGINEER be interpreted as a release of CONTRACTOR from responsibilities to fulfill requirements of the Contract Documents.
- B. AWARD: The formal decision of the OWNER to accept the lowest responsible and responsive bidder for the work.
- C. CALL FOR BIDS: The published public notice soliciting proposals or bids for work stating, among other things, the time, place, and date for receiving and opening the bids.
- D. DIRECTED, REQUESTED, ETC: Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted", mean "directed by ENGINEER", "requested by ENGINEER", etc. However, no such implied meaning will be interpreted to extend ENGINEER's responsibility into CONTRACTOR's area of construction supervision.
- E. FINAL COMPLETION DATE: Is the day all the work specified in the Contract is completed and all the obligations of the CONTRACTOR under the Contract are fulfilled by the CONTRACTOR. All documentation required by the Contract and required by law must be furnished by the CONTRACTOR before establishment of this date.
- F. FURNISH: Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.
- G. INDICATED: The term "indicated" is a cross-reference to graphics, notes or schedules on Drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown", "noted", "scheduled", or "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate the cross-reference, and no limitation of location is intended except as specifically noted.

- H. **INSTALL:** Except as otherwise defined in greater detail, the term "install" is used to describe operations at the project site including unloading, unpacking, assembly, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.
- I. **INSTALLER:** The entity (person or firm) engaged by CONTRACTOR or its subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in operations they are engaged to perform.
- J. **PROJECT SITE:** The space available to the CONTRACTOR for performance of the work, either exclusively or in conjunction with others performing other work as part of the project. The extent of the project site is shown on Drawings, and may or may not be identical with description of land upon which project is to be built.
- K. **PROVIDE:** Except as otherwise defined in greater detail, the term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
- L. **RIGHT-OF-WAY:** Land, property, or property interest, usually in a strip, acquired for or devoted to transportation purposes.
- M. **ROADBED:** The graded part of the roadway within top and side slopes, prepared as a foundation for the pavement structure and shoulders.
- N. **ROADWAY:** The portion of the right of way within the outside limits of the side slopes.
- O. **SHOULDER:** The part of the roadway next to the traveled way or auxiliary lanes. It provides lateral support of base and surface courses and is an emergency stopping area for vehicles.
- P. **STANDARD PLANS:** A manual of specific plans or drawings adopted by the Washington State Department of Transportation and/or the OWNER which show frequently recurring components of work that have been standardized for use.
- Q. **STANDARD SPECIFICATIONS:** The standard specifications are defined as the Standard Specifications for Road, Bridge and Municipal Construction, prepared by the Washington State Department of Transportation and the Washington State Chapter American Public Works Association, 2018 Edition. Said Standard Specifications are hereby made a part of the Contract Documents.
- R. **SUBGRADE:** The top surface of the roadbed on which subbase, base, surfacing, pavement, or layers of similar materials are placed.
- S. **SURETY:** A company that is bound with the CONTRACTOR to ensure performance of the Contract, payment of all obligations pertaining to the work, and fulfillment of such other conditions as are specified in the Contract, contract bonds, or otherwise required by law.

T. TESTING LABORATORY: An independent entity engaged to perform specific inspections or tests of the work, either at the project site or elsewhere, and to report and if required interpret the results of those inspections or tests.

1.03 ABBREVIATIONS: Reference to technical societies, organizations or bodies, are made in these specifications in accordance with the following abbreviations:

AAMA	Architectural Aluminum Manufacturer's Association
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AITC	American Institute of Timber Construction
AISI	American Iron and Steel Institute
ALSC	American Lumber Standards Committee
ANSI	American National Standards Institute
APA	American Plywood Association
APWA	American Public Works Association
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
AWPA	American Wood Products Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
CE	Corps of Engineers (U.S. Army)
CFR	Code of Federal Regulations
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard of NBS (U.S. Dept. of Commerce)
DFPA	Douglas Fir Products Association
DHI	Door and Hardware Institute
FS	Federal Specification
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers
IESNA	Illuminating Engineering Society of North America
NBS	National Bureau of Standards (U.S. Dept. of Commerce)
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NRCA	National Roofing Contractor's Association
NWMA	National Woodwork Manufacturer's Association
OSHA	Occupational Safety and Health Administration
PS	Product Standard of NBS (U.S. Dept. of Commerce)
SDI	Steel Door Institute
SJI	Steel Joist Institute
SMACNA	Sheet Metal & Air Conditioning Contractor's National Association
UBC	Uniform Building Code
UL	Underwriters' Laboratories
USASI	United States of America Standards Institute
USG	United States Gypsum Corporation
WCLIB	West Coast Lumber Inspection Bureau
WWPA	Western Wood Products Association



PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 - MEASUREMENT AND PAYMENT (NOT APPLICABLE).

-- END OF SECTION 01070 --

## **SECTION 01152 SCHEDULES, REPORTS, PAYMENTS**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 COORDINATION**

- A. Coordinate both the procedural timing and the listing (naming and sequencing) of reports/activities required by provisions of this section and other sections, to afford consistency and logical coordination between submitted reports or lists. Maintain coordination and correlation between separate reports by updating at monthly or shorter time intervals. Make appropriate distribution of each report and updated report to entities involved in the work including ENGINEER and OWNER. In particular, provide close coordination of progress schedule, schedule of values, listing of subcontracts, schedules of submittals, progress reports, and payment requests.

#### **1.03 PRELIMINARY PROGRESS SCHEDULE**

- A. Within 10 calendar days after issuance of the Notice to Proceed, the Contractor shall submit a preliminary schedule for the orderly performance and completion of all parts of the Work in accordance with the Contract and within the Contract Time ("Construction Schedule"). The Construction Schedule shall be based upon a critical path method analysis of construction activities and sequence of operations, in the form of a precedence diagram and activity listing, shall be time scaled, and shall take into account the date of Substantial Completion, and the date of Ready for Final Payment in accordance with the Contract Documents, along with clearly defined milestone completion dates. One color plot and electronic file of the schedule and network diagram are required submittals.

The network diagram shall show in detail, and in order, the sequence of all significant activities, their descriptions necessary to complete all parts of the Work, and shall show the following information for each activity: (i) description, (ii) duration, (iii) craft, (iv) equipment, (v) start and finish dates, (vi) total float time and free float time, and (vii) dates that Work must be performed and completed by other contractors and subcontractors to support the Work.

The schedule shall also include:

- the dates of submission for approval of drawings as may be required
- show coordination of work of Contractor with work of other contractors, especially with respect to availability of job sites
- the anticipated amount of each monthly payment that will become due to Contractor

- allowance for average inclement weather (time extensions due to average inclement weather will not be allowed)

Contractor shall allow in the schedule necessary time for any work required by private and Owner's utilities to locate, monitor, adjust, and put in new utilities as required.

Engineer may request Contractor to alter the progress schedule when deemed necessary in the opinion of Engineer, in the interest of public safety and welfare, or of Owner, or for coordination with any other activity of other contractors, due to availability of all, or portions of the job site, or as detailed elsewhere in the Special Provisions, or to reasonably meet the completion date of the project. Contractor shall provide such revised schedule within 10 days of request.

The Contractor shall perform the Work at all reasonable times so as to complete the Work in accordance with the Construction Schedule, and shall discontinue the Work only if delayed by inclement weather that could not have been reasonably anticipated at the time the Contractor submitted its Bid. Except for delays due to unanticipated inclement weather, the City shall be entitled to all float in the Construction Schedule and the Contractor shall not be entitled to any adjustment in the Contract Time, the Construction Schedule, or the Contract Sum, or to any additional payment of any sort by reason of the loss or use of any float time, including time between the Contractor's anticipated completion date and the end of the Contract Time, whether or not the float time is described as such on the Construction Schedule.

Contractor shall submit a weekly progress schedule to Engineer which sets forth specific work to be performed the following week.

The Contractor shall utilize and comply with the Contractor's Construction Schedule. The Contractor shall not be entitled to any adjustment in the Contract Time, the Contractor's Construction Schedule, or the Contract Sum, or to any additional payment of any sort by reason of the loss or use of any float time, including time between the Contractor's anticipated completion date and end of the Contract Time, whether or not the float time is described as such on the Contractor's Construction Schedule. The Owner owns all float days.

Should the Contractor fail to meet any scheduled date as shown on the current Contractor's Construction Schedule, the Contractor shall, if requested, be required at its own expense to submit within 10 days of the request an updated Contractor's Construction Schedule. If the Contractor's progress indicates to the Owner that the Work will not be Substantially Completed within the Contract Time, the Contractor shall, at its own expense, increase its work force and working hours to bring the actual completion dates of the activities into conformance with the Contractor's Construction Schedule and Substantial Completion within the Contract Time. The Contractor shall also submit a revised Contractor's Construction Schedule at its own expense within ten days of notice from the Engineer that the sequence of work varies significantly from that shown on the Contractor's Construction Schedule. Neither the Owner nor the Engineer will, however, review the substance or sequence of the Contractor's Construction Schedule.

The Contractor shall, within 7 days of the event, notify the Owner and Engineer in writing of any proposed changes in the Contractor's Construction Schedule or the Contract Time and of any event which could delay performance or supplying of any item of the Work and shall indicate the expected duration of the delay, the anticipated effect of the delay on the Contractor's Construction Schedule, and the action being taken to correct the delay situation. In the event the Contractor is entitled to a change in the Contract Time, the adjustment to the Contract Time shall be limited to the change in the critical path of construction activities.

The Contractor shall attain Ready for Final payment of the Work in accordance with the Contract within 20 days after the date of Substantial Completion.

#### 1.04 SUBMITTAL SCHEDULE

- A. General: Prepare a complete schedule of work-related submittals. Submit with the fully developed progress schedule. Correlate submittal schedule with listing of principal subcontractors, and with the "listing of products" or "procurement schedule" as specified in "Products and Substitutions" sections and elsewhere in Contract Documents.
- B. Form: Prepare schedule in chronological sequence of "first submittals". Show category of submittal, name of subcontractor, generic description of work covered, related section numbers, activity or event number on progress schedule, scheduled date for first submission, and blank columns for actual date of submittal, resubmittal, and final release or approval by ENGINEER.

#### 1.05 PROGRESS MEETINGS AND REPORTING

- A. General: In addition to specific coordination and pre-installation meetings for each element of work, and other regular project meetings for other purposes, hold general progress meeting each month with time coordinated with preparation of payment request. Require each entity then involved in planning, coordination or performance of work to be properly represented at each meeting. Review each entity's present and future needs including interface requirements, time sequences, deliveries, access, site utilization, temporary facilities and services, hours of work, hazards and risks, housekeeping, change orders, and documentation of information for payment requests. Discuss whether each element of current work is ahead of schedule, on time, or behind schedule in relation with updated progress schedule. Determine how behind schedule work will be expedited, and secure commitments from entities involved in doing so. Discuss whether schedule revisions are required to ensure that current work and subsequent work will be completed within Contract Time. Review everything of significance which could affect progress of the work.
  - 1. Initial Progress Meeting: Schedule initial progress meeting, recognized as "Pre-Construction Conference", for a date not more than 20 days after the Effective Date of the Agreement. Use it as an organizational meeting, and review responsibilities and personnel assignments.

2. Schedule Updating: Immediately following each progress meeting, where revisions to progress schedule have been made or recognized, revise progress schedule. Reissue revised schedule concurrently with report or each meeting.

#### 1.06 UNIT PRICE SCHEDULE

- A. General: Refer to individual sections of specifications for units of work where establishment of unit prices is required; methods of measurement and pricing are specified therein. Prepare a schedule of Contract-established unit prices, within 15 days of date of commencement of Contract Time, and distribute to OWNER, ENGINEER, and each entity involved in performance of work where established unit prices could possibly come into force and effect.

Prepare schedule of establishment, unit prices to show generic name, unit measure, price per unit, related specification sections, and subcontractor (if any) assigned the work so named.

1. The OWNER will measure the CONTRACTOR's work-in-place which involves use of established unit prices. The CONTRACTOR may at his own expense have the work measured by independent surveyor acceptable to OWNER.

#### 1.07 SCHEDULE OF VALUES

- A. General: Prepare schedule of values, in coordination with preparation of progress schedule. Correlate line items with other administrative schedules and forms required for the work, including progress schedule, payment request form, listing of subcontractors, listing of products and principal suppliers and fabricators, and schedule of submittals. Provide breakdown of Contract Price in sufficient detail to facilitate continued evaluation of payment requests and progress reports. Break down principal subcontract amounts into several line items. Round off to nearest whole dollar, but with total equal to Contract Price. Submit three copies of schedule of values to ENGINEER.

- B. Material/Fabrication Values: For each unit of work where payment requests will be made on account of materials or equipment purchased/fabricated/delivered but not yet installed, show "initial value" for payment request and "value added" for subsequent stage or stages of completion on that unit of work.

- C. Time Coordination: In coordination of initial submittals and other administrative "start-up" activities, submit schedule of values to ENGINEER at earliest feasible date, but in no case later than 7 days before initial payment request is to be submitted.

Listing: Arrange schedule with columns to indicate generic name of item, related specification sections, subcontractor, supplier/manufacturer/fabricator, change orders (numbers) which have affected value, dollar value or item, and percentage of Contract Price (to nearest one-hundredth percent and adjusted to total 100 percent).

- D. Schedule Updating: Update and resubmit schedule of values when change orders affect listing and when actual performance of the work involves necessary changes of substance to values previously listed.

## 1.08 PAYMENT REQUESTS

- A. General: Except as otherwise indicated, sequence of progress payments is to be regular, and each must be consistent with previous applications and payments. It is recognized that certain applications involve extra requirements, including initial application, application at times of substantial completion, and final payment application.
1. Payments will be made for work and labor performed and materials furnished under the Contract according to the schedule of rates and prices and the specifications attached and made a part thereof. Partial payments under the Agreement will be made at the request of the Contractor once each month, based upon partial estimates by the ENGINEER. There will be reserved and retained from monies earned by the CONTRACTOR, as determined by such monthly estimates a sum of five percent of all amounts. The CONTRACTOR can request the retained monies to be deposited in an interest bearing escrow account by the OWNER at an institution of the CONTRACTOR's choice as explained in the Instructions to Bidders.
  2. Payment of the retained percentage shall be withheld for a period of thirty days following the final acceptance of the work by the OWNER, and shall be paid to the CONTRACTOR at the expiration of said thirty days in the event that no claims as provided by law have been filed against such funds, and provided further that releases have been obtained from all departments and agencies having jurisdiction over the activities of the CONTRACTOR.
  3. Cost of materials, properly stored, protected and insured at or near the site(s) of the work will be paid on monthly estimates. In preparing the monthly estimates, advancement will be made for 90 percent of the cost of such materials, as evidenced by invoices to the CONTRACTOR. Advancement will not be made for any item of material amounting to less than \$500.00. All materials must conform to the requirements of the specifications; however, advancement for materials will not constitute acceptance.
- B. Payment Application Times: As agreed upon between OWNER, ENGINEER and CONTRACTOR during the Pre-Construction Conference.
1. Payment Application Forms: Use forms approved by OWNER.
- C. Application Preparation: Except as otherwise indicated, complete every entry provided for on the Form. Incomplete applications will be returned by ENGINEER without action. Entries must match current data of schedule of values and progress schedule and report. List must include amounts of change orders issued prior to last day of the "period of construction" covered by application.

- D. Initial Payment Application: The principal administrative actions and submittals which must precede or coincide with submittal of first payment application can be summarized as follows, but not necessarily by way of limitation:
1. Listing of subcontractors and principal suppliers and fabricators.
  2. Schedule of values.
  3. Progress schedule (preliminary if not final).
  4. Schedule of principal products.
  5. Schedule of unit prices.
  6. Schedule of submittals (preliminary if not final).
  7. Listing of CONTRACTOR's staff assignments and principal consultants.
  8. Copies of acquired building permits and similar authorizations and licenses from governing authorities for current performance of the work.
  9. Initial progress report, including report of pre-construction meeting.
- E. Application at Time of Substantial Completion: Following issuance of ENGINEER's final "Certification of Substantial Completion", and also in part as applicable to prior certificates on portions of completed work as designated, a "special" payment application may be prepared and submitted by CONTRACTOR. The principal administrative actions and submittals which must proceed or coincide with such special applications can be summarized as follows, but not necessarily by way of limitation:
1. Warranties (guarantees), maintenance agreements and similar provisions of Contract Documents.
  2. Test/adjust/balance records, maintenance instructions, meter readings, start-up performance reports, and similar changeover information germane to OWNER's occupancy, use, operation and maintenance of completed work.
  3. Final cleaning of the work.
  4. Advice to OWNER on coordination of shifting insurance coverage, including proof of extended coverage as required.
  5. Listing of CONTRACTOR's incomplete work, recognized as exceptions to ENGINEER's certificate of substantial completion.
- F. Final Payment Application: The administrative actions and submittals which must precede or coincide with submittal of final payment application can be summarized as follows, but not necessarily by way of limitation:
1. Completion of project closeout requirements.
  2. Completion of items specified for completion beyond time of substantial completion (regardless of whether special payment application was previously made).
  3. Assurance, satisfactory to OWNER, that unsettled claims will be settled and that work not actually completed and accepted will be completed without undue delay.
  4. Transmittal of required project construction record to OWNER.
  5. Proof, satisfactory to OWNER, that taxes, fees and similar obligations of CONTRACTOR have been paid.
  6. Removal of temporary facilities, services, surplus materials, rubbish and similar elements.

7. Change over of locks and other CONTRACTOR's access provisions to OWNER's property.
  8. Consent of surety for final payment.
- G. Application Transmittal: Submit three executed copies of each payment application. Transmit each copy with a transmittal form listing those attachments, and recording appropriate information related to application.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

PART 4 - MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01152 --



# SECTION 01160 MOBILIZATION

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### 1.02 DESCRIPTION OF WORK

- A. Mobilization consists of pre-construction expenses and the costs of preparatory work and operations performed by the CONTRACTOR which occur before 10 percent of the total original contract amount is earned from other bid items. Items not covered in this section include, but are not limited to:
  - 1. Any portion of the work covered by specific bid item or incidental work which is to be included in a bid item or items.
  - 2. Profit, interest on borrowed money, overhead or management costs.

## PART 2 - PRODUCTS (NOT APPLICABLE).

## PART 3 - EXECUTION (NOT APPLICABLE).

## PART 4 - MEASUREMENT AND PAYMENT

- 4.01 Based on the lump sum bid price for "Mobilization", partial payment will be made as follows:
  - A. When five percent of the awarded Contract Price is earned excluding mobilization and amounts paid for materials on hand, 50 percent of the amount bid for mobilization or 5 percent of the awarded Contract Price, whichever is less, will be paid.
  - B. When 10 percent of the awarded Contract Price is earned excluding mobilization and amounts paid for materials on hand, 100 percent of the amount bid for mobilization or 10 percent of the awarded Contract Price, whichever is less, will be paid.
  - C. Upon completion of all work, payment of any amount bid for mobilization in excess of 10 percent of the awarded contract price will be paid.

-- END OF SECTION 01160 --

# SECTION 01300 SUBMITTALS

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### 1.02 CORRESPONDENCE

- A. The CONTRACTOR shall submit the types of correspondence listed below:
  - 1. Subcontractors List: A complete list of all subcontractors and material suppliers furnishing materials in excess of \$2,500 shall be submitted prior to the submission of the first Application for Payment.
  - 2. Construction Progress Schedule:
    - a. Within 14 days of notice to proceed, submit to the ENGINEER a PDF of the proposed Construction Progress Schedule.
  - 3. Change Orders: In accordance with the General Conditions.
  - 4. Applications for Payment: Monthly, in accordance with the General Conditions.
- B. Within 10 days of the Effective Date of the Agreement the CONTRACTOR shall submit a preliminary schedule indication when Shop Drawings/submittals/samples will be submitted to the ENGINEER for review as indicated in paragraph 2.6.2 of the General Conditions. This schedule shall be reviewed by the ENGINEER and shall be acceptable to both the CONTRACTOR and ENGINEER at least 10 days prior to the submission of the CONTRACTOR's first application for payment as indicated in paragraph 2.9 of the General Conditions.

### 1.03 SHOP DRAWINGS/SUBMITTALS

- A. The CONTRACTOR shall review and approve all Shop Drawings/submittals prior to their submittal to the ENGINEER, in accordance with the General Conditions.
- B. The CONTRACTOR shall be required to submit a high resolution PDF of Shop Drawings and submittals, unless otherwise specified within individual technical specification sections, for all materials and equipment utilized on this project before ordering in accordance with Article 6 of the General Conditions and with the requirements listed below.
  - 1. Shop Drawings: CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawings submittals. All submittals will be identified as ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show ENGINEER the materials and equipment CONTRACTOR

proposes to provide and to enable ENGINEER to review the information for the limited purposes required by 1.03B(3) below.

2. Submittal Procedures:

- a. Before submitting each Shop Drawing, CONTRACTOR shall have determined and verified:
  - i) All field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto.
  - ii) All materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work.
  - iii) All information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have reviewed and coordinated each Shop Drawing with other Shop Drawings, and with the requirements of the Work and the Contract Documents.

- b. Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.
- c. At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawings or Sample submitted may have from the requirements of the Contract Documents. Such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each separate variation.

3. ENGINEER will review and approve Shop Drawings in accordance with the schedule of Shop Drawings submittals accepted by ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for in the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of separate items as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by the ENGINEER, and shall return the required number of corrected copies of Shop

Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

4. ENGINEER's review and approval of Shop Drawings shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required in 1.03B(2)c above and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of 1.03B(3) above.
5. Where a Shop Drawing is required by the Contract Documents or the schedule of Shop Drawings submissions accepted by ENGINEER as required by Contract Documents, any related work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of the CONTRACTOR.
6. Submittal schedule shall allow ENGINEER adequate time for review. The ENGINEER will provide timely review consistent with the quality and clarity of all Shop Drawings, submittals, and samples submitted by the CONTRACTOR.

The CONTRACTOR shall obtain the ENGINEER's written approval of the Shop Drawings, submittals, and samples before proceeding with the work they represent.

- C. No claim for an extra shall be based on work shown on the Shop Drawings. Shop Drawings are not checked for quantities of materials, dimensional accuracy, dimensions subject to field conditions, or numbers of items to be supplied. These shall be the sole responsibility of the CONTRACTOR.

PART 2 - PRODUCTS -- NOT APPLICABLE

PART 3 - EXECUTION – NOT APPLICABLE

PART 4 - MEASUREMENT AND PAYMENT

- 4.0 All costs associated with this section are considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01300 --

## **SECTION 01305**

### **LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

##### **1.02 LAWS TO BE OBSERVED**

- A. The CONTRACTOR shall always comply with all laws, ordinances, and regulations - Federal, State, or local - that affect work under the Contract. The CONTRACTOR shall indemnify, defend, and save harmless the OWNER (including any agents, officers, and employees) against any claims that may arise because the CONTRACTOR (or any employee of the CONTRACTOR or subcontractor or material man) violated a legal requirement.
- B. The CONTRACTOR shall be responsible for the safety of his/her workers and shall comply with safety and health standards such as Safety Standards for Construction Work (Chapter 296-155 WAC), General Safety and Health Standards (Chapter 296-24 WAC), General Occupational Health Standard (Chapter 296-62 WAC), and any other appropriate safety and health codes.
- C. In all cases of conflict between different safety regulations, the more stringent regulation shall apply.
- D. The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).
- E. The CONTRACTOR shall maintain at the project site(s) office, or other well-known place at the site(s), all articles necessary for providing first aid to the injured. The CONTRACTOR shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, person, including employees, who may have been injured on the project site(s). Employees should not be permitted to work on the project site(s) before the CONTRACTOR has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

- F. The CONTRACTOR shall have sole responsibility for the safety, efficiency, and adequacy of the CONTRACTOR's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The CONTRACTOR shall be solely and completely responsible for the conditions of the project site(s), including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the ENGINEER to conduct construction review of the CONTRACTOR's performance does not, and shall not, be intended to include review and adequacy of the CONTRACTOR's safety measures in, on, or near the project site(s).

Without usurping the authority of other agencies, the OWNER will cooperate with them in their efforts to enforce legal requirements. On noticing any violation of a legal requirement, the ENGINEER will notify the CONTRACTOR in an effort to achieve voluntary compliance. The ENGINEER may also notify the agency responsible for enforcement if the ENGINEER deems that action necessary to achieve compliance with legal requirements. The ENGINEER will also help the enforcing agency obtain CONTRACTOR compliance to the extent such help is consistent with the provisions of Article 9 of the General Conditions.

- G. The OWNER will not adjust payment to compensate the CONTRACTOR for changes in legal requirements unless those changes are specifically within the scope of RCW 39.04.120. For changes under RCW 39.04.120, the OWNER will compensate the CONTRACTOR by negotiated change order as provided in Article 10 of the General Conditions.

#### 1.03 STATE SALES TAX

- A. General: The Washington State Department of Revenue has issued special rules on the State sales tax. The OWNER will pay the retained percentage only if the CONTRACTOR has obtained from the Washington State Department of Revenue a certificate showing that all Contract related taxes have been paid (RCW 60.28.050). The OWNER may deduct from its payments to the CONTRACTOR any amount the CONTRACTOR may owe the Washington State Department of Revenue, whether the amount owed relates to this Contract or not. Any amount so deducted will be paid into the proper State fund.

#### 1.04 SANITATION

- A. The CONTRACTOR shall provide employees with all accommodations required by the State Department of Social and Health Services and other agencies. These accommodations shall be kept clean, neat and sanitized, and shall not create any public nuisance. The CONTRACTOR shall keep all project sites clean, properly dispose of all refuse, and leave each site in a neat and sanitary condition.

#### 1.05 FISH & WILDLIFE AND ECOLOGY REGULATIONS:

- A. General: Throughout the work, the CONTRACTOR shall comply with all current rules of the State Department of Fish and Wildlife, and the State Department of Ecology. Some, though not all, of these rules are summarized below. Any of these State Departments may, without prejudice to the OWNER, add rules as needed to protect game, fish, or the environment.

- B. Fish & Wildlife: In doing the work, the CONTRACTOR shall not degrade water in a way that would harm fish. (Criteria: Washington State Water Quality Regulations).
- C. Ecology: In doing the work, the CONTRACTOR shall:
  - 1. Get a waste discharge permit from the Department of Ecology before:
    - a. Discharging water from excavations into a ground or surface waterway when the water contains turbidity, silt, or foreign materials.
  - 2. Give both, the OWNER and ENGINEER, a copy of each waste discharge permit before the work begins.
  - 3. Control drainage and erosion to reduce waterway pollution.
  - 4. Dispose of, in ways that will prevent their entry into State waters all:
    - a. Toxins (including creosote, oil, cement, concrete and equipment wash water)
    - b. Debris, overburden, and other waste materials.
  - 5. Notify the Department of Ecology immediately should oil, chemicals or sewage spill into State waters.
- D. Air Quality: The CONTRACTOR shall comply with all rules of local air pollution authorities. If there are none, air-quality rules of the State Department of Ecology shall govern the work.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All work associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01305 --

# **SECTION 01400**

## **CONTRACTOR'S RESPONSIBILITY FOR WORK AND DAMAGE**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 CONTRACTOR'S RESPONSIBILITY FOR WORK**

- A. General: All work and material for the Contract, including any change order work, shall be at the sole risk of the CONTRACTOR until the entire improvement has been completed as determined by the ENGINEER, except as provided in this section.

The CONTRACTOR shall rebuild, repair, restore, and make good all damages to any portion of the permanent or temporary work occurring before the physical completion date and shall bear all the expense to do so, except damage to the permanent work caused by: a) acts of God, such as earthquake, floods, or other cataclysmic phenomenon of nature, or b) acts of the public enemy or of governmental authorities, or c) slides in cases where Standard Specification Section 2-03.3(11) is applicable; Provided, however, that these exceptions shall not apply should damages result from CONTRACTOR's failure to take reasonable precautions or to exercise sound engineering and construction practices in conducting the work.

If the performance of the work is delayed as a result of damage by others, an extension of time will be evaluated in accordance with Article 12 of the General Conditions of the Contract Documents.

Nothing contained in this section shall be construed as relieving the CONTRACTOR of responsibility for, or damage from, the CONTRACTOR's operations or negligence, nor shall the CONTRACTOR be relieved from full responsibility for making good any defective work or materials as provided for in Article 13 of the General Conditions of the Contract Documents.

- B. Relief of Responsibility for Completed Work: Upon written request the CONTRACTOR may be relieved of the duty of maintaining and protecting certain portions of the work, as described below, which have been completed in all respects in accordance with the requirements of the Contract. If the ENGINEER provides written approval, the CONTRACTOR will be relieved of the responsibility for damage to said completed portions of the work resulting from use by public traffic or from the action of the elements or from any other cause, but not from damage resulting from the CONTRACTOR's operations or negligence.
- C. Relief of Responsibility for Damage by Public Traffic: When it is necessary for public traffic to utilize a roadway facility during construction, the CONTRACTOR will be relieved of responsibility for damages to permanent work by public traffic under the following circumstances:



1. The work is in accordance with the Drawings, and
2. The work is on a section of roadway required by the Contract to be opened to public traffic, and
3. The traffic control is in accordance with the approved traffic control drawings.

If traffic is relocated to another section of roadway, the CONTRACTOR shall resume responsibility for the work until such time as the section of roadway is again open to public traffic or the CONTRACTOR submits a written request for work that is completed to a point where relief is requested and granted in accordance with Section 01400-1.02(B) of this specification section.

- D. Repair of Damage: The CONTRACTOR shall promptly repair all damage to either temporary or permanent work as directed by the ENGINEER. For damages to work where relief has been requested and granted in accordance with Specification Sections 01400-1.02(A), 01400-1.02(B), and 01400-1.02(C), payment will be limited to repair of damaged work only. No payment will be made for delay or disruption to the work. The OWNER may elect to accomplish repair by OWNER forces or other means.

### 1.03 RESPONSIBILITY FOR DAMAGE

- A. The OWNER, and all officers and employees of the OWNER, will not be responsible in any manner for any loss that may happen to the work or any part; for any loss of material or damage to any of the materials or other things used or employed in the performance of the work; for injury or death of any persons, either workers or the public; or for damage to the public for any cause which might have been prevented by the CONTRACTOR, or the workers, or anyone employed by the CONTRACTOR.
- B. The CONTRACTOR shall be responsible for any liability by law for injuries to, or the death of, any persons or damages to property resulting from any cause whatsoever during the performance of the work, or before final acceptance.
- C. Subject to the limitations in this section, the CONTRACTOR shall indemnify, defend, and save harmless the OWNER, and all officers and employees of the OWNER from all claims, suits, or actions brought for injuries to, or death of, any persons or damage resulting from construction of the work or in consequence of any negligence regarding the work, the use of any improper materials in the work, caused in whole or in part by any act or omission by the CONTRACTOR or the agents or employees of the CONTRACTOR during performance or at any time before final acceptance. In addition to any remedy authorized by law, the OWNER may retain so much money due the CONTRACTOR as deemed necessary by the ENGINEER to ensure indemnification until disposition has been made of such suits or claims.
- D. The CONTRACTOR will not be required to indemnify, defend, or save harmless the indemnitee as provided in the preceding paragraphs of this section if the claim, suit, or action for injuries, death, or damages is caused by the sole negligence of the indemnitee. Where such claims, suits, or actions result from the concurrent negligence of a) the CONTRACTOR's agent or employees, the indemnity provisions provided in the preceding paragraphs of this section shall be valid and enforceable only to the extent of the CONTRACTOR's negligence or the negligence of its agents or employees.

The CONTRACTOR shall bear sole responsibility for damage to completed portions of the project and to property located off the project caused by erosion, siltation, run-off, or other related items during the construction of the project. The CONTRACTOR shall also bear sole responsibility for any pollution of rivers, streams, ground water, or other waters which may occur as a result of construction operations.

- E. The CONTRACTOR shall exercise all necessary precautions throughout the life of the project to prevent pollution, erosion, siltation, and damage to property.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01400 --

# **SECTION 01500 TEMPORARY FACILITIES AND CONTROLS**

## **PART 1 - GENERAL**

### **RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 – General Requirements, apply to work of this section.

### **1.02 SUMMARY**

- A. Section Includes: Furnishing, maintaining, and removing construction facilities and temporary controls, including temporary utilities, construction aids, barriers enclosures, security, access roads, temporary controls, field offices and sheds after construction.

### **1.03 REFERENCES**

- A. American Concrete Institute, ACI:
  - 1. 306 Cold Weather Concreting.

### **1.04 TEMPORARY UTILITIES**

- A. Temporary Electrical Power:

- 1. Temporary electrical service for job site power shall be obtained from the local power utility, Lewis County PUD.

- B. Temporary Electrical Lighting:

- 1. In work areas, provide temporary lighting sufficient to maintain lighting levels during working hours not less than lighting levels required by OSHA and state agency which administers OSHA regulations where Project is located.
  - 2. When available, permanent lighting facilities may be used in lieu of temporary facilities.

- C. Temporary Heating, Cooling, and Ventilating:

- 1. Heat and ventilate work areas to protect the Work from damage by freezing, high temperatures, weather, and to provide safe environment for workers.
  - 2. When placing concrete in cold weather, use only vented heaters in accordance with ACI 306.
  - 3. When available, permanent heating system may be utilized when sufficiently completed to allow safe operation.

- D. Temporary Water:

- 1. Water Connections for Construction and Dust Control: The CONTRACTOR shall not make connection to, or draw water from, any fire hydrant or pipeline without first

obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. The CONTRACTOR shall connect to an existing fire hydrant with a meter provided by the City of Chehalis after payment of a deposit in the amount of \$150.00.

E. Temporary Sanitary Facilities:

1. Provide suitable and adequate sanitary facilities that are in compliance with applicable Laws and Regulations.
2. At completion of the Work, remove sanitary facilities and leave site in neat and sanitary condition.

F. Temporary Fire Protection: Provide sufficient number of fire extinguishers of type and capacity required to protect the Work and ancillary facilities.

G. First Aid: Post first aid facilities and information posters conforming to requirements of OSHA and other applicable Laws and Regulations in readily accessible locations.

1.05 CONSTRUCTION AIDS

A. General:

1. Use construction hoists, elevators, scaffolds, stages, shoring, and similar temporary facilities of ample size and capacity to adequately support and move loads.
2. Provide railings, kick plates, enclosures, safety devices, and controls required by Laws and Regulations and as required for adequate protection of life and property.
3. Design temporary supports with adequate safety factor to assure adequate load bearing capability.
  - a. When requested, submit design calculations by professional registered engineer prior to application of loads.
  - b. Submitted design calculations are for information and record purposes only.

B. Accident Prevention:

1. Exercise precautions throughout construction for protection of persons and property.
2. Observe safety provisions of applicable Laws and Regulations.
3. Guard machinery and equipment, and eliminate other hazards.
4. Make reports required by authorities having jurisdiction, and permit safety inspections of the Work.
5. Before commencing construction Work, take necessary action to comply with provisions for safety and accident prevention.

C. Barricades:

1. Place barriers at ends of excavations and along excavations to warn pedestrian and vehicular traffic of excavations.
2. Provide barriers with flashing lights after dark.
3. Keep barriers in place until excavations are entirely backfilled and compacted.

4. Barricade excavations to prevent persons from entering excavated areas in streets, roadways, parking lots, treatment plants, or other public or private areas.
- D. Warning Devices and Barricades: Adequately identify and guard hazardous areas and conditions by visual warning devices and, where necessary, physical barriers.
1. Devices shall conform to minimum requirements of OSHA and State agency which administers OSHA regulations where Project is located.
- E. Hazards in Public Right-of-Way:
1. Mark at reasonable intervals, trenches and other continuous excavations in public right-of-way, running parallel to general flow of traffic, with traffic cones, barricades, or other suitable visual markers during daylight hours.
    - a. During hours of darkness, provide markers with torches, flashers, or other adequate lights.
  2. At intersections or for pits and similar excavations, where traffic may reasonably be expected to approach head on, protect excavations by continuous barricades.
    - a. During hours of darkness, provide warning lights at close intervals.
- Submit a traffic control plan in accordance with Section 01570 – TRAFFIC PROTECTION AND CONTROL.
- F. Hazards in Protected Areas: Mark or guard excavations in areas from which public is excluded, in manner appropriate for hazard.
- G. Above Grade Protection: On multi-level structures, provide safety protection that meets requirements of OSHA and State agency which administers OSHA regulations where Project is located.
- H. Protect existing structures, trees, shrubs, and other items to be preserved on Project site from injury, damage or destruction by vehicles, equipment, worker or other agents with substantial barricades or other devices commensurate with hazards.

#### 1.06 SECURITY

- A. Make adequate provision for protection of the Work area against fire, theft, and vandalism, and for protection of OWNER's maintenance personnel against exposure to injury.

#### 1.07 TEMPORARY CONTROLS

- A. Noise Control: Comply with all controls and noise levels established by agencies having jurisdiction.

#### 1.08 REMOVAL

- A. Remove temporary buildings and furnishings before inspection for Final Completion or when directed.
- B. Clean and repair damage caused by installation or use of temporary facilities.

- C. Remove underground installations to minimum depth of 24-inches and grade to match surrounding conditions.
- D. Restore existing facilities used during construction to specified or original condition.

1.09 OPERATIONS AND TERMINATIONS

- A. Inspections: Prior to placing temporary utility services into use, the CONTRACTOR shall inspect and test each service and arrange for governing authorities' required inspection and tests, and obtain required certifications and permits for use thereof.
- B. Protection: The CONTRACTOR shall maintain distinct markers for underground lines, and protect from damage during excavating operations.
- C. Termination and Removal: When need for a temporary utility service or a substantial portion thereof has ended, or when its service has been replaced by use of permanent services, or not later than time of substantial completion, the CONTRACTOR shall promptly remove installation unless requested by ENGINEER to retain it for a longer period. The CONTRACTOR shall complete and restore WORK which may have been delayed or affected by installation and use of temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces.
- D. Removal of Water Connections: Before final acceptance of the Work on the project, all temporary connections and piping installed by the CONTRACTOR shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the ENGINEER and to the agency owning the affected utility.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01500 --

## **SECTION 01510**

### **CONTRACTOR'S RESPONSIBILITY FOR UTILITIES**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

##### **1.02 UTILITIES AND SIMILAR FACILITIES**

- A. Pursuant to RCW 19.122, an act relating to underground utilities and prescribing penalties, the CONTRACTOR shall:
  - 1. Call the utilities underground location center (Phone: 800/424-5555) for field location of the utilities, and
  - 2. Not begin excavation until all known underground facilities in the vicinity of the proposed excavation have been located and marked.
- B. Location and dimensions shown on the Drawings for existing utilities and facilities are in accordance with available information without uncovering, measuring, or other verification. Those shown are for the convenience of the CONTRACTOR only and no responsibility is assumed by either the OWNER or the ENGINEER for their accuracy or completeness.
- C. If a utility is known or suspected of having underground facilities within an area of the proposed excavation, and that utility is not a subscriber to the utilities underground location center then the CONTRACTOR shall give individual notice to that utility.
- D. The CONTRACTOR shall support and protect by timbers or otherwise, all pipes, conduits, poles, wires or other apparatus which may be in any way affected by the construction work and do everything to support, sustain and protect the same under, over, along or across the work. In case any of said pipes, conduits, poles, wires or apparatus should be damaged, they shall be repaired by the authorities having control of same, and the expense of such repairs shall be charged to the CONTRACTOR.
- E. The CONTRACTOR shall further be responsible for any damage done to any street or other public property, or to any private property by reason of the breaking of any water pipe, sewer or gas pipe, electric conduit, or other utility by or through his negligence.
- F. Should it be necessary for any utility to be moved or replaced as it relates to pipe placement on this project, it will be the CONTRACTOR's responsibility to coordinate his operation with the affected utility. The utility shall perform the relocation unless otherwise described in these specifications. Any delays relating to this matter will not be subject to claim for additional compensation by the CONTRACTOR.

- G. No utility, private or public, shall be moved to accommodate the CONTRACTOR's equipment or his method of operation when such utility does not interfere with the improvement under construction unless the costs of such removal shall be at the CONTRACTOR's expense.
- H. The CONTRACTOR shall not be expected to bear any costs or perform any utility relocation unless specified in the Bid Form as a bid item or as described above.

1.03 FIELD RELOCATION

- A. During the progress of construction, minor relocations in line and grade may be necessary. Such relocations shall be made only by direction of the ENGINEER. Unforeseen obstructions encountered as the result of such relocations will not be subject to claim for additional compensation than would have been the case had the obstruction been encountered along the original location.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01510 --



## **SECTION 01545 PROTECTION AND RESTORATION OF PROPERTY**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 PRIVATE/PUBLIC PROPERTY**

- A. The CONTRACTOR shall protect private and public property on or in the vicinity of the project site(s). The CONTRACTOR shall ensure that it is not removed, damaged, destroyed, or prevented from being used unless the Contract so specifies.

Property includes land, utilities, trees, landscaping, improvements legally on the right-of-way, markers, monuments, buildings, structures, pipe, conduit, sewer or water lines, signs, and other property of all description whether shown on the Drawings or not.

- B. If the ENGINEER requests in writing, or if otherwise necessary, the CONTRACTOR shall install protection, acceptable to the ENGINEER, for property such as that listed in the previous paragraph. The CONTRACTOR is responsible for locating all property that is subject to damage by the construction operation.
- C. If the CONTRACTOR, including agents and employees of the CONTRACTOR, damages, destroys, or interferes with the use of such property, the CONTRACTOR shall restore it to original condition. The CONTRACTOR shall also halt any interference with the property's use. If the CONTRACTOR refuses or does not respond immediately, the ENGINEER may have such property restored by other means and subtract the cost from money that will be or is due the CONTRACTOR.
- D. The CONTRACTOR shall, at his own expense, completely repair any damage to private or public property caused by his operations.
- E. On private property where construction work is performed the CONTRACTOR shall restore all disturbed areas to equal or better than pre-construction condition. The CONTRACTOR shall obtain a written release from the private property owner for all work done on said private property before the final Contract payment is made by the OWNER.

#### **1.03 ARCHAEOLOGICAL AND HISTORICAL OBJECTS:**

- A. The CONTRACTOR shall adhere to the National Historic Preservation Act of 1966 and 36 CFR 800 which provide for the preservation of potential historical architectural, archaeological, or cultural resources (hereinafter called "cultural resources") and fair compensation to the CONTRACTOR for delays resulting from such cultural resource investigations.

The CONTRACTOR shall adhere to the National Historic Preservation Act of 1966 and 36 CFR 800 which may require but is not limited to an archaeological survey. This includes waste disposal sites, staging areas, laydown areas and access roads obtained and utilized by the CONTRACTOR outside of the identified project site.

In the event that potential cultural resources are discovered during subsurface excavations at the site of construction, the following procedures shall be instituted:

1. The OWNER shall issue a Work Suspension Order directing the CONTRACTOR to cease all construction operations at the location of such potential cultural resources find.
2. If archaeological findings include human remains, the ENGINEER shall contact a qualified archaeologist in consultation with the State Historic Preservation Officer (SHPO) to evaluate the remains.
3. Such Work Suspension Order shall be effective until such time as a qualified archaeologist can be called by the ENGINEER to assess the significance of these potential cultural resources and make recommendations to the SHPO. If the archaeologist, in consultation with SHPO, determines that the potential find is a significant cultural resource, the OWNER shall extend the duration of the Work Suspension Order.
4. Suspension of work at the location of the find shall not be grounds for any claim by the CONTRACTOR unless the suspension extends beyond the Contract working days allowed for the project, in which case the OWNER will make an adjustment for increased cost of performance of the Contract.
5. The Inadvertent Discovery Plan is included as Appendix C.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01545 --

## **SECTION 01562 DUST CONTROL AND USE OF EXPLOSIVES**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 DUST CONTROL**

- A. It shall be the CONTRACTOR's responsibility to control dust by water or dust palliative, as ordered by the ENGINEER, for the alleviation or prevention of dust nuisance.

#### **1.03 USE OF EXPLOSIVES**

- A. Blasting will not be permitted.

### **PART 2 - PRODUCTS (NOT APPLICABLE).**

### **PART 3 - EXECUTION (NOT APPLICABLE).**

### **PART 4 – MEASUREMENT AND PAYMENT**

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01562 --

## **SECTION 01568**

### **TEMPORARY WATER POLLUTION/EROSION CONTROL**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

##### **1.02 DESCRIPTION OF WORK**

- A. This work consists of temporary measures specified in this section, proposed by the CONTRACTOR and approved by the ENGINEER, or ordered by the ENGINEER as work proceeds. This work is intended to prevent, control and stop water pollution or erosion within the project, thereby protecting the work, nearby land, streams, and other bodies of water.
- B. Controlling pollution, erosion, run-off, and related damage may require the CONTRACTOR to perform temporary work items including but not limited to:
  - 1. Provide ditches, berms, culverts, and other measures to control surface water,
  - 2. Building dams, settling basins, energy dissipaters, and other measures, to control downstream flows,
  - 3. Controlling groundwater found during construction, or
  - 4. Covering or otherwise protecting slopes until permanent erosion-control measures are working.
- C. Before any work begins, the CONTRACTOR shall obtain the ENGINEER's approval on a plan for temporary water pollution/erosion control. The plan shall show the schedule for all erosion-control work, whether permanent as required by the Contract or temporary as proposed by the CONTRACTOR. The plan shall cover all areas the CONTRACTOR's work may affect inside and outside the limits of the project (including all OWNER provided sources, disposal sites, haul roads, nearby lands, streams, and other bodies of water). Before this plan has been approved, the CONTRACTOR shall do no clearing and grubbing or earthwork unless the ENGINEER approves in writing. The CONTRACTOR shall revise and update the plan whenever the ENGINEER so requests in writing.
- D. The CONTRACTOR shall allow at least five days for the ENGINEER's review of any original or revised plan. Failure to approve all or part of any such plan shall not make the OWNER liable to the CONTRACTOR for any work delays.

To the degree possible, the CONTRACTOR shall coordinate this temporary work with any permanent drainage and erosion control work the Contract requires.

- E. If the OWNER, under Article 8 of the General Conditions, orders the work suspended for an extended time, the CONTRACTOR shall, before the OWNER assumes

maintenance responsibility, make every effort to control erosion, pollution, and run-off during shutdown.

- F. If natural elements rut or erode the slope, the CONTRACTOR shall restore and repair the damage, with the eroded material where possible, and clean up any remaining material in ditches and culverts. If the ENGINEER orders replacement with more or other materials, unit Contract prices will cover the quantities needed.
- G. If the ENGINEER anticipates water pollution or erosion, the CONTRACTOR shall schedule the work so that grading and permanent erosion control occur immediately following clearing and grubbing. If conditions prevent such scheduling, the ENGINEER will require temporary control measures between work stages.
- H. The ENGINEER will not require the area of excavation, borrow, and embankment work to exceed the CONTRACTOR's ability to meet the schedule for finish grading, mulching, seeding, and other permanent erosion control work.
- I. The ENGINEER may require temporary erosion control measures if it appears pollution or erosion may result from weather, the nature of the materials, or progress on the work. The ENGINEER may also require permanent erosion control work to be done with or immediately after grading.
- J. When temporary control devices are no longer needed, the CONTRACTOR shall remove them and finish the areas they occupied as the ENGINEER directs.
- K. Wastewater from project activities and water removed from within the work area shall be routed to an area landward of the ordinary high water line to allow removal of fine sediment and other contaminants prior to being discharged to any stream.
- L. Equipment used shall be free of external petroleum-based products while working around any stream. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working below the ordinary high water line. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.
- M. Equipment crossings of any stream are not authorized.
- N. Nothing in this section shall relieve the CONTRACTOR from complying with other Contract requirements.
- O. The CONTRACTOR shall bear full responsibility for temporary water pollution control in all sources of material, disposal sites, and haul roads the CONTRACTOR provides.

### 1.03 TURBID WATER TREATMENT BEFORE DISCHARGE

- A. Determination of turbidity in surface waters shall be at the discretion of the ENGINEER; for Lake Class Receiving Waters, turbidity shall not exceed 5 NTU (Nephelometric Turbidity Units) over background conditions; for Class AA and Class A Waters, turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50

NTU or less, or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU; for other classes of water, refer to WAC 173-201-045.

- B. The term turbidity is the optical property of a water sample demonstrating the scattering and absorption of light caused by suspended materials in the water. It is expressed in Nephelometric Turbidity Units and measured with a calibrated turbidimeter.
- C. Discharge to a State waterway caused by drainage of stockpiles, or dewatering of pits and excavations shall not increase the existing turbidity of the receiving waters.
- D. Turbid waters from the project site(s) shall be treated before being discharged into stream or other State waters. Turbidity may be removed by the use of lagoons or holding ponds, settling basins, overflow weir, polymer water treatment, discharging to ground surface, by percolation, evaporation or by passing through gravel, sand or fiber filters.

#### 1.04 EROSION CONTROL

- A. Temporary erosion control shall be exercised by minimizing exposed areas and slopes until permanent measures are effective. Plastic sheet covering shall be placed over exposed ground areas to protect from rain erosion. Other alternative methods for erosion control under certain situations may include netting, mulching with binder, and seeding.
- B. Should rutting and erosion occur the CONTRACTOR shall be responsible for restoring damaged areas and for clean-up of eroded material including that in ditches, catch basins, manholes, and culverts and other pipes.

#### 1.05 VEHICLE AND EQUIPMENT WASHING

- A. Water used for washing vehicles and equipment shall not be allowed to enter storm drains, streams or other State waters unless separation of petroleum products, fresh concrete products or other deleterious material is accomplished prior to discharge. Detergent solution may be discharged into sanitary sewers or allowed to be held on the ground for percolation. Steam cleaning units shall provide a device for oil separation.

#### 1.06 OIL AND CHEMICAL STORAGE AND HANDLING

- A. 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.

#### 1.07 SEWAGE

- A. 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 sewer 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 project site(s) and deposited in 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.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

4.01 All costs associated with providing and maintaining temporary water pollution/erosion control measures in accordance with the plan developed and presented by the CONTRACTOR, and approved by the ENGINEER shall be considered incidental to the Contract and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01568 --

# **SECTION 01570 TRAFFIC PROTECTION AND CONTROL**

## **PART 1 - GENERAL**

### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### **1.02 DESCRIPTION OF WORK:**

- A. The CONTRACTOR shall provide all labor, equipment and materials to furnish, install, move, operate, and maintain signs, barricades, and other traffic control devices throughout the area affected by the project.

### **1.03 SUBMITTALS:**

- A The CONTRACTOR shall submit the following as specified and in accordance with the provision of Section 01300 herein.
  - 1. A minimum of two (2) weeks in advance of the implementation schedule, the CONTRACTOR shall submit to the OWNER for approval, a proposed traffic control plan for protective and directional measures. No work shall be started on any stage of construction until the OWNER has approved the traffic control plan and all approved traffic control devices are in place.
  - 2. Each traffic control plan shall outline the method and frequency that traffic is to be re-routed if necessary to meet the requirements of the referenced standards and performance required specified herein. Each plan shall include a map showing routes, signing, barricades and flagging personnel in conformance with the documents listed in paragraph 2.01A of this section. Traffic Control or warning signs shall be posted at all cross streets.
  - 3. During the performance of the work, the CONTRACTOR shall submit any proposed revisions to the traffic control plan to the OWNER for approval prior to making the revision.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

- A. Flagging, signs, and all other traffic control devices furnished or provided shall conform to the standards established in the latest adopted edition of the "Manual on Uniform Traffic Control Devices" (MUTCD) published by the U.S. Department of Transportation and the Modifications to the MUTCD for Streets and Highways for the State of Washington. Copies of the MUTCD may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Modifications to the MUTCD for Streets and Highways for the State of Washington may be obtained from the Washington State Department of Transportation (WSDOT), Olympia, Washington 98504.



## PART 3 - EXECUTION

### 3.01 GENERAL

- A. Protective and directional devices shall be provided by the CONTRACTOR as required. The devices and their placement shall conform to the requirements of the MUTCD.
- B. If the CONTRACTOR fails to furnish and maintain appropriate protective and directional devices, the OWNER may suspend the work until appropriate devices are installed.
- C. Off-hours, when no work is being performed, CONTRACTOR shall maintain traffic control at any open work, cover or protect so as to allow use during off-hours.
- D. CONTRACTOR shall be required to maintain through traffic on all public rights-of-way. One (1) flagger will be required at each end of the work area when two-lane traffic cannot be maintained, unless otherwise approved by the OWNER.
- E. During construction, the CONTRACTOR shall determine if any protective and directional devices are required in addition to those in place and shall immediately notify the OWNER. The CONTRACTOR shall immediately make any changes approved or directed by OWNER, but shall not place or remove devices without approval from the OWNER.
- F. All existing traffic control devices along the construction Right-of-way affected by construction shall be included in the traffic plan if affected by construction.

### 3.02 MAINTENANCE

- A. The CONTRACTOR shall maintain all construction traffic devices in proper position, clean, and legible at all times. Vegetative growth or other materials shall be trimmed or removed to permit clear vision of the devices. Lights, beacons, and flashers shall be kept clean, visible and operable. The effectiveness of the installations shall be verified at frequent intervals, both in daylight and dark, by actual travel and inspection by the CONTRACTOR. Devices damaged or destroyed by any means shall be repaired, replaced, or restored by the CONTRACTOR.
- B. The CONTRACTOR shall have a person on the job during working hours, and on call at all other times, who will maintain all directional and warning devices in proper position and condition. The name and phone number for that person shall be on file with the OWNER and local law enforcement agencies.
- C. Temporary devices used under these provisions remain the property of the CONTRACTOR and shall be moved, removed, or made inoperative as occasion dictates during the life of the Contract. Inappropriate temporary or existing signs shall be covered or turned to preclude visibility to traffic. Flags shall be removed or rolled and completely covered with an opaque, black, non-reflective sheath.
- D. Upon completion of the work, the devices shall be removed from the project along with any evidence of their existence.

3.03 FLAGGERS, SIGNAL OPERATORS, AND PILOT CAR OPERATORS

- A. Flaggers, signal operators and pilot car operators shall have satisfactorily completed approved training courses and possess current certification(s) as required.

3.04 LANE CLOSURES

- A. The CONTRACTOR shall obtain the OWNER's approval of proposed methods and timing of lane closures.

3.05 TEMPORARY, DIRECT ACCESS ON ACCESS-CONTROLLED ROAD

- A. The CONTRACTOR shall not open or use any temporary direct access to a controlled-access road without written approval from the OWNER.

3.06 OBSTRUCTION OF TRAFFIC

- A. The CONTRACTOR shall conduct work to assure the least possible obstruction to traffic. Work that will restrict or interrupt traffic movement shall not be performed on opposite sides of the traveled way at the same time.

PART 4 - MEASUREMENT AND PAYMENT

- 4.01 All costs for supplying, installing and maintaining traffic control equipment such as signs, barriers, lights shall be incorporated into the appropriate Temporary Traffic Control lump sum bid item as found in the Bid Form.

- 4.02 All costs for providing traffic control flaggers and spotters shall be incorporated into the appropriate Flaggers and Spotters unit price bid item as found in the Bid Form.

-- END OF SECTION 01570 --

## **SECTION 01630 PRODUCTS AND SUBSTITUTIONS**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 DESCRIPTION OF REQUIREMENTS**

- A. Definitions: "Products" is defined to include purchased items for incorporation into the work, regardless of whether specifically purchased for project or taken from CONTRACTOR's stock of previously purchased products. "Materials" is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, installed or applied to form units of work. "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, etc.). Definitions in this paragraph are not intended to negate the meaning of other terms used in Contract Documents, including "specialties", "systems", "structure", "finishes", "accessories", "furnishings", "special construction", and similar terms, which are self-explanatory and have recognized meanings in the construction industry.
- B. Substitutions: The requirements for substitutions do not apply to specified CONTRACTOR options on products and construction methods. Revisions to Contract Documents, where requested by OWNER or ENGINEER, are "changes" not "substitutions". Requested substitutions during bidding period, which have been accepted prior to Contract Date, are included in Contract Documents and are not subject to requirements for substitutions as specified herein. CONTRACTOR's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute "substitutions"; and do not constitute a basis for change orders, except as provided for in Contract Documents. Otherwise, CONTRACTOR's requests for changes in products, materials and methods of construction required by Contract Documents are considered requests for "substitutions", and are subject to requirements hereof.
- C. Standards: Refer to specification Section 01070 - DEFINITIONS AND ABBREVIATIONS for applicability of industry standards to products of project, and for acronyms used in text of specification sections.

#### **1.03 QUALITY ASSURANCE**

- A. Source Limitations: To the greatest extent possible for each unit of work, provide products, materials or equipment of a singular generic kind from a single source.
- B. Compatibility of Options: Where more than one choice is available as options for CONTRACTOR's selection of a product or material, select an option which is compatible with other products and materials already selected (which may have been from among

options for those other products and materials). Total compatibility among options is not assured by limitations within Contract Documents, but must be provided by CONTRACTOR. Compatibility is a basic general requirement of product/material selections.

#### 1.04 SUBMITTALS

- A. Requests for Substitutions: Submit a PDF in accordance with Section 01300 – SUBMITTALS, fully identified for product or method being replaced by substitution, including related Specification section or Drawing number(s), and fully documented to show compliance with requirements for substitutions. Include product data/drawings, description of methods, samples where applicable, CONTRACTOR's detailed comparison of significant qualities between specified item and proposed substitution, statement of effect on construction time and coordination with other affected work, cost information or proposal, and CONTRACTOR's statement to the effect that proposed substitution will result in overall work equal-to-or-better-than work originally indicated.

#### 1.05 PRODUCT DELIVERY-STORAGE-HANDLING

- A. General: Deliver, handle and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Control delivery schedules to minimize long-term storage of products at site. In particular, provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other sources of loss.

#### 1.06 WARRANTIES (GUARANTEES)

- A. Categories of Specific Warranties: Warranties on the work are in several categories, including those of General Conditions, and including (but not necessarily limited to) the following specific categories related to individual units of work specified in sections of technical specifications, Divisions 2 through 15 of these specifications.
1. Special Project Warranty (Guarantee): A warranty specifically written and signed by CONTRACTOR for a defined portion of the work; where required, countersigned by subcontractor, installer, manufacturer of other entity engaged by CONTRACTOR.
  2. Specified Product Warranty: A warranty which is required by Contract Documents, to be provided for a manufactured product incorporated into the work; regardless of whether manufacturer has published a similar warranty without regard for specific incorporation of product into the work, or has written and executed a special project warranty as a direct result of Contract Document requirements.
  3. Coincidental Product Warranty: A warranty which is not specifically required by the Contract Documents (other than as specified in this Section); but which is available on a product incorporated into the work, by virtue of the fact that manufacturer of product has published warranty in connection with purchase and uses of product without regard or specific applications except as otherwise limited by terms of warranty.

- B. Refer to individual sections of technical specifications, Divisions 2 through 16, for the determination of units of work which are required to be specifically or individually warranted, and for the specific requirements and terms of those warranties (or guarantees).
- C. General Limitations: It is recognized that specific warranties are intended primarily to protect OWNER against failure of the work to perform as required, and against deficient, defective and faulty materials and workmanship, regardless of sources. Except as otherwise indicated, specific warranties do not cover failures in the work which result from: 1) Unusual and abnormal phenomena of the elements, 2) The OWNER's misuse, maltreatment or improper maintenance of the work, 3) Vandalism after time of substantial completion, or 4) Insurrection or acts of aggression including war.
- D. Related Damages and Losses: In connection with CONTRACTOR's correction of warranted work which has failed, remove and replace other work of project which has been damaged as a result of such failure, or must be removed and replaced to provide access for correction of warranted work.
- E. Reinstatement of Warranty Period: Except as otherwise indicated, when work covered by a special project warranty or product warranty has failed and has been corrected by replacement or restoration, reinstate warranty by written endorsement for the following time period, starting on date of acceptance of replaced or restored work.
  - 1. A period of time equal to original warranty period of time.
- F. Replacement Cost, Obligations: Except as otherwise indicated, costs of replacing or restoring failing warranted units or products is CONTRACTOR's obligation, without regard for whether OWNER has already benefited from use through a portion of anticipated useful service lives.
- G. Rejection of Warranties: OWNER reserves the right, at time of substantial completion or thereafter, to reject coincidental product warranties submitted by CONTRACTOR, which in opinion of OWNER tend to detract from or confuse interpretation of requirements of Contract Documents.
- H. CONTRACTOR's Procurement Obligations: Do not purchase, subcontract for, or allow others to purchase or subcontract for materials or units of work for project where a special project warranty, specified product warranty, certification or similar commitment is required, until it has been determined that entities required to countersign such commitments are willing to do so.
- I. Specific Warranty Forms: Where a special project warranty (guarantee) or specified product warranty is required, prepare a written document to contain terms and appropriate identification, ready for execution by required parties. Submit draft to OWNER (through ENGINEER) for approval prior to final execution.

## PART 2 - PRODUCTS

### 2.01 GENERAL PRODUCT COMPLIANCES

- A. General: The compliance requirements, for individual products as indicated in Contract Documents, are multiple in nature and may include generic, descriptive, proprietary, performance, prescriptive, compliance with standards, compliance with codes, conformance with graphic details and other similar forms and methods of indicating requirements, all of which must be complied with.
- B. Procedures for Selecting Products: CONTRACTOR's options for selecting products are limited by Contract Document requirements, and governing regulations, and are not controlled by industry traditions or procedures experienced by CONTRACTOR on previous construction projects. Required procedures includes, but are not necessarily limited to, the following for various indicated methods of specifying:
1. Two or More Product/Manufacturer Names: Provide one of the named products, at CONTRACTOR's option; but excluding products which do not comply with requirements. Do not provide or offer to provide an unnamed product, except where none of named products comply with requirements or are a feasible selection; advise ENGINEER before proceeding.
  2. "Or Equal": Where named products in specifications text are accompanied by the term "or equal," or other language of similar effect, comply with those Contract Document provisions concerning "substitutions" for obtaining ENGINEER's approval (by change order) to provide an unnamed product.
  3. Standards, Codes and Regulations: Where only compliance with an imposed standard, code or regulation is required, selection from among products which comply with requirements including those standards, codes and regulations, is CONTRACTOR's option.
  4. Performance Requirements: Provide products which comply with specific performances indicated, and which are recommended by manufacturer (in published product literature or by individual certification) for application indicated. Overall performance of a product is implied where product is specified with only certain specific performance requirements.

### 2.02 SUBSTITUTIONS

- A. Conditions: CONTRACTOR's request for substitution will be received and considered when extensive revisions to Contract Documents are not required and changes are in keeping with general intent of Contract Documents; when timely, fully documented and properly submitted; and when one or more of the following conditions is satisfied, all as judged by ENGINEER. Otherwise, requests will be returned without action except to record non-compliance with these requirements.
1. Where request is directly related to an "or equal" clause or other language of same effect in Contract Documents.
  2. Where required product, material or method cannot be provided by Contract Time, but not as a result of CONTRACTOR's failure to pursue the work promptly or to coordinate various activities properly.

3. Where required product, material or method cannot be provided in a manner which is compatible with other materials of the work, or cannot be properly coordinated therewith, or cannot be warranted as required, or cannot be used without adversely affecting OWNER's insurance coverage on completed work, or will encounter other substantial non-compliances which are not possible to otherwise overcome except by making requested substitution, which CONTRACTOR thereby certifies to overcome such non-compatibility, non-coordination, non-warranty, non-insurability or other non-compliance as claimed.
4. Where required product, material or method cannot receive required approval by a governing authority, and requested substitution can be so approved.
5. Where substantial advantage is offered OWNER, in terms of cost, time, energy conservation or other valuable considerations, after deducting offsetting responsibilities OWNER may be required to bear, including additional compensation to ENGINEER for redesign and evaluation services, increased cost of other work by OWNER or separate CONTRACTORS, and similar considerations.

B. Work-Related Submittals: CONTRACTOR's submittal of (and ENGINEER's acceptance of) Shop Drawings, product data or samples which relate to work not complying with requirements of Contract Documents, does not constitute an acceptable or valid request for a substitution, nor approval thereof.

## 2.03 GENERAL PRODUCT REQUIREMENTS

A. General: Provide products which comply with requirements, and which are undamaged and unused at time of installation, and which are complete with accessories, trim, finish, safety guards and other devices and details needed for complete installation and for intended use and effect.

1. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.

B. Nameplates: Except as otherwise indicated for required approval labels, and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on exterior of the work.

1. Labels: Locate required labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
2. Equipment Nameplates: Provide permanent nameplate on each item of service-connected or power operated equipment. Indicate manufacturer, product name, model number, serial number, capacity, speed, ratings and similar essential operating data. Locate nameplates on an easily accessed surface.

## PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END SECTION 01630 --



# SECTION 01700 PROJECT CLOSEOUT

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - specification sections, apply to work of this section.

### 1.02 DESCRIPTION OF REQUIREMENTS

- A. Definitions: Closeout is hereby defined to include general requirements near the end of the Contract Time, in preparation for final acceptance, final payment, normal termination of Contract, occupancy by OWNER and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in various technical specification sections (Divisions 2 through 15). Time of closeout is directly related to "Substantial Completion", and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

### 1.03 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. General: Prior to requesting ENGINEER's inspection for certification of substantial completion (for either entire work or portions thereof), complete the following and list known exceptions in request:

1. In progress payment request, coincide with or first following 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.

Include supporting documentation for completion as indicated in these Contract Documents.

2. Submit statement showing accounting of changes to Contract Price.
3. Advise OWNER of pending insurance change-over requirements.
4. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.
5. Obtain and submit releases enabling OWNER's full and unrestricted use of the work and access to services and utilities.
6. Submit record drawings, maintenance manuals, and similar final record information.
7. Deliver tools, spare parts, extra stocks of materials, and similar physical items to OWNER.
8. Where applicable make final change-over of locks and transmit keys to OWNER, and advise OWNER's personnel of change-over in security provisions.
9. Complete start-up testing of systems, and instructions of OWNER's operating/maintenance personnel. Discontinue (or change-over) and remove

- from project site temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.
10. Complete final cleaning up requirements, including touch-up painting of marred surfaces.
  11. Touch-up and otherwise repair and restore marred exposed finishes.
- B. Inspection Procedures: Upon receipt of CONTRACTOR's request, ENGINEER will either proceed with inspection or advise CONTRACTOR of prerequisites not fulfilled. Following initial inspection, ENGINEER will either prepare certificate of substantial completion, or advise CONTRACTOR of work which must be performed prior to issuance of certificate; and repeat inspection when requested and assured that work has been substantially completed. Results of completed inspection will form initial "punch-list" for final acceptance. CONTRACTOR shall pay OWNER for ENGINEER's inspection time, including time to prepare inspection reports, travel, etc., if more than two visits are required to complete the final inspection for substantial completion.

#### 1.04 PREREQUISITES TO FINAL ACCEPTANCE

- A. General: Prior to requesting ENGINEER's final inspection for certification of final acceptance and final payment, as required by General Conditions, complete the following and list known exceptions (if any) in request:
1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
  2. Submit updated final statement, accounting for additional (final) changes to Contract Price.
  3. Submit certified copy of ENGINEER's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, endorsed and dated by ENGINEER.
  4. Submit final meter readings for utilities, measured record of stored fuel, and similar data as of time of substantial completion or when OWNER took possession of and responsibility for corresponding elements of the work.
  5. Submit consent of surety.
  6. Submit final liquidated damages settlement statement, acceptable to OWNER.
  7. Revise and submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Re-inspection Procedure: Upon receipt of CONTRACTOR's notice that the work has been completed, including punch-list items resulting from earlier inspections, and accepting incomplete items delayed because of acceptable circumstances, ENGINEER will re-inspect the work. Upon completion of re-inspection, ENGINEER will either prepare certificate of final acceptance or advise CONTRACTOR of work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated. CONTRACTOR shall pay the OWNER for ENGINEER's inspection time, including time to prepare inspection reports, travel, etc., if more than two site visits are required to complete the final inspection for final acceptance.

## 1.05 RECORD DOCUMENT SUBMITTALS

- A. General: Specific requirements for record documents are indicated in individual sections of these specifications. Other requirements are indicated in General Conditions. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; maintain at project site, available to OWNER and ENGINEER, one copy of the Contract Documents, Shop Drawings and other submittals, in good order.
- B. Record Drawings: Maintain a set of Drawings and Shop Drawings in clean, undamaged condition, with mark-up of actual installations which vary substantially from the work as originally shown. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where Shop Drawings are used for mark-up, record a cross-reference at corresponding location on working Drawings. Mark with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work. Mark-up new information which is recognized to be of importance to OWNER, but was for some reason not shown on either Contract Drawings or Shop Drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date. Note related change order numbers where applicable. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set.
1. Mark and record field changes and detailed information contained in submittals and change orders.
  2. Record actual depths, horizontal and vertical location of underground pipes, duct banks and other buried utilities. Reference dimensions to permanent surface features.
  3. Identify specific details of pipe connections, location of existing buried features located during excavation, and the final locations of piping, equipment, electrical conduits, manholes, and pull boxes.
  4. Identify location of spare conduits including beginning, ending and routing through pull boxes and manholes. Record spare conductors, including number and size, within spare conduits, and filled conduits.
  5. Provide schedules, lists, layout drawings and wiring diagrams.
  6. Make annotations with erasable colored pencil conforming to the following color code:

Additions	Red
Deletions	Green
Comments	Blue
Dimensions	Graphite

7. Maintain documents separate from those used for construction.
  - a. Label documents "RECORD DOCUMENTS."
8. Keep documents current.
  - a. Record required information at the time the material and equipment is installed and before permanently concealing.
9. Deliver record documents with transmittal letter containing date, Project title, CONTRACTOR's name and address, list of documents, and signature of CONTRACTOR.

10. During progress meetings, record documents will be reviewed to ascertain that changes have been recorded.
- C. Record Specifications: Maintain one copy of specifications, including addenda, change orders and similar modifications issued in printed form during construction, and mark-up variations (of substance) in actual work in comparison with text of specifications and modifications as issued. Give particular attention to substitutions, selection of options, and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data, where applicable. Upon completion of mark-up, submit to ENGINEER for OWNER's records.
  - D. Maintenance Manuals: Organize maintenance-and-operating manual information into suitable sets of manageable size, and bind into individual binders properly identified and indexed (thumb tabbed). Include emergency instructions, spare parts listing, copies of warranties, wiring diagrams, recommended "turn-around" cycles, inspection procedures, Shop Drawings, product data, and similar applicable information. Bind each manual of each set in a heavy-duty 2-inch, 3-ring, vinyl-covered binder, and include pocket folders for folded sheet information. Mark identification on both front and spine of each binder.

#### 1.06 CLOSEOUT DOCUMENTS

- A. Submit following Closeout Submittals after receipt of Certificate of Substantial Completion and at least 7 days prior to Application for Final Payment:
  1. Evidence of Compliance with Requirements of Governing Authorities.
  2. Project Record Documents.
  3. Operation and Maintenance Manuals.
  4. Warranties and Bonds.
  5. Keys and Keying Schedule.
  6. Evidence of Payment and Release of Liens as outlined in Conditions of the Contract.
  7. Release of claims as outlined in Conditions of the Contract.
  8. Certification of Final Completion.

#### 1.07 WARRANTIES AND BONDS

- A. Provide executed Warranty Form as outlined in the General Conditions.
- B. Provide specified additional warranties and bonds from manufacturers and suppliers.

#### 1.08 CERTIFICATE OF FINAL COMPLETION

- A. When 7 day operational test has been successfully completed, ENGINEER will certify new facilities are operationally complete. ENGINEER will submit a list of known items (punchlist) still to be completed or corrected prior to Contract completion.
- B. List of items to be completed or corrected will be amended as items are resolved by CONTRACTOR.

- C. When all items have been completed or corrected, submit written certification that the entire work is complete in accordance with the Contract Documents and request final inspection.
- D. Upon completion of final inspection, ENGINEER will either prepare a written acceptance of the entire work or advise CONTRACTOR of work not complete. If necessary, inspection procedures will be repeated.

## PART 2 - PRODUCTS (NOT APPLICABLE)

## PART 3 - EXECUTION

### 3.01 CLOSEOUT PROCEDURES

- A. General Operating/Maintenance Instructions: Arrange for each installer of work requiring continuing maintenance or operation, to meet with OWNER's personnel, at project site, to provide basic instructions needed for proper operation and maintenance of entire work. Include instructions by manufacturer's representatives where installers are not expert in the required procedures. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, cleaning and similar procedures and facilities. For operational equipment, demonstrate start-up, shut-down, emergency operations, noise and vibration adjustments, safety, and similar operations. Review maintenance and operations in relation with applicable warranties, bonds, and similar continuing commitments.

### 3.02 FINAL CLEANING

- A. General: Provide final cleaning of the work, at time indicated, consisting of cleaning each surface or unit of work to normal "clean" condition expected for a first-class cleaning and maintenance program. Comply with manufacturer's instructions for cleaning operations. The following are examples, but not by way of limitation, of cleaning levels required:
  - 1. Remove labels which are not required as permanent labels.
  - 2. Clean transparent materials, including mirrors and windows/door glass, to a polished condition, removing substances which are noticeable as vision-obscuring materials. Replace broken glass and damaged transparent materials.
  - 3. Clean exposed exterior and interior hard-surfaced finishes, to a dirt-free condition, free of dust, stains, films and similar noticeable distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces. Restore reflective surfaces to original reflective condition.
  - 4. Wipe surfaces of mechanical and electrical equipment clean. Remove excess lubrication and other substances.
  - 5. Remove debris and surface dust from limited-access spaces including roofs, trenches, equipment vaults, manholes, and similar spaces.
  - 6. Clean concrete floors, in non-occupied spaces broom clean.
  - 7. Clean plumbing fixtures to a sanitary condition, free of stains including those resulting from water exposure.

8. Clean light fixtures and lamps so as to function with full efficiency.
  9. Clean project site (yard and grounds), including landscape development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petro-chemical spills and other foreign deposits. Rake grounds, which are neither planted nor paved, to a smooth, even-textured surface.
- B. Perform final cleaning prior to inspections for Substantial Completion.
  - C. Employ skilled workers who are experienced in cleaning operations.
  - D. Use cleaning materials which are recommended by manufacturers of surfaces to be cleaned.
  - E. Prevent scratching, discoloring, and otherwise damaging surfaces being cleaned.
  - F. Broom clean exterior paved surfaces and rake clean other surfaces of sitework.
    1. Police yards and grounds to keep clean.
  - G. Remove dust, cobwebs and traces of insects and dirt.
  - H. Clean grease, mastic, adhesives, dust, dirt, stains, fingerprints, paint, blemishes, sealants, plaster, concrete, and other foreign materials from sight-exposed surfaces, and fixtures and equipment.
  - I. Remove non-permanent protection and labels.
  - J. Polish glossy surfaces to clear shine.
  - K. Removal of Protection: Except as otherwise indicated or requested by ENGINEER, remove temporary protection devices and facilities which were installed during course of the work to protect previously completed work during remainder of construction period.
  - L. Compliance: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at site, or bury debris or excess materials on OWNER's property or discharge volatile or other harmful or dangerous materials into drainage systems; remove waste materials from site and dispose of in a lawful manner.
    1. Where extra materials of value remaining after completion of associated work have become OWNER's property, dispose of these to OWNER's best advantage as directed.
  - M. Final Site Cleanup: The CONTRACTOR shall perform final cleanup as provided in this section to the ENGINEER's satisfaction. The ENGINEER will not establish the final completion date until that is done. All street right-of-ways, material sites, and all ground the CONTRACTOR occupied to do the work shall be left neat and presentable. The CONTRACTOR shall:
    1. Remove all rubbish, surplus materials, discarded materials, falsework, temporary buildings and structures, equipment and debris from project site.

2. Deposit in embankments, or remove from the project site(s), all unneeded, oversized rock left from grading, surfacing, or paving.

The CONTRACTOR shall not remove warning, regulatory, or guide signs unless the ENGINEER approves.

### 3.03 WASTE DISPOSAL

- A. Arrange for and dispose of surplus materials, waste products, and debris off-site.
- B. Do not fill ditches, washes or drainage-ways which may create drainage problems.
- C. Do not create unsightly or unsanitary nuisances during disposal operations.
- D. Maintain disposal site in safe condition and good appearance.
- E. Complete leveling and cleanup prior to final acceptance of the Work.

### 3.04 TOUCH-UP AND REPAIR

- A. Touch-up or repair finished surfaces on structures, equipment, fixtures, and installations that have been damaged prior to inspection for final acceptance.
- B. Refinish or replace entire surfaces which cannot be touched-up or repaired satisfactorily.

## PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01700 --

# **SECTION 01730 OPERATING AND MAINTENANCE DATA**

## **PART 1 - GENERAL**

### **1.01 RELATED DOCUMENTS**

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 – General Requirements, apply to work of this section.

### **1.02 SUMMARY**

- A. Section Includes: Preparation and submittal of Operating Maintenance Manuals.
- B. Equipment requiring O&M Manuals include:  
Air/Vacuum Release Assemblies

### **1.03 SUBMITTALS**

- A. Submit Operating and Maintenance Manuals before field quality control testing and before training on equipment.
- B. Submit four (4) manuals for each piece of equipment.
- C. Make manuals available at project site for use by construction personnel, ENGINEER, and OWNER's staff.
- D. Make additions and revisions to the Manuals in accordance with ENGINEER's review comments.

### **1.04 PREPARATION**

- A. Provide Operations and Maintenance Manuals in 3-ring binders with rigid covers. Utilize tab sheets to organize information.
- B. Manual Contents:
  - 1. Cover Page: Equipment name, equipment tag number, project name, OWNER's name, and appropriate date.
  - 2. Table of Contents: General description of information provided within each tab section.
  - 3. Control Diagrams: Internal and connection wiring, including logic diagrams, wiring diagrams for control panels, ladder logic for computer based systems, connections between existing systems and new additions, adjustments such as calibrations and set points for relays and control or alarm contact settings.
  - 4. Start-up Procedures: Recommendations for installation, adjustment, calibration and troubleshooting.



5. Operating Procedures: Step-by-step procedures for starting, operating and stopping equipment under specified modes of operation. Include safety precautions and emergency shutdown instructions.
6. Preventative Maintenance Procedures: Recommended steps and schedules for maintaining equipment.
7. Overhaul Instructions: Directions for disassembly, inspection, repair and re-assembly of the equipment; safety precautions; and recommended tolerances, critical bolt torques and special tools that are required.
8. Parts List: Generic title and identification number of each component part of equipment; include bearing manufacturer, model and ball or roller pass frequencies for every bearing.
9. Spare Parts List: Recommended number of parts to be stored at the site and special storage precautions.
10. Drawings: Exploded view or plan and section views with detailed callouts.
11. Provide electrical and instrumentation schematic record drawings.
12. Source (Factory) Quality Control Test Results: Provide copies of factory test reports as specified in the appropriate equipment section.
13. Field Quality Control Test Results: After field testing is completed, insert field test reports as specified in the appropriate equipment section.
14. Equipment Summary Form: Complete form in the format attached at the end of this Section. Insert Equipment Summary Form after the tab sheet of each equipment section. The manufacturer's standard form will not be acceptable.

#### PART 2 – PRODUCTS (NOT APPLICABLE)

#### PART 3 – EXECUTION (NOT APPLICABLE)

#### PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 01730 --

## Division 2 Sitework

- Section 02071 – Removal & Replacement of Structures & Obstructions
- Section 02110 – Clearing and Grubbing
- Section 02140 – Waste Disposal Site
- Section 02151 – Shoring
- Section 02201 – Watering
- Section 02202 – Import Aggregates
- Section 02221 – Trench Excavation, Bedding and Backfill
- Section 02322 – Tunneling & Steel Casing
- Section 02485 – Hydroseeding
- Section 02513 – Asphalt Concrete Pavement
- Section 02990 – Clean-Up

# **SECTION 02071**

## **REMOVAL AND REPLACEMENT OF STRUCTURES AND OBSTRUCTIONS**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 DESCRIPTION OF WORK**

- A. Removing and disposing of paved areas required to install the pipelines that are part of this project. See Section 02513 – ASPHALT CONCRETE PAVEMENT for replacement of pavement.
- B. Removing the existing DIP bridge pipe and hanger assembly once the new pipe has been installed and tested.
- C. Removing and replacing street signs, mailboxes and other signs.

### **PART 2 - PRODUCTS**

#### **2.01 MATERIALS**

- A. The CONTRACTOR shall provide all labor, equipment, and materials required to accomplish the necessary removal and replacement/disposal work as specified.
- B. DIP for bridge crossing shall be replaced per the Drawings.
- C. Air release valve assemblies shall be replaced per the Drawings.

## PART 3 - EXECUTION

### 3.01 REMOVAL AND DISPOSAL OF PAVED AREAS

A. In removing paved areas the CONTRACTOR shall:

1. Haul broken-up pieces to a permitted off-project site.
2. Make a full-depth vertical sawcut between any existing pavement that is to remain and the portion to be removed. Any edges damaged during construction shall be re-sawed by the CONTRACTOR prior to placing the new surfacing at no additional cost to the OWNER.
3. Replace at no expense to the OWNER any existing pavement designated to remain that is damaged during the removal of designated pavement.

### 3.02 REMOVAL AND REPLACEMENT OF SIGNS AND MAILBOXES

A. Street signs, mailboxes and other signs obstructing the trench path shall be removed and protected from damage. Any damaged signs or mailboxes will be replaced at the CONTRACTOR's expense. Care shall be taken to reinstall signs and mailboxes level and plumb.

### 3.03 REMOVAL AND REPLACEMENT OF AIR RELEASE ASSEMBLIES

A. In removing existing air release assemblies the CONTRACTOR shall:

1. Remove and dispose of existing air valve and components including piping, fittings, valves and saddle.
2. Remove existing air valve vault without damaging existing 10-inch forcemain.
3. Haul broken-up pieces of vault to a permitted off-project site.
4. Place new vault and air valve per the Drawings.

## PART 4 – MEASUREMENT & PAYMENT

4.01 All costs to remove, sawcut, and dispose of existing asphalt pavement associated with performing work specified in this section shall be considered incidental to the A.C. Pavement bid items as found in the Bid Form and no direct payment will be made to the CONTRACTOR for this item.

4.02 All costs to remove, dispose and replace existing culvert piping end sections scheduled for removal and replacement will be at the unit price stated for the 12" DIP for Bridge Crossing bid item found on the Bid Form.

4.03 The cost to remove and replace existing signs and mail boxes shall be considered incidental to the per linear foot of the appropriate 14-inch HDPE SDR 11 Pipe and Fittings bid item.

4.04 Payment to remove existing air release valve assemblies shall be included in the Air/Vacuum Valve Assembly including Demo unit price bid item as found in the Bid Form.

-- END OF SECTION 02071 --

# **SECTION 02110 CLEARING AND GRUBBING**

## **PART 1 - GENERAL**

### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - specification sections, apply to work of this section.

### **1.02 DESCRIPTION OF WORK**

- A. Extent of clearing and grubbing required consists of clearing, removal and disposal of all debris and vegetation such as roots, shrubs, vines, grass and weeds as necessary to construct trenches and excavations in order to install the pipelines and appurtenances shown on the Drawings.

### **1.03 DEFINITIONS**

- A. Clearing is defined as cutting and removal of bushes, vines and other vegetative growth at or above the surface of the ground. Clearing shall be limited to City owned property, public right-of-ways or secured easements.
- B. Grubbing is defined as the removal of vegetative growth and wood items remaining at or below the ground surface. Grubbing shall include stripping the top 12-inches (on average) of the topsoil. Greater depths may be necessary to remove localized zones of organic material. The primary root systems of any brush or trees shall be removed and disposed offsite at a site supplied by the CONTRACTOR.

## **PART 2 - PRODUCTS (NOT APPLICABLE)**

## **PART 3 - EXECUTION**

### **3.01 CLEARING**

- A. Trees and brush shall be cut such that no stump extends above the ground surface more than six inches.

### **3.02 GRUBBING**

- A. Excavation Areas: All roots and embedded wood shall be removed to a depth of not less than six inches below the subgrade or slope surface to which the excavation is constructed. All stumps shall be completely removed.

- B. Removal of Protection: All stumps, roots, and embedded wood shall be removed to a depth not less than 12-inches below the subgrade or slope surface on which the embankment is to be constructed.
- C. Disposal: Cleaning and grubbing vegetation and unacceptable topsoil material shall be disposed of by the CONTRACTOR in a manner satisfactory to the ENGINEER and OWNER and in compliance with federal, state and local laws and ordinances.

#### PART 4 - MEASUREMENT AND PAYMENT

- 4.01 The cost for all work necessary to clear and grub the construction area within designated limits for the project including offsite disposal shall be incorporated with the Trench Excavation item as found in the Bid Form.

-- END OF SECTION 02110 --

## **SECTION 02140 WASTE DISPOSAL SITE**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 DESCRIPTION OF WORK**

- A. Waste sites shall be provided by the CONTRACTOR and shall be operated in accordance with all federal, state, and local codes, permits and ordinances. Waste disposal sites shall be outside of shorelines jurisdiction. Sites, operations, or results of such operations, which create a definite nuisance problem, or which result in damage to public or private properties will not be permitted.
- B. The CONTRACTOR shall submit to the ENGINEER at the pre-construction conference a list of disposal sites the CONTRACTOR proposes to use during the course of construction. The list shall identify, in addition to each location, the estimated quantities and type of material to be disposed of at each site. Should additional or alternate sites become necessary during the life of the Contract, the locations and preceding information for each site shall be submitted to the ENGINEER for approval, prior to their use.
- C. Disposal sites and their operations shall, at all times, be subject to the ENGINEER's approval. No disposal site shall be utilized by the CONTRACTOR until the proper permits and/or property owner agreements have been obtained by the CONTRACTOR and copies submitted to the ENGINEER. Sites utilized by the CONTRACTOR without the proper permits, property owner agreement, and approval of the ENGINEER will be considered unauthorized.
- D. Upon completion of the work and before final acceptance and payment, the CONTRACTOR shall clean up all properties and sites on which the CONTRACTOR has operated. The CONTRACTOR shall perform all operations necessary to put the sites in a neat, clean and orderly condition.
- E. Final cleanup shall be in accordance with the requirements specified in the permits, property agreements and other Contract Documents. Upon completion of grading operations at any site for which a written agreement between the CONTRACTOR and property owner is required, the CONTRACTOR shall obtain and furnish the ENGINEER a release from all damages, duly executed by the property owner, stating that the restoration of the property has been satisfactorily completed. Retainage withheld from the CONTRACTOR's payments will not be released until all such property owner releases have been furnished to the ENGINEER. Should the release be, in the opinion of the OWNER, arbitrarily withheld, then the OWNER may, in its sole discretion, accept that portion of the work involved and cause final payment to be made.

### **PART 2 - PRODUCTS (NOT APPLICABLE).**

PART 3 - EXECUTION (NOT APPLICABLE).

PART 4 – MEASUREMENT & PAYMENT

4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 02140 --



# SECTION 02151 SHORING

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### 1.02 DESCRIPTION OF WORK

- A. This section covers requirements for design, construction, maintenance, and removal of temporary shoring systems. The work includes, but is not limited to structural support of excavations, trenches, and embankments greater than 4-feet in depth necessary for protection of personnel and existing or recently constructed facilities and utilities.
- B. Temporary shoring is required at the following locations:
  - 1. Where shown on the Drawings or required for construction of the Work.
  - 2. Where required by the Washington Administrative Code, Chapter 296-155, Part N (WISHA).
  - 3. At any other location where personnel are at risk during excavation or trenching in connection with any construction work such as trenches, excavations, and other work below ground level.
- C. Shoring shall be planned in accordance with these Specifications, applicable codes and good construction practice.
- D. All shoring shall be designed and constructed to withstand all soil and hydrostatic loading that might occur during various stages of construction and for any surcharge loading caused by equipment loads and loads from material or soil stockpiles. The Contractor shall be responsible for determination of proper load distributions caused by such activities and shall assure that those conditions are not exceeded in the field during construction.

### 1.03 DEFINITIONS

- A. Existing Facility: A structure, utility, or constructed element that exists at the start of construction and is not shown on the contract drawings to be demolished. This definition also applies to recently constructed facilities or utilities that are constructed under this Contract.
- B. Engineered Temporary Shoring: Shoring that is designed by the Contractor. These structures shall be designed by a Structural Engineer registered in the State of Washington to meet, as a minimum, the requirements of this Specification and Contract Drawings.

#### 1.04 SUBMITTALS

- A. Design Submittals: The Contractor shall submit his plans for shoring and sloping to the Engineer for review at least three weeks prior to commencement of work. No excavation shall be started until the Engineer has reviewed the shoring system. The design submittals shall be in accordance with Section 01300 – SUBMITTALS and shall include the following items:
1. Design calculations shall be prepared by a Structural Engineer registered in the State of Washington and include design criteria, analysis assumptions, construction sequence requirements, and detailed design of each system, structural elements, and connections. Calculations shall be submitted in bound volumes that include the responsible Structural Engineer's signed seal on the title page.
  2. Detailed excavation support drawings (working drawings), showing all pertinent dimensions, spacing, and relationships among the components of the trench support system, as well as construction sequence and scheduling.
  3. Detailed utility and structure support drawings where necessary.
- B. Shop Drawings: Submit the items listed below. These submittals must be reviewed, stamped and signed by the responsible Structural Engineer prior to submittal.
1. Shop fabrication details for all fabricated structural steel members and connections.
  2. Lagging details.
  3. Concrete reinforcing details.
- C. Monitoring Program: A proposed program shall be submitted for monitoring temporary shoring system movements. The elements in the project shall be as specified below, Paragraph 3.03 INSTRUMENTATION AND MONITORING. The submittal of the program shall include location of survey points, proposed frequency of measurements, and other pertinent information.
- D. Records of Monitoring Program: Records of the monitoring program shall be submitted as proposed in program submittal approved by Engineer.
- E. Method of drilling soldier piles, including method or technique for handling obstructions.
- F. The Engineer's review shall not be construed as a detailed analysis for adequacy of the support system, nor shall any provisions of the foregoing requirements be construed as relieving the Contractor of his overall responsibility and liability for the work.

#### 1.05 STANDARD SPECIFICATIONS, CODES AND ORDINANCES

- A. WSDOT-APWA: Standard Specifications for Road, Bridge, and Municipal Construction of the Washington State Department of Transportation and Washington State Chapter of American Public Works Association, 2004 edition. The Contractor shall comply with the 1-07.1 of the Standard Specifications. In addition, the following shall be added to Paragraph 2, which begins "The Contractor shall be responsible for the safety....."

If in the performance of this contract, the Contractor or any subcontractor excavates any trench to a depth in excess of four (4) feet, the Contractor shall provide adequate safety systems for the trench safety excavation that comply with the requirements of the Washington Industrial Safety and Health Act, RCW 49.17, and with regulations thereunder.

- B. WAC: Washington Administrative Code, Chapter 296-155, "Safety Standards for Construction Work."

#### 1.06 SAFETY

- A. The Contractor is solely responsible for protection of personnel and existing facilities and utilities and for ensuring compliance with all applicable laws and regulations.
- B. Responsible Competent Person: The Contractor shall have in the shoring work area during all phases of construction, a competent person capable of identifying hazards, anomalies, conditions that differ from the shoring design assumptions, and other factors that would indicate the possibility of hazardous or dangerous conditions in the work area. The responsible person shall have the authority to stop all work when such conditions are identified.
- C. All temporary construction and incidental items associated with shoring construction such as, but not limited to, lighting, barricades, fences, ladders, work platforms, ramps, and roadways shall conform to the applicable reference codes and regulations.

#### 1.07 QUALITY ASSURANCE

- A. The Contractor is solely responsible for quality assurance of temporary shoring. At a minimum, the Contractor shall continually verify that the shoring is planned, executed, and maintained in accordance with applicable codes and regulations and good construction practice.
- B. The Contractor shall institute, as a part of shoring construction, a quality assurance program at each shoring location. The program shall include, but not be limited to, systematic observation of suitability of shoring materials, installation, excavation, groundwater control, adjacent construction activities, and other factors.
- C. The responsible engineer for engineered temporary shoring shall verify at critical stages of shoring construction that the actual construction is in accordance with the Contractor prepared plans.
- D. Installation procedures for instrumentation shall be as recommended by the manufacturer.
- E. If the Contractor is unable to adequately dewater excavations for any reason, then the design of the shoring shall include the additional lateral force produced by the presence of water, water-saturated soils, and seepage, and shall prevent flow or other destabilization of water saturated soils.

## 1.08 EXISTING CONDITIONS

- A. Subsurface Investigation results are referenced in the Supplementary Conditions. Additional geotechnical information that may be desired by the Contractor shall be obtained by the Contractor at the Contractor's sole expense.
- B. The Contractor shall make its own interpretations, deductions and conclusions as to the nature of the materials to be excavated, the difficulties of making and maintaining the required excavations, and the difficulties of doing any other work affected by geotechnical conditions and therefore shall accept full responsibility.
- C. Reference drawings shall be used to determine extent, characteristics, and loading conditions of existing facilities for design of temporary shoring systems. The Contractor shall develop building weights, surcharges, design live loads and liquid loadings among others for use in temporary shoring design.
- D. The Contractor shall promptly, and before such conditions are disturbed, notify the Owner in writing of any subsurface or latent physical conditions at the site which differ materially from those indicated in the Contract and which could not reasonably have been anticipated by the Contractor. This notice shall be made within seven days of discovery of such condition. No claims of the Contractor under this clause will be allowed unless the Contractor has provided the required notice.

If the Engineer finds there are subsurface or latent physical conditions which differ materially from those indicated in the Contract and which could not reasonably have been anticipated by the Contractor and that such conditions caused an increase or decrease in the Contractor's cost of or time required for performance of work, a change order incorporating the necessary revisions shall be prepared in accordance with General Conditions Part 7 and submitted to the Owner for approval. If the Engineer finds there are no such subsurface or latent physical conditions, or if no decision has been made in writing within seven days of the written notice of conditions above (which 7th day shall be deemed the date on which the Engineer denied the claim), the Contractor must submit a claim documenting its costs in accordance with General Conditions Article 11 and/or Article 12 and in a manner and level of detail satisfactory to the Engineer and Owner. No claim by the Contractor for an equitable adjustment hereunder will be allowed if asserted after final payment under this Contract.

This subsection shall not be construed or interpreted to allow claims by the Contractor for physical conditions ordinarily to be encountered or generally recognized as inherent in the Work.

## 1.09 PROTECTION OF EXISTING FACILITIES

- A. Protect existing and new structures and active sewer, water, gas, electricity, and other utility services.

## 1.10 RESTORATION OF EXISTING FACILITIES

- A. Contractor shall restore all existing facilities damaged, destroyed, or altered by soil movements resulting from temporary shoring movements or nonperformance, at Contractor's own expense.
- B. Proposal shall be submitted by the Contractor to define the character and extent of the

Contractor's proposed restoration work when requested by the Engineer. Actual restoration work shall be as directed by the Engineer and may or may not include any or all of the Contractor's proposal.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. All materials for temporary shoring shall conform to the requirements of these Specifications and any specifications, notes, or requirements contained on the Contractor's submittals or Contractor-prepared designs for temporary shoring. Materials may be new or used, but they should be in good serviceable condition, free of defects and strength-reducing deficiencies.

## PART 3 - EXECUTION

### 3.01 PROTECTION OF EXISTING FACILITIES

- A. Temporary shoring is to be installed for excavation and embankments necessary for construction of proposed facilities. Care must be taken to minimize settlements and displacements of existing facilities by providing appropriate shoring systems and strict adherence to suitable construction practices for those Contractor's proposed shoring systems.
- B. Detrimental Movements or Settlements: Recording of settlements and movements shall be in strict accordance with the Monitoring Program. Work shall be stopped immediately and the causes of detrimental movements be ascertained if:
  - 1. Damage is noted on adjacent structures.
  - 2. Total settlements of an adjacent structure are noted to be 1/4-inch or larger.
  - 3. Total horizontal movements of an adjacent structure are noted to be 1/4-inch or larger.
  - 4. Soldier pile movements when adjacent to an existing structure are noted to be 1/2-inch or larger.
  - 5. Total ground settlements, when measured at settlement measurement points, are noted to be 1/2-inch or larger.
  - 6. There is a trend or a rate of change of any settlement or movement that indicate the maximum movements given above will be exceeded.
  - 7. Work is directed to stop by the ENGINEER due to other detrimental effects or factors.
- C. The causes of the detrimental movements or excessive settlements must be identified by the Contractor. Corrective measures must be proposed to and approved by the Engineer before further work.

### 3.02 BRACES, STRUTS, AND WALES

- A. Locate bracing to clear all permanent work. If necessary to move a brace, install new bracing prior to removal of original brace.
- B. Do not place bracing where it will be cast into or included in permanent concrete work, except as otherwise acceptable to the Engineer.
- C. Install internal bracing, if required, to prevent spreading or distortion to braced frames.
- D. All struts shall be preloaded to a compressive load based on shoring design. Fill all voids behind sheeting or lagging before applying preload.
- E. Maintain bracing until structural elements are re-braced by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.
- F. Wales shall be installed free of twists or deformations.
- G. Wales shall make full contact with each pile. Welded tight shims may be necessary for full bearing at each pile.

### 3.03 INSTRUMENTATION AND MONITORING

- A. Instrumentation, settlement monuments, survey points, and other items shall be installed as indicated in the Monitoring Program. As a minimum, 10 points will be provided by the Contractor with locations to be determined by the Engineer.
- B. Frequency of Measurements, Readings, or Monitoring:
  - 1. Measurements shall be taken at the following maximum intervals at a particular shoring work area. Measurements shall be by the Contractor and records made available to the Engineer.
    - a. Before Work Starts: At least one set of measurements.
    - b. During Shoring Construction and Associated Excavation: Measurements shall be taken daily.
    - c. During Facility Construction in a Shored Excavation: Measurements shall be taken on a weekly schedule.
    - d. During Backfill: Measurements shall be taken daily.
    - e. During Periods When Detrimental Movements or Settlements are Noted: Measurements shall be taken daily.

### 3.04 OBSTRUCTIONS

- A. Obstructions and other impediments to drilling and excavation should be considered a possibility within the Limits of Construction. If, during the course of work, obstructions are encountered, the Engineer should be immediately notified. Corrective measures must be proposed to and approved by the Engineer before further work.

### 3.05 REMOVAL OF SHORING

- A. Shoring may be removed only if public safety is maintained, completed work is protected, existing facilities are protected, and adequate steps are taken to prevent damage to facilities or personnel during removal. At a minimum, remove the upper portion of all shoring systems down at least 2-feet below finish grade, unless otherwise indicated. Voids created by removal of piles, sheeting, or lagging shall be filled with the backfill materials shown on the Drawings at or adjacent to the shoring area.
- B. Should the Engineer order that any shoring be left in place, the Contractor shall not remove the same but will receive payment for the materials left in place on a unit basis if such be in the Contract or at the market value thereof if there be no such unit price.

### PART 4 – MEASUREMENT & PAYMENT

- 4.01 All costs for designing, supplying, installing, maintaining, and removing shoring, mobile trench shields, overbreak, and other trench protection and safety measures for trenches in excess of 4-feet of depth shall be incorporated into the appropriate Trench Safety System lump sum bid item as found in the Bid Form.

-- END OF SECTION 02151 --

# SECTION 02201

## WATERING

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### 1.02 DESCRIPTION OF WORK

- A. This work consists of furnishing, hauling and applying water for the alleviation or prevention of dust nuisance. Excluded from this section is watering used in connection with Portland Cement Concrete construction and curing or for watering which is specified as incidental to work items in other sections of these Specifications.
- B. The CONTRACTOR shall not draw any water from the OWNER'S water system without first making arrangements with the OWNER as discussed in Section 01500 TEMPORARY FACILITIES AND CONTROLS.

### PART 2 - PRODUCTS

#### 2.01 WATER

- A. Water used in the work shall be free of silts and other matters deleterious to the quality of the material to which it is applied or with which it is mixed. The CONTRACTOR shall make arrangements for obtaining water and shall maintain an adequate supply of water at all times.

### PART 3 - EXECUTION

#### 3.01 APPLICATION OF WATER

- A. The CONTRACTOR shall water by means of tank trucks equipped with spray bars, by hose and nozzle, or by other approved means which insure uniform and controlled application. The use of splashboards will not be permitted.
- B. The CONTRACTOR shall perform watering at any hour of the day and on any day of the week necessary for proper performance or protection of the work and for alleviation of dust nuisance.

### PART 4 – MEASUREMENT & PAYMENT

- 4.01 All costs associated with this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 02201 --



## **SECTION 02202 IMPORT AGGREGATE MATERIAL**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 RELATED WORK SPECIFIED ELSEWHERE**

Refer to the following sections for work related to the work specified in this section.

Section 02221 - TRENCH EXCAVATION, BEDDING AND BACKFILL  
Section 02990 - CLEANUP

#### **1.03 DESCRIPTION OF WORK**

- A. This work consists of furnishing, placing, compacting and grading with aggregates and other import materials.
- B. Work covered by this section includes, but is not limited to the following:
1. Placing and compacting imported aggregate base and top course material for roadway and paved sections.
  2. Placing and compacting imported aggregate bedding material around piping and conduit.
  3. Placing and compacting imported aggregate backfill material in trenches and excavated areas.
  4. Placing CDF in areas called out in the Drawings or as directed by the Engineer.

#### **1.04 QUALITY ASSURANCE**

- A. Testing and Inspection Service: OWNER will provide all testing required for earthwork at no cost to CONTRACTOR.
- B. Upon initial operation procedures for excavation and backfill within existing right of way, CONTRACTOR will be required to establish a method of compaction which will meet the compaction requirements specified. Compaction testing will occur at least every 1,500 feet of trench within the right of way, and more frequently as determined to be necessary by the ENGINEER.

### **PART 2 - PRODUCTS**

- 2.01 GENERAL: Imported aggregates shall consist of gravel or crushed rock, including sand. Materials shall be free of peat, humus, muck, vegetative matter, organic matter or other material detrimental to construction and performance.

2.02 IMPORT AGGREGATE MATERIALS

A. Definitions and Gradations:

1. Imported Crushed Surfacing Top Course (C.S.T.C.) and Crushed Surfacing Base Course (C.S.B.C.) shall conform to the following requirements.

Sieve Size	Base Course	Top Course
	Percent Passing	
1 1/4" square	100	--
3/4" square	50-80	100
5/8" Square	30-50	55-75
1/4" square	3-18	8-24
U.S. No. 40	7.5 max	10.0 max
U.S. No. 200	5.0 max	5.0 max
% Fracture	75 min.	75 min.
Sand Equivalent	40 min	40 min

All percentages are by weight.

The fracture requirement shall be at least two fractured faces and will apply to material retained on each sieve size U.S. No. 10 and above if that sieve retains more than 5 percent of the total sample. The portion of crushed surfacing retained on a 1/4-inch square sieve shall not contain more than 0.15 percent wood waste.

2. Imported Pipe Bedding Material shall conform to the following requirements for rigid pipe and flexible pipe. The required depth of pipe bedding zone material is as shown on the Drawings.
  - a. Bedding Material for Rigid Pipe.

Bedding material for rigid pipe shall consist of crushed, processed, or naturally occurring granular material. It shall be essentially free from various types of wood waste or other extraneous or objectionable materials as determined by the ENGINEER. It shall have such characteristics of size and shape that it will compact readily and shall meet the following specifications for grading and quality:

Sieve Size	Percent Passing
1-inch square	100
1/4-inch square	25-80
U.S. No. 200	7 max.
Sand Equivalent	27 min.

All percentages are by weight.

b. Bedding Material for Flexible Pipe.

Bedding material for flexible pipe shall be a clean sand/gravel mixture free from organic matter and conforming to the following gradation:

Sieve Size	Percent Passing
¾-inch square	100
3/8-inch square	70-100
U.S. No. 4	55-100
U.S. No. 10	35-95
U.S. No. 20	20-80
U.S. No. 40	10-55
U.S. No. 100	0-10
U.S. No. 200	0-3

Minimum sand equivalent shall be 35. All percentages are by weight.

3. Imported Trench Backfill material shall conform with Standard Specification Section 9-03.10, Aggregate for Gravel Base, except that the Stabilometer "R" Value shall be 70 minimum.

Sieve Size	Percent Passing
2-inch square	75 - 100
U.S. No. 4	22 - 100
U.S. No 200	0 - 10
Dust Ratio	2/3 max
Sand Equivalent	30 min

All percentages are by weight.

4. Trench Stabilization Geogrid shall be Tensar Biaxial Geogrid BX100(SS-1) as supplied by Contech Construction Products, Inc. of Hillsboro, Oregon, (503) 648-4123 or equal.

5. Sieve analysis for acceptance of aggregate gradation shall be performed by procedures described in WSDOT Test Method 104 as follows:
  - a. Procedure A (full-washed testing) shall be the sole basis of acceptance for Portland cement concrete aggregate, aggregate for BST, and for aggregate for ACP that is being stockpiled for use on a future contract. All other aggregates may be accepted based on Procedure A or as provided below.
  - b. Procedure B (partial-washed testing, with correlation) may be used as the basis of acceptance for all aggregate other than those described in Item a above.
  - c. Procedure C (dry sieving with correlation) may be used for informational testing or acceptance testing for all aggregates except as restricted in Item a above. In case of disputed results obtained by Procedure C, Procedure A shall be the reference test method.

## 2.03 CDF

- A. CDF shall comply with Standard Specification Section 2-09.3(1)E.

## 2.04 ACCEPTANCE

- A. Aggregate Base will be sampled for acceptance at one of the following times as determined by the ENGINEER.
  1. In its final state on the roadbed or other subgrade or subbase after all processing and prior to the placement of subsequent surfacing materials;
  2. In the stockpile after all shaping work has been completed; or
  3. Immediately after crushing.
- B. All imported materials specified in this section are subject to the following requirements:
  1. All tests necessary for the CONTRACTOR to locate an acceptable source of imported material shall be made by the CONTRACTOR. Certification that the material conforms to the Specification requirements along with copies of the test results from a qualified commercial testing laboratory shall be submitted to the ENGINEER for approval at least five (5) days before the material is required for use. All material samples shall be furnished by the CONTRACTOR at the CONTRACTOR's sole expense. Samples shall be representative and be clearly marked to show the source of the material and the intended use on the project. Sampling of the material source shall be done by the CONTRACTOR in accordance with ASTM D75. Notify the ENGINEER at least 24 hours prior to sampling. The ENGINEER may, at the ENGINEER's option, observe the sampling procedures. Tentative acceptance of the material source shall be based on an inspection of the source by the ENGINEER and/or the certified test results submitted by the CONTRACTOR to the ENGINEER, at the ENGINEER's discretion. No imported materials shall be delivered to the site until the proposed source and materials tests have been tentatively accepted in writing by the ENGINEER. Final acceptance will be based on observations and/or tests made by the ENGINEER on samples of material taken from the completed and compacted course. The completed course is defined as a course or layer that is ready for the next layer or the next phase of construction.
  2. If tests conducted by the CONTRACTOR or the ENGINEER indicate that the material does not meet Specification requirements, material placement will be

terminated until corrective measures are taken. Material which does not conform to the Specification requirements and is placed in the work shall be removed and replaced at the CONTRACTOR's sole expense. Sampling and testing performed by the CONTRACTOR shall be done at the CONTRACTOR's sole expense.

### PART 3 - EXECUTION

#### 3.01 CONSTRUCTION REQUIREMENTS FOR IMPORT AGGREGATE MATERIALS

All imported materials shall be stockpiled carefully and used efficiently.

- A. Crushed Surfacing Top Course Construction Requirements shall comply with Section 4-04.3 of the Standard Specifications.
- B. Pipe Bedding Material Construction Requirements shall conform to Section 02221 - TRENCH EXCAVATION, BEDDING AND BACKFILL of these specifications.
- C. Trench Backfill Material Construction Requirements shall conform to Section 02221 - TRENCH EXCAVATION, BEDDING AND BACKFILL of these specifications.

### PART 4 – MEASUREMENT & PAYMENT

- 4.01 Crushed Surfacing Top Course: Measurement and payment for imported Crushed Surfacing Top Course shall be per ton where used beneath new pavement. Costs shall include compaction.
- 4.02 Imported Trench Backfill: Measurement and payment for imported trench backfill material shall be per ton as shown in the Proposal. Costs shall include compaction.
- 4.03 CDF: Measurement and payment for CDF shall be per cubic yard.

-- END OF SECTION 02202 --

# **SECTION 02221**

## **TRENCH EXCAVATION, BEDDING AND BACKFILL**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 RELATED WORK**

Refer to the following sections for work related to work specified in this section.

Section 02140 – WASTE DISPOSAL SITE  
Section 02201 – WATERING  
Section 02202 – IMPORT AGGREGATE MATERIAL  
Section 02990 – CLEANUP

#### **1.03 DESCRIPTION OF WORK**

- A. Work covered by this section consists of trench excavation, dewatering, bedding pipe with imported material, and backfilling with imported materials for sewer forcemains and culvert pipelines. Compaction required for trench foundation, pipe bedding and trench backfill is also covered in this section.
- B. Imported Aggregate items referenced in this section are as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications.
- C. Definitions:
  - 1. Trench Excavation is defined as the removal of all material encountered in the trench to the depths as shown or as directed. Trench excavation material shall be unclassified.
  - 2. Trench Foundation is defined as the bottom of the trench on which the pipe bedding is to lay and provides support for the pipe.
  - 3. Pipe Bedding is defined as the furnishing, placing and compacting of specified materials on the trench foundation so as to uniformly support the pipe. The total bedding depth shall be from a minimum of four (4) inches below the outside bell of the pipe to a point a minimum of six (6) inches above the top outside surface of the barrel of the pipe as shown on the Drawings.
  - 4. Trench Backfill is defined as the furnishing, placing and compacting of material in the trench between the top of the pipe bedding material and the bottom of the pavement base rock, ground surface or surface material.

#### **1.04 QUALITY CONTROL ASSURANCE**

- A. Soils and Backfill Compaction Standard: Moisture density standard ASTM D1557 or AASHTO T-180 method unless otherwise specifically approved.
- B. In-Place Density Determination: Sandcone method ASTM D1556 or Nuclear method ASTM D2922.

- C. Classification of Soils: ASTM D2487.
- D. On-site quality control monitoring of subgrade backfill and embankment materials and construction by certified independent laboratory approved, secured and paid for by the OWNER.
- E. Subgrade surface tolerance by true level straight edge.

#### 1.05 SUBMITTALS

- A. Sample of each import material for gradation and moisture density compaction curve test reports.
- B. Certification of gradation and compliance with referenced standards and moisture density standard test reports.
- C. Density test results in approved format.
- D. If at any time the CONTRACTOR changes the source and/or stockpile from which materials are obtained, samples and certifications of gradation for these new sources will be submitted at no additional cost to the OWNER.
- E. During construction, the OWNER may elect to have further gradation testing completed on the materials being furnished by the CONTRACTOR. This testing will be at the expense of the OWNER, however, the CONTRACTOR shall provide material samples as may be necessary to complete this testing. These material samples will be furnished from material available on the job site or from the CONTRACTOR's source and/or supplier.
- F. Grade control grid map with elevations and staking methods defined.

### PART 2 - PRODUCTS

#### 2.01 MATERIALS

- A. Materials proposed for use in the work shall not be used without the approval of the ENGINEER.
- B. The trench foundation shall be undisturbed native material. Where groundwater or other unstable conditions exist and the native material cannot support the pipe, additional excavation may be required, and the trench shall be stabilized with imported foundation material and trench foundation geogrid as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications.
- C. Pipe Bedding Material:
  - 1. Imported Pipe Bedding shall be as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications and be used as described in Paragraph 3.06 of this Section.

D. Trench Backfill:

1. Trench backfill shall be imported and shall be as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications and be used as described in Paragraph 3.07A of this Section.

PART 3 - EXECUTION

3.01 REQUIREMENTS PRIOR TO BEGINNING WORK

- A. Notify ENGINEER of any discrepancies between contractual requirements and site conditions prior to start of work.

3.02 STOCKPILING NATIVE MATERIALS FOR REUSE

- A. Sod: In commercial or residential areas, the existing twelve (12) inches of native material, including vegetation and topsoil shall be carefully removed from the pipe trench area and placed adjacent to the trench. The sod shall be stored in a manner to maintain the viability of the sod so that it can be replaced and readily re-establish itself.
- B. Wetland Areas: In wetland areas as identified on the Plans, the top 6 inches of soil is to be stockpiled in a designated area and then be reused as the upper most layer of backfill.

3.03 TRENCH EXCAVATION

- A. General: All trench excavation and backfill shall conform to the requirements of regulatory agencies having jurisdiction over the work or within the work site.
- B. Open Trench Limit: The length of open trench shall be kept to a minimum. The ENGINEER shall be the sole judge of the amount of trench allowed open based upon work conditions of the area. In normal cases, the open trench length shall not exceed 100 feet. All trenches shall be covered with suitable metal sheeting at the end of the workday.

1. All material excavated from trenches shall be hauled and disposed off-site.

- C. Trench Width: Trench width at the ground surface shall be kept to the minimum necessary to install the pipe in a safe manner. In all cases, trenches must be of sufficient width to allow for shoring and permit proper joining of the pipe and backfilling and compacting of material along the sides of the pipe. The minimum trench width in the pipe zone must provide a clear working space of 24 inches outside the maximum outside diameter of the pipe.

The top of the trench shall be confined to rights of way or easements. Special written agreements to extend the width may be made with the affected property owners, provided the agreements are first approved by the ENGINEER.

- D. Trench Grade: The CONTRACTOR shall excavate the trench to the lines and grades shown or as established by the ENGINEER, with proper allowance for pipe thickness, pipe bedding and foundation stabilization. The foundation upon which the bedding is to be placed shall be firm, undisturbed, and true to grade. If the trench is excavated below grade without authorization, the CONTRACTOR shall restore to grade with material of the type specified for pipe bedding at



no expense to the OWNER. The material shall be placed over the full width of the trench, in compacted layers not exceeding 6 inches.

- E. Disposal of Native Material: The CONTRACTOR shall provide waste sites for and dispose of all Native Material. Refer to Section 02140 - WASTE DISPOSAL SITE of these specifications.
- F. New sewer line shall be constructed without undermining the existing pavement. Contractor shall pay for any damage to pavement not designated to be removed per the Drawings.

### 3.04 DEWATERING

- A. The CONTRACTOR shall provide all materials, labor, and equipment necessary to keep excavations above the foundation level free from water during construction, and shall dewater and dispose of the water so as not to cause injury to public or private property or nuisance to the public. Sufficient pumping equipment in good working condition shall be available at all times for all emergencies, including power outage, and shall have available at all times competent workers for the operation of the pumping equipment.

### 3.05 TRENCH FOUNDATION

- A. When, in the judgement of the ENGINEER, the existing material in the bottom of the trench is unsuitable for supporting the pipe, the CONTRACTOR shall excavate below grade, as directed. The excavated material shall be replaced with imported foundation material as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications. Unsuitable foundation material removal will be considered as trench excavation.

### 3.06 PIPE BEDDING

- A. The CONTRACTOR shall spread the bedding smoothly to proper grade so that the pipe is uniformly supported along the barrel and shall excavate bell holes at each joint to permit proper assembly and inspection of the joint. Bedding under the pipe shall provide a firm, unyielding support along the entire pipe length. The CONTRACTOR shall place subsequent lifts of not more than six inches in thickness up to six inches above the top of the pipe, bringing lifts up together on both sides of the pipe. The material under the pipe haunches shall be compacted to 90% of the modified Proctor maximum dry density (ASTM D 1557, AASHTO T 180). Bedding disturbed by pipe movement, or by removal of shoring or movement of a trench shield or box shall be re-compacted prior to backfill. Special care shall be taken to provide adequate bedding support at wye or tee connections and adjacent to other structures, so as to avoid bending or shearing stresses at these critical points. The CONTRACTOR shall prevent pipe from movement either horizontally or vertically during placement and compaction of pipe bedding material.

When constructing sidesewer piping there may be conditions where clearance between the top of pipe and ground surface (specifically in the drainage ditch environment) are less than 12 inches. Under these circumstances, control density fill or concrete shall be used to bed the pipe and provide protective cover as detailed on the Drawings.

### 3.07 TRENCH BACKFILL AND COMPACTION

- A. Imported Trench Backfill as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications shall be used for all trenches.

The CONTRACTOR shall backfill the trench above the pipe bedding in successive lifts. Backfill shall not be allowed to free-fall into the trench until at least 3 feet of cover is provided over the top of the pipe. The method of compaction shall be modified as necessary to protect the pipe.

In non-structural areas, the trench backfill shall be compacted to 85% of the modified Proctor maximum dry density (ASTM D 1557, AASHTO T 180). Within roadways and paved surfaces, trench backfill shall be compacted to 95% of the modified Proctor maximum dry density within two feet of final subgrade elevation and to 92% of the modified Proctor maximum dry density below two feet. If the specified compaction is not obtained, the CONTRACTOR may be required to use a modified compaction procedure, adjust the backfill moisture content, and/or reduce the thickness of lifts. If approved materials meeting the specifications cannot be compacted to the required density regardless of compactive effort, moisture content or method, the ENGINEER may reduce the required density or direct that alternate material be used. In no case shall excavation and pipe laying operations proceed until the CONTRACTOR is able to compact the backfill to the satisfaction of the ENGINEER. The CONTRACTOR should recompact non-compliant backfill at no additional expense to the OWNER.

Water jetting is not acceptable as a method of compaction.

In place compaction tests will be made. CONTRACTOR shall remove and recompact material that does not meet specified requirements. The OWNER may charge the CONTRACTOR for the ENGINEER's time to re-test non-compliant trench backfill.

When the backfilling is complete, the CONTRACTOR shall finish the surface area as specified. In paved or graveled areas, the CONTRACTOR shall maintain the surface of the trench backfill level with the existing grade with crushed surfacing top course as specified in Section 02202 - IMPORT AGGREGATE MATERIAL of these specifications, or asphalt concrete, if directed, until final pavement replacement is completed and accepted by the OWNER.

### 3.08 SURFACE REMOVAL AND REPLACEMENT

- A. Topsoil: Where trenches cross lawns, garden areas, pastures, cultivated fields, or other areas on which reasonable topsoil conditions exist, the CONTRACTOR shall remove the topsoil to a depth of 6 inches and place the material in a stockpile. The CONTRACTOR shall not mix the topsoil with other excavated material. After the trench has been backfilled, the topsoil shall be replaced.

In lieu of stockpiling the topsoil, approved imported topsoil may be substituted, to the depth specified or approved, at no expense to the OWNER.

The CONTRACTOR shall maintain the finished grade of the topsoil level with the area adjacent to the trench until final acceptance by the ENGINEER and shall repair damage to adjacent topsoil caused by work operations. The CONTRACTOR shall remove all rock, gravel, clay, and any other foreign materials from the surface, regrade, and add topsoil as required.

#### PART 4 – MEASUREMENT & PAYMENT

- 4.01 Payment for trench excavation is considered as a unit price bid item found in the Bid Form. The costs for imported backfill material shall include the cost for compaction. All costs to dispose of unsuitable native material offsite shall be considered as incidental to the appropriate Trench Excavation items as found in the Bid Form.
- 4.02 Payment for native soil backfill shall be per the unit price bid item for Native Soil Trench Backfill.
- 4.03 All costs for dewatering shall be considered as incidental to the appropriate Trench Excavation items as found in the Bid Form.

-- END OF SECTION 02221 --

# **SECTION 02322 TUNNELING AND STEEL CASING**

## **PART 1 - GENERAL**

### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - specification sections, apply to work of this section.

### **1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Refer to following specification sections for work related to this section.

SECTION 02202 - IMPORT AGGREGATE MATERIAL  
SECTION 02221 - TRENCH EXCAVATION, BEDDING, AND BACKFILL  
SECTION 15060 – SEWER PIPING AND ACCESSORIES  
SECTION 15064 – HDPE PIPE

### **1.03 DESCRIPTION OF WORK**

- A. The CONTRACTOR shall provide all labor, equipment and materials to excavate, shore, and backfill the jacking and receiving pits, and furnish and install steel casings, carrier pipe and appurtenances as detailed on the Drawings and as described in this section.
- B. The WSDOT permit for the crossing of Route 6 is included in Appendix A. Contractor shall adhere to all conditions within the permit.
- C. A Soils Report is included in Appendix B and contains information related to the Highway 6 boring.

### **1.04 SUBMITTALS**

- A. The CONTRACTOR shall submit to the ENGINEER the following information at least 10 working days prior to beginning the construction of each bore casing: general boring/tunneling work plan and schedule; boring/tunneling equipment details; jacking system details; estimated maximum jacking forces; line and grade control and steering procedures; steel pipe submittals in accordance with requirements of Part 2 – Products of this specification; thrust block design; bentonite injection system; jacking/receiving pit shoring design and shop drawings; dewatering system; carrier pipe skid details; and spoil disposal details.

The CONTRACTOR shall submit to the ENGINEER a plan for minimizing loss of ground and settlement when breaking out of the jacking pit and breaking into the receiving pit, as well as when boring or tunneling work is not occurring.

## **PART 2 - PRODUCTS**

### **2.01 CASING PIPE**

- A. The casing pipe shall be 24-inch diameter with minimum 0.4375-inch thick walls, shall be smooth (free from rust and scale), and shall meet the requirements of ASTM A53 Grade B with minimum yield strength of 35,000 psi. No hydrostatic pressure testing is required for the casing pipe. Welded field joints shall be full circumference welded butt joints constructed in accordance with AWWA Specification C206. Non-welded steel pipe material with an integral press fit connection with a profile that is computer numeric controlled (CNC) machined such as Permalok (1-800-280-5511) or equal is acceptable for this installation. Submittals are required on all steel pipe and shall consist of shop drawings and a certificate of compliance with all parts of this specification. Submittals shall also include original mill test reports on all pipe incorporated into this bid item. All pipe material shall be new and previously unused.

## 2.02 CARRIER PIPE

- A. The carrier pipe shall be 14-inch diameter HDPE SDR11 sewer pipe as indicated on the Drawings and as specified in Section 15064 of these Specifications. The carrier pipe shall be supported within the casing pipe either by wood skids attached to the pipe with stainless steel banding or by casing insulators in a manner which ensures adequate clearance and consistent alignment and grade within the casing pipe.

## 2.03 CASING END SEALS

- A. Casing end seals shall be designed to keep foreign particles from entering the casing. End seals may be concrete of length equal to the diameter of the casing pipe, or pull-on style rubber end seals with stainless steel bands and clamps.

## 2.04 BACKFILL MATERIAL

- A. Backfill material for jacking/receiving pits shall be Import Trench Backfill as specified in Section 02202 of these specifications.

## 2.05 ANNULAR SPACE

- A. The annular space between the casing and carrier pipe shall be filled with a clean, dry, sand free of organic or other deleterious material.

## PART 3 - EXECUTION

### 3.01 BORING

- A. Bored installations shall have a hole diameter which shall not exceed the O.D. of the steel casing pipe by more than 1 inch. If excessive voids or too large a bored hole results, or if it is necessary to abandon a bored hole, prompt remedial measures shall be taken by the CONTRACTOR, subject to review by the ENGINEER and the OWNER of the facility being crossed.

### 3.02 CASING PIPE

- A. All steel pipe joints (welded or integral press fit) shall provide a rigid, watertight installation. If integral press fit pipe is utilized the pipe must be installed in accordance

with the pipe manufacturer's recommendations. Weld sections of the casing pipe with a continuous circumferential weld. Provide stress transfer across the joints capable of resisting the jacking forces involved.

- B. Casing pipe shall be installed to the lines and grades shown on the Drawings. The installed casing shall slope continuously in the direction shown on the Drawings. Casing inverts shall account for carrier pipe invert conditions. Correction of any grade problems may include removing and replacing the casing.
- C. Specific areas are shown on the Drawing for jacking or boring pits. The CONTRACTOR shall be responsible for the actual size, design and construction of the jacking or boring and receiving pits. The CONTRACTOR shall maintain all casing installation activities within the rights-of-way or easements provided. Where existing utilities may interfere with the CONTRACTOR's operation, the CONTRACTOR shall design the boring operation so as to transfer forces around the utility without disturbing it, or provide temporary utilities during the boring operation.

### 3.03 BACKFILLING

- A. Backfilling of jacking/receiving pits shall be accomplished in accordance with Standard Specification Section 7-08.3(3) Backfilling.

## PART 4 - MEASUREMENT AND PAYMENT

- 4.01 The unit price for the bored or tunneled crossing shall constitute full payment for furnishing all labor, equipment, and material for performing all work including excavation, shoring, dewatering and backfill of jacking/receiving pits, boring, tunneling, steel casing pipe, carrier pipe annular spacers, sand for filling annular space and all work as required for a complete and functional crossing. Carrier pipe placed within the casing shall be paid separately under the appropriate HDPE Pipe bid item. Payment for bored and jacked steel piping will be at the lineal foot price for the Bid Item "Tunneling and Steel Casing".

-- END OF SECTION 02322 --

# SECTION 02485 HYDROSEEDING

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - specification sections, apply to work of this section.

### 1.02 DESCRIPTION OF WORK

- A. Work under this Section includes all labor, supervision, equipment, tools and materials required to seed the areas where sewer line construction operations have disturbed an existing vegetative cover and where erosion protection is not provided by alternate methods.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Seed Mix:
  - 50% Native Red Fescue
  - 20% California brome
  - 20% Blue wildrye
  - 10% Large leaf lupineMinimum Germ: 90%  
Rate: 1 lb./1,000 S.F.
- B. Fertilizer: 18-16-16 with 30% Nitrogen (as derived from IBDU)  
Rate: 250 lbs./acre
- C. Mulch : Wood Cellulose Fiber  
Rate: 1,600 lbs./acre

## PART 3 - EXECUTION

### 3.01 APPLICATION

- A. Surface reclamation by hydroseeding will be accomplished along all regions directly disturbed by the CONTRACTOR's operations. The final limits for hydroseeding operations shall be as directed by ENGINEER.

The surface for all areas designated for hydroseeding shall be graded and rolled prior to material application. Apply grass seed mixture at the rate specified herein. Sod, seed, fertilizer and mulch material will be placed by the hydraulic method unless otherwise directed by the ENGINEER.

The CONTRACTOR shall maintain the area following the hydroseeding application until all work on the project has been completed and accepted. Prior to acceptance of the work, all damaged areas shall be reshaped and corrected with no additional compensation thereof.

### 3.02 HYDRAULIC METHOD

- A. Seeding by hydraulic methods shall consist of furnishing and placing slurry made of seed, fertilizer, cellulose wood fiber and water.
- B. The cellulose wood fiber shall be added to the water slurry in the hydraulic seeder after the proportionate amounts of seed and fertilizer have been added. The slurry mixture shall then be combined and applied in such a manner that will result in an even distribution of all materials at the application rates specified.
- C. Hydraulic seeding equipment shall be capable of maintaining a continuous agitation so that a homogeneous mixture can be applied through a spray nozzle. The pump shall be capable of producing sufficient pressure to maintain a continuous, non-fluctuating spray capable of reaching the extremities of the seeding area or sufficient hose shall be provided to reach areas not practical to seed from the nozzle unit.

## PART 4 - MEASUREMENT AND PAYMENT

- 4.01 All costs associated with hydroseeding and related work specified in this section shall be included in the Hydroseeding unit price bid item as found in the Bid Form. All required hydroseeding will be measured and paid per acre within the limits of the project site. The CONTRACTOR shall be responsible for surface restoration and hydroseeding all disturbed areas outside the limits of the project site created by the CONTRACTOR's operation at no expense to the OWNER.

-- END OF SECTION 02485 --



# SECTION 02513 ASPHALT CONCRETE PAVEMENT

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

### 1.02 DESCRIPTION OF WORK

- A. Removing and repairing existing asphalt where affected by trenching and other construction activities shall be in accordance with these specifications and the typical repair section shown on the Drawings. Temporary cold patching of the areas to be repaired shall be done with cold plant mix asphalt.
- B. Furnishing and installing prepared aggregate subbase is specified in SECTION 02202 - IMPORT AGGREGATE BASE, and typical cross-sections as shown on the Drawings.

### 1.03 QUALITY ASSURANCE

- A. Comply with Section 5-04 of the Standard Specifications.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

- A. Asphalt: Asphalt shall be aged residue grade AR-4000W or equivalent and shall conform to the characteristics for paving asphalt as specified in Section 9-02.1(4) of the Standard Specifications.
- B. Cold Plant Mix Asphalt: Cold plant mix asphalt shall be as produced at a commercial asphalt plant using Class A aggregate and MC250 liquid asphalt or equivalent.
- C. Class of Asphalt Concrete: The class of asphalt concrete to be used shall be Class ½" – PG58H-22 as referenced in Section 5-04 of the Standard Specifications.
- D. Tack Coat Asphalt: Tack coat asphalt shall be the following emulsified asphalt, CSS-1 or equivalent.
- E. Pavement Markings: Shall be per Standard Specification Section 8-22.2.
- F. Base Course Aggregate: Refer to SECTION 02202 - IMPORT AGGREGATE MATERIALS under Crushed Surfacing Base Course.
- G. Top Course Aggregate: Refer to SECTION 02202 - IMPORT AGGREGATE MATERIALS under Crushed Surfacing Top Course.

## PART 3 - EXECUTION

### 3.01 TEMPORARY PATCHING

- A. All trenching and excavation areas which will not receive permanent pavement repair for time in excess of one week from pavement removal shall be cold patched after the trench or excavation area is backfilled. The trench or excavation shall be brought near grade with a temporary lift of Crushed Surfacing Base Course as specified in Section 02202 - IMPORT AGGREGATE MATERIALS of these specifications and topped with a minimum of 1-inch of cold plant mix asphalt. The cold patch shall be fully maintained by the CONTRACTOR until the permanent pavement repair is made. Residential driveways to receive pavement repair may be patched with Crushed Surfacing Base Course only and will not require a cold patch.

### 3.02 PREPARATION OF FOUNDATION

- A. All bases and foundations on which the pavement is to be constructed shall meet the applicable specifications and be approved prior to the start of paving. Existing bases and foundations shall be reconditioned as specified shown on the Drawings, or directed.
- B. Broken or ragged edges of existing paved surfaces underlying or abutting the new pavement shall be saw cut back to firm material. Surfaces against which asphalt concrete is to be placed shall be treated with an asphalt tack coat as specified in items 2.01(D) and 3.05 of this section.
- C. Depressed areas in existing pavement shall be tacked and leveled with an approved asphalt concrete mixture and compacted. The leveling work shall be a separate operation and performed as specified. Leveling material shall be spread by means of a paving machine except in small or irregular areas where the ENGINEER may permit use of other equipment. At the direction of the ENGINEER, leveled areas shall be retacked prior to placement of subsequent material.

### 3.03 REMOVAL AND DISPOSAL OF PAVED AREAS

- A. In removing sidewalks and paved areas the CONTRACTOR shall:
  - 1. Haul broken-up pieces to a permitted off-project site.
  - 2. Make a full-depth vertical sawcut between any existing pavement or sidewalk that is to remain and the portion to be removed. Any edges damaged during construction shall be re-sawed by the CONTRACTOR prior to placing the new surfacing at no additional cost to the OWNER.
  - 3. Replace at no expense to the OWNER any existing sidewalk or pavement designated to remain that is damaged during the removal of designated sidewalk or pavement.

### 3.04 TACK COAT APPLICATION

- A. Tack coat shall be applied in accordance with the requirements of this section. The surface upon which the tack coat is applied shall be dry and shall be cleaned of dirt, dust, and other matter detrimental to the adherence of the asphalt.
- B. The tack coat shall be spread with pressure spray equipment which will provide for uniform coverage at the prescribed rates. The rate shall be as specified or as determined by the ENGINEER and will be in the range of 0.02 to 0.08 gallons of retained asphalt per square yard. Tack coat shall not be applied during wet or cold weather or during darkness.
- C. Building paper shall be placed over the end area of previously placed layers and the adjoining application shall start on the paper, after which the paper shall be removed and disposed of.
- D. The CONTRACTOR shall protect structures and vegetation from being spattered, stained or marred and shall remove stains and remedy disfigurements. Hand application or other approved means shall be used on areas inaccessible to the distributor.
- E. Tack coat shall be applied only as far in advance as is appropriate to insure a tacky condition of the asphalt at the time of placing the next course of pavement material. Application shall be scheduled so as to offer the least interference to traffic and to permit one-way traffic without pick-up or tracking. The tack coat shall be covered the same day as applied. Traffic shall be controlled with flaggers, detours, or other approved means.

### 3.05 THICKNESS AND NUMBER OF LAYERS OF ASPHALT CONCRETE

- A. Comply with Section 5-04.3(9) of the Standard Specifications except as follows:
  - 1. The overall thickness of the compacted asphalt concrete pavement shall be as shown on the Drawings for the various pavements being constructed. Asphalt to be placed in thickness of 4 inches or more shall be placed in two equal lifts.

### 3.06 PLANING

- A. Comply with Standard Specification Section 5-04.3(14).

## PART 4 – MEASUREMENT & PAYMENT

- 4.01 All costs for removal and disposal of existing asphalt and all costs for preparatory work, supplying, installing, and finishing new asphalt concrete pavement for replacing and repairing existing asphalt where affected by trenching and other construction activities shall be paid per ton under Bid Item "HLMA Class ½" – PG58H-22" found in the Bid Form. All costs for providing, placing, and maintaining temporary cold patch shall be incidental to this bid item. OWNER will pay for testing.

-- END OF SECTION 02513 --

## **SECTION 02990 CLEAN-UP**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work of this section.

#### **1.02 DESCRIPTION OF WORK**

- A. Work covered in this section includes cleaning and removing all refuse and unused material resulting from work and preparing the project site for acceptance by the OWNER.

### **PART 2 - PRODUCTS**

#### **2.01 MATERIALS**

- A. CONTRACTOR shall provide all labor, equipment and materials required to accomplish specified clean-up work.

### **PART 3 - EXECUTION**

#### **3.01 GENERAL**

- A. The CONTRACTOR shall perform all necessary work as described herein:
  - 1. As the work progresses and immediately after completion of the work, the CONTRACTOR shall clean up and remove all refuse and unused materials of any kind resulting from the work. If the CONTRACTOR fails to commence the cleanup within 24 hours after directed by the ENGINEER, the ENGINEER may have the work performed by others. The cost shall be borne by the CONTRACTOR and may be deducted from payments due or to become due to the CONTRACTOR.
  - 2. After the work is completed and before final acceptance of the work, all areas affected by the work shall be neatly finished and all equipment, temporary structures, rubbish and waste shall be removed from the work area.

#### **3.02 SURFACE DRESSING**

- A. Slopes, sidewalk areas, planting areas, ditches, and the roadway shall be smoothed and dressed to the required cross section and grade without damaging the work or existing improvements, trees or shrubs.
- B. Upon completion of the cleanup, the project shall appear uniform in all respects. Existing planting areas shall be graded to match the elevation of the sidewalk or curb with allowance made for settlement.

### 3.03 CLEANING DRAINS

- A. Drainage facilities such as inlets, catch basins, culverts and open ditches shall be cleaned of all excess material or debris resulting from the work.

### 3.04 CLEANING PAVED SURFACES AND APPURTENANCES

- A. Pavement surfaces, sidewalks, manhole covers, monuments, poles, vaults, signs and other items within the limits of the project shall be cleaned as directed by the ENGINEER and OWNER.

### 3.05 RESTORING PLANTED AREAS

- A. Former grassed and planted areas shall be hand-raked and dragged to be free from rocks, gravel, clay or any other foreign material, and ready in all respects for seeding.
- B. The finished surface shall be free draining and free from holes, rough spots, or other surface features detrimental to a seeded area.
- C. Wetland areas shall be free from rocks, gravel, clay, or any other foreign material, and ready in all respects for seeding.

### 3.06 RESTORING MOBILIZATION, BORROW AND DISPOSAL AREAS

- A. Uprooted stumps, felled trees, rock, discarded materials, rubbish, and debris shall be removed and properly disposed of. Equipment, tools and supplies shall be removed and the areas restored to a neat and orderly condition.

### 3.07 DISPOSAL OF WASTE MATERIAL

- A. Excess and unsuitable excavated material or construction debris shall be removed and properly disposed of. Where brush and trees beyond the limits of the project have been disturbed, they shall be removed and disposed of and restored as directed at no expense to the OWNER.

### 3.08 REMOVAL OF TEMPORARY SIGNS

- A. Warning, regulatory, guide, or project signs shall not be removed prior to formal acceptance, except as directed.

## PART 4 – MEASUREMENT & PAYMENT

- 4.01 All costs necessary to perform the work specified in this section shall be considered incidental to the project and no direct payment will be made to the CONTRACTOR for work specified in this section.

-- END OF SECTION 02990 --

**Division 3**  
**Concrete**

Section 03010 – Concrete Work

# SECTION 03010 CONCRETE WORK

## PART I - GENERAL

### 1.01 DESCRIPTION OF WORK

- A. The extent of concrete work is shown on the drawings, and includes all work associated with construction of concrete driveway approaches, curb and gutter, thrust blocks, valve box collars and bollards.

### 1.02 QUALITY ASSURANCE

- A. Concrete Testing Service: Owner may employ a testing agency to perform required testing of materials, mix design, slump, air content, temperature, in accordance with ACI 301 Chapter 16 Testing.

## PART 2 - PRODUCTS

### 2.01 CONCRETE

- A. All concrete work shall be accomplished in accordance with WSDOT Standard Specification Section 6-02, except the minimum 28-day compressive strength shall be 3,000 psi.

### 2.02 FILL

- A. Fill material used as the base under the reinforced concrete slab shall be crushed surfacing top course as specified in Section 02202 Import Aggregates.

## PART 3 - EXECUTION

### 3.01 CONSTRUCTION

- A. Construction requirements shall be per WSDOT Standard Specification Section 6-02.3.
- B. Concrete curb and gutter shall be construction per the detail on the drawings.

## PART 4 – MEASUREMENT AND PAYMENT

- 4.01 All costs for labor, equipment and work necessary to remove the existing and to construct concrete curb and gutter work for this project specified in this section and shown on the drawings shall be included in the Concrete Curb and Gutter per linear foot bid item as found in the Bid Proposal.
- 4.02 All costs for labor, equipment and work necessary to remove the existing driveway approaches and to construct concrete driveway approaches specified in this section and as shown on the Drawings shall be included in the Concrete Driveway including demo per square yard bid item as found in the Bid Proposal.
- 4.02 All costs for labor, equipment and work necessary to construct other miscellaneous concrete work for this project specified in this section and shown on the drawings shall be incidental to other items as found in the Bid Proposal.

- END SECTION 03010 -



Division 4 – Division 14

VACANT

# Division 15

## Mechanical

Section 15060 – Sewer Piping  
Section 15064 – HDPE Pipe

# **SECTION 15060**

## **PIPING, FITTINGS, VALVES, GATES AND ACCESSORIES**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and General Provisions for Contract, including General and Supplementary Conditions and Division 1 – General Requirements, apply to work of this section.

#### **1.02 DESCRIPTION OF WORK**

- A. Extent of piping and related work, as indicated on the Drawings and by requirements of this section.
- B. Construction of 12-inch diameter ductile iron (DI) forcemain sewer piping including tracer tape/wire, connecting to existing sewer lines and associated work. The DI pipe is to be used for the bridge crossing and HDPE is to be used for the rest of the project.
- C. Trenching and backfilling required in conjunction with piping is specified in applicable Division-2 sections.

#### **1.03 RELATED WORK**

- A. Refer to the following sections for work related to work specified in this section:

- Section 01300 – SUBMITTALS
- Section 01570 – TRAFFIC PROTECTION & CONTROL
- Section 02202 – IMPORT AGGREGATE MATERIAL
- Section 02221 – TRENCH EXCAVATION, BEDDING AND BACKFILL
- Section 02322 – TUNNELING AND STEEL CASING
- Section 03405 – VAULTS & ACCESSORIES
- Section 15064 – HDPE PIPE

#### **1.04 QUALITY ASSURANCE**

- A. Plumbing Code Compliance: Comply with applicable portions of National Standard Plumbing Code pertaining to plumbing materials, construction and installation of products.
- B. Accuracy of Data: Data provided herein and on Drawings are as exact as could be determined. Their absolute accuracy is not guaranteed. Drawings and Specifications are for the assistance and guidance of the CONTRACTOR; exact distances and elevations will be governed by structures and equipment selected. The CONTRACTOR shall be responsible for verifying location and dimensions of existing piping and equipment and shall provide adapters, shims, off-sets, etc., that may be required for a complete installation.
- C. Sewer piping and accessories shall be inspected for damage prior to installation. Any damaged material shall be replaced at no cost to the OWNER. Pipe internal surface shall be free of all cuts, gouges or scratches. Excessive damage will require removal and replacement of the damaged pipe section.

- D. Standard Specifications: Construction and testing must comply with 2018 Standard Specifications for Road, Bridge and Municipal Construction.
- E. Referenced Standards. Where all or part of a Federal, ASTM, ANSI, AWWA, etc., standard specification is incorporated by reference in these Specifications, the reference standard shall be the latest edition and revision.

#### 1.05 SUBMITTALS

- A. Shop Drawings: Within 21 calendar days of the contract award, provide submittals complying with Section 01300 including manufacturer's complete descriptive information for the items specified herein. Information shall include materials of construction, standard literature, size and dimensions, as required by the ENGINEER for review.

Where standard information sheets are submitted, they shall be clearly marked to indicate features to be furnished under this Contract. Submit six copies of all data for each item of piping. Each set of copies shall be individually enclosed in a ring binder or other appropriate cover.

### PART 2 - PRODUCTS

#### 2.01 GENERAL

- A. Provide piping materials and factory-fabricated piping products of sizes, types, pressure ratings, and capacities as indicated. Where not indicated, provide proper selection as determined by ENGINEER to comply with installation requirements. Provide sizes and types matching piping and equipment connections; provide fittings or materials that match pipe materials.
- B. All piping and accessories shall be new and of good quality.
- C. Pipe shall be stored on clean, level ground to prevent undue scratching or gouging of the pipe. Stacked pipe shall be stored in accordance with manufacturer's recommendations to minimize pipe deflection.

#### 2.02 SANITARY SEWER PIPING, FITTINGS, AND APPURTENANCES

- A. Ductile iron pipe shall be minimum standard thickness Class 52, per AWWA C151 with SewperCoat® or Protecto 401 protective coating, or approved equal, on the interior. Where the pipe is exposed, pipe joints shall be TR FLEX.
- B. Fittings for buried ductile iron shall be compact ductile iron fittings per AWWA C153 with SewperCoat® or Protecto 401 protective coating, or approved equal, on the interior and shall be mechanical joint and shall utilize thrust blocking unless otherwise noted in the Drawings.
- C. Fittings for exposed piping shall be ductile iron fittings per AWWA C110 with SewperCoat® or Protecto 401, or approved equal, on the interior.

- D. Bolts, nuts and washers used for securing fittings shall be of similar materials. Steel bolts shall meet the requirements of ASTM A307 or ASTM F568 for carbon steel or ASTM F593 or ASTM F738 for stainless steel. Nuts shall meet the requirements of ASTM A563 or ASTM A563M for carbon steel or ASTM F594 or ASTM F836 for stainless steel. Iron bolts and nuts shall meet the requirements of ASTM A536, Grade 65-45-12. Hardware for all below grade and submerged piping with flanged fittings shall be 316 stainless steel. Hardware for all above grade piping shall be carbon steel.
  
- E. Couplings: “straight” coupling adapters used to join plain end pipe shall meet the requirements of AWWA C219. Hardware shall be stainless steel. Couplings shall be Romac Style 501 or equal.
  
- F. Pipe Insulation and Jacketing:
  - 1. Insulation shall be of rigid foam performed to fit outside of 10-inch ductile iron pipe. Insulation shall be 1-1/2 –inch thick TRYMER Rigid Foam Insulation as manufactured by DOW Chemical Company or approved equal.
  - 2. Jacketing shall be 0.016-inch aluminum stucco embossed jacketing. Jacketing shall be secured with ½-inch stainless steel bands 12-inch on-center. Aluminum jacketing shall be INSUL-MATE as manufactured by RPR Products, Inc. or equal.
  
- G. Pipe Hanger Assembly:
  - 1. Materials for Hanger Assembly shall be as shown in the Drawings and shall be prefabricated assemblies as indicated on the Drawings manufactured by Grinnell or equal.
  
- H. Air release valves on the sewer forcemain shall be ARI (or approved equal) as shown on the Drawings. Air release valve piping shall be HDPE and brass, per the Drawings.

## 2.03 VALVES

- A. Eccentric Plug Valves and Accessories:
  - 1. Eccentric Plug Valves:
    - a. Non-lubricated, eccentric plug type with cast iron body and nickel seat
    - b. Flanged 150 lb. end connections
    - c. NBR, Acrylontrile 0 butadiene V-type stem seal
    - d. NBR, Acrylontrile – Butadiene V-type plug facing
    - e. Gear operated, buried actuator
    - f. Stainless steel, 316 bolts for valve and buried actuator
    - g. DeZurik Series 100, Fig. 118, F, 6, RS25, ABG-12-H12
  - 2. Options: Tnemec Pota Pox Epoxy paint on interior with surface preparation, 3 coats.
  - 3. Accessories:
    - a. Valve Box: per standard details (see Drawings).

## PART 3 - EXECUTION

### 3.01 GENERAL

- A. All pipe, valves and fittings shall be installed in strict accordance with the manufacturer's recommendations and/or specifications, using the best commercial trade practice. Any

special tools required for laying, jointing, cutting, etc., shall be supplied by the CONTRACTOR. Seal end of line with a tight fitting plug when the pipe is not being laid.

- B. **Forcemain Shut Down:** The CONTRACTOR shall be required to coordinate his activities with the City of Chehalis Sewer Superintendent. All existing sewers must comply with the Washington State Department of Ecology regulations and in general, must be maintained with no bypass or overflow of raw sewage onto the ground or into the surrounding environment.

The existing forcemain can be shut down during the day for up to 4 hours during the summer months in order to make connections. The CONTRACTOR may also use a temporary pipe to transport sewage to allow for the removal of the existing bridge crossing pipe before the new permanent pipe is installed.

- C. The pipe and accessories shall be stored in a manner to protect it from damage. The interior of stored pipe should be kept free of debris and other foreign matter. All valves and accessories shall be delivered in a clean, undamaged condition and stored off the ground, to provide protection against oxidation caused by direct ground contact. All defective or damaged materials shall be replaced with new materials at no cost to the OWNER.
- D. **Pipe Handling:** Pipe and accessories shall be handled in such a manner as to insure against damage. Particular care shall be taken not to injure pipe coating. Dropping of pipe or fittings shall be cause for rejection. When lifting with slings, only wide fabric choker slings capable of safely carrying the load shall be used to lift, move, or lower pipe and fittings. Wire rope and chain are prohibited. Slings shall be of sufficient capacity for the load, and shall be inspected before use. Worn or damaged equipment shall not be used.
- E. Where sizes of small pipe are omitted from the Drawings and not mentioned in the Specifications, the sizes to be used shall correspond to plumbing code requirements and shall be sized for the function to be performed and as accepted by the ENGINEER.
- F. Whenever pipe requires field cutting to fit, work shall be done by a machine in a satisfactory manner so as to leave a smooth end at right angles to axis of pipe.
- G. Where existing piping is to be removed to accommodate the construction of new sewer pipe, removal and disposal of the existing piping shall be incidental to the item for construction of the new pipe.
- H. Trenching that is greater than 4 feet deep shall have trench safety and/or shoring as required by the Washington Administrative Code, Chapter 296-155, Part N (WISHA).
- I. Two weeks prior to beginning construction the CONTRACTOR shall submit to the ENGINEER and the City of Chehalis a plan for review and approval to maintain use of the existing sewer. The operation of the Riverside Rd. pump station will need to be considered before live connecting the existing forcemain sewer. New sewer pipe shall be installed on clean, dry bedding free from sewage and other materials. A clean flow pattern for sewage flows must be in place at the end of each working day.

### 3.02 MECHANICAL JOINT PIPING

- A. Mechanical joint piping shall be installed utilizing best trade practices with torque wrenches used to avoid overstressing bolts. Piping shall be installed using recommended procedures outlined in the "Handbook of Cast Iron Pipe" as published by the Cast Iron Research Association which in part requires that all contact surfaces of rubber seal with pipe be wire brushed, and the spigot to be centrally located in the bell. When tightening bolts, it is essential that the gland be brought up toward the pipe flange evenly, maintaining approximately same distance between gland and face of flange at all points around socket.

### 3.03 SEWER LINE INSTALLATION

- A. Pipe Laying: After an accurate grade line has been established, the pipe shall be laid in conformity with the established line and grade in the properly dewatered trench. Mud, silt, gravel and other foreign material shall be kept out of the pipe and off the jointing surfaces.

All pipe shall be laid to conform to the prescribed line and grade shown on the Drawings, within the limits that follow:

1. Sewer pipe shall be laid to a true line and grade at the invert of the pipe and the CONTRACTOR shall exercise care in matching pipe joints for concentricity and compatibility. In no case shall two pipes be joined together with ends having the maximum manufacturer's tolerance. The invert line may vary from the true line and grade within the limits stated to develop uniformity, concentricity, and uniform compression of jointing material provided such variance does not result in a reverse sloping invert. The limit of the variance at the invert shall not exceed plus or minus 0.03 foot at the time of backfill.

The sewer pipe shall be laid up grade from point of connection from the designated starting point indicated on the drawings. The sewer pipe shall be installed with the bell end forward or upgrade. When pipe laying is not in progress, the forward end of the pipe shall be kept tightly closed with an approved temporary plug.

Where existing piping is to be removed to accommodate the construction of new sewer pipe or manholes, removal and disposal of the existing piping shall be incidental to the item for construction of the new pipe.

- B. Gasketed Joints: Pipe handling after the gasket has been affixed shall be carefully controlled to avoid disturbing the gasket and knocking it out of position, or loading it with dirt or other foreign material. Any gaskets so disturbed shall be removed, cleaned, replaced, and relubricated before joining the sections.

Care shall be taken to properly align the pipe before joints are entirely forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling, or crane to minimize unequal lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned. Since most gasketed joints tend to creep apart when the end pipe is deflected and straightened, such movement shall be held to a minimum once the joint is home.

Sufficient pressure shall be applied in making the joint to ensure that it is home, as described in the standard installation instructions provided by the pipe manufacturer. Sufficient restraint shall be applied to the line to ensure that joints once home are held so,

until fill material under and alongside the pipe has been sufficiently compacted. At the end of the work day, the last pipe shall be blocked in an effective way to prevent creep.

- C. Backfilling of Trenches: Refer to Section 02221 - TRENCH EXCAVATION, BEDDING AND BACKFILL of these specifications for material requirements, and compaction specifications. Walking on the pipe shall not be allowed until at least one foot of backfill has been placed upon it.

### 3.04 CONNECTION TO EXISTING PIPE

- A. When exposing an area where existing main sewer is to remain in service but connected to new pipe or manhole, CONTRACTOR shall exercise great care in order to protect existing pipe from damage. Any pipe or manhole damaged or disturbed by the CONTRACTOR which is not scheduled for replacement, will be repaired or replaced by the CONTRACTOR at no cost to the OWNER.
- B. In general, entire pipe sections should be removed and replaced except where it is necessary to cut pipe bells for making connections. Existing sewer main shall be cut to provide clean square pipe ends for joining new ductile iron pipe.
- C. Where existing pipe sections are cut, a minimum of 24 inches of the existing pipe between the cut end and the next pipe shall remain in place.

### 3.05 FORCEMAIN TESTING

- A. Pressure Testing: The sewer forcemain and appurtenances shall be pressure tested after backfilling by the method outlined below.

All work involved in testing sewer lines as required herein shall be completed within 15 working days after backfilling of sewer lines and structures. Any further delay will require the written consent of the ENGINEER. The CONTRACTOR shall furnish all labor, materials, tools, and equipment necessary to make the test and perform all work incidental thereto. The CONTRACTOR shall perform the tests under the direction and in the presence of the ENGINEER. Precautions shall be taken to prevent joints from drawing during tests, and any damage resulting from these tests shall be repaired by the CONTRACTOR at no expense to the OWNER. The manner and time of testing shall be outlined as below and shall be subject to approval by the ENGINEER.

- 1. Testing equipment and procedures:
  - a. Provide all necessary piping connections between section being tested and water supply
  - b. Provide necessary pumping equipment, water meter, pressure gage and other equipment, materials and facilities for testing
  - c. Provide all bulkheads, flanges, valves bracing, blocking or other temporary sectionalizing devices required.
  - d. Remove all temporary sectionalizing devices after tests are completed
  - e. Install adequate venting in line to be tested
  - f. Fill line and apply pressure with force pump
  - g. Maintain pressure with pump for duration of test without interruption



- h. Measure pressure with calibrated and tested gage acceptable to the ENGINEER
  - i. Maintain pressure long enough so the ENGINEER can inspect all piping but not less than 3 hours.
  - j. Repeat test after repairs until repair acceptable to ENGINEER
2. Leaks:
- a. Make all joints and seams watertight and airtight whether tested or not
  - b. Inspect all exposed shop and field welded seams
  - c. Mark leaks clearly
  - d. Do not remove marks until leak corrected
  - e. Repair welded joints by chipping out defective parts and rewelding
  - f. Do not hammer welds

All wyes, tees, and stubs shall be plugged with flexible jointed caps, or acceptable alternate, securely fastened to withstand the internal test pressure. Such plugs or caps shall be readily removable, and their removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.

Before applying pressure, all piping and all components in the test section must be restrained. Mechanical connections must be completely installed and tightened per manufacturer's instructions. If backfill provides restraint, it must be properly placed and compacted. Joints and connections may be exposed for inspection. End closures must be suitable for pressure service and pressure-rated for the test pressure. Ensure that all connections to test equipment are secure. Disconnect or isolate all low pressure filling lines and all other parts that are not to be subjected to test pressure.

Thrust blocks shall be provided for all piping specified for pressure testing unless otherwise noted. Thrust block sizes shall be determined by CONTRACTOR and the ENGINEER and shall be so placed as to allow future maintenance of fitting without breaking out thrust block. In general, forms or reinforcing will not be required for thrust blocks. Thrust block concrete shall bear directly against undisturbed earth, and shall be poured and cured before pipe is subjected to any hydrostatic pressure. Details of thrust blocks are shown on the Drawings.

The test pressure shall be measured at the lowest elevation in the test section and shall be the lower of: (a) 150 psi provided that all components in the test section are rated for the test pressure, or (b) the pressure rating of the lowest pressure rated component in the test section. Do not subject lower pressure rated, non-polyethylene parts or devices to pressures above their pressure rating. Lower pressure rated parts shall be removed or isolated from the test section to avoid damage or failure. Vent isolated parts or equipment to atmosphere.

Fill the restrained test section completely with test liquid (water). Ensure that there is no air trapped in the test section. Gradually pressurize the test section to test pressure, and maintain test pressure for three (3) hours.

For the ductile iron pipe section leakage shall be defined as the quantity of water supplied into the pipe, or any valved section of it, necessary to maintain the specified test pressure after the pipe has been filled with water and the air expelled. No pipe installation will be accepted until the leakage is less than 0.01 gallon per joint per hour as determined by the formula:

$$L = \frac{ND(P)^{1/2}}{7400}$$

L = allowable leakage in gph  
 N = number of joints in length of pipe testing  
 D = nominal diameter of pipe in inches  
 P = average test pressure during leakage test, in psi

The maximum test duration is eight (8) hours including time to pressurize, time for initial expansion, time at test pressure, and time to depressurize the test section. If the test is not completed due to leakage, equipment failure, or for any other reason, depressurize the test section completely, and allow it to relax for at least eight (8) hours before pressurizing the test section again.

If any sewer installation fails to meet the requirements of the test method, the CONTRACTOR shall determine, at no expense to the OWNER, the source or sources of leakage and shall repair or replace all defective materials or workmanship at no expense to the OWNER. The complete pipe installation shall meet the requirements of the test method used before being considered acceptable. Any leaks discovered within 1 year after final acceptance by OWNER shall be repaired at CONTRACTOR's expense.

## PART 4 – MEASUREMENT & PAYMENT

- 4.01 DI Sewerline pipe including all necessary labor, equipment and materials shall be measured and shall be paid per linear foot as found in the Bid Form. The linear foot price shall include full compensation for pipe and placement including bridge hangers, pipe insulation and jacketing. Connections to the HDPE on both sides of the bridge shall be included in this bid item.

-- END SECTION 15060 --

# SECTION 15064

## HDPE PIPE

### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. The extent of high-density polyethylene (HDPE) pipeline construction is indicated on the Drawings and specified herein. Work includes construction of a 14-inch SDR11 HDPE pipeline and associated fittings.

#### 1.02 QUALITY ASSURANCE

- A. Standard Specifications: Construction and testing shall comply with the Washington State Department of Transportation's 2018 Standard Specifications for Road, Bridge and Municipal Construction and the manufacturer's written documentation.
- B. Accuracy of Data: Drawings and specifications are for the assistance and guidance of the Contractor; exact distances and levels will be governed by existing ground conditions and locale of all utilities. Contractor shall be responsible for verifying location of existing utilities.

#### 1.03 SUBMITTALS

- A. Shop Drawings: Contractor to provide manufacturer's complete descriptive information for equipment items specified herein in accordance with Section 01300 – SUBMITTALS of these specifications. Shop drawings to be submitted according to the Contractor's shop drawing submittal schedule included in Section 01300 including manufacturer's complete descriptive information for the items specified herein. Information shall include materials of construction, standard literature, size and dimensions, installation instructions, joint fusion testing instructions, and hydrostatic pressure testing instructions, as required by the Engineer for review. Where standard information sheets are submitted, they shall be clearly marked to indicate features to be furnished under this Contract.

### PART 2 - PRODUCTS

#### 2.01 GENERAL

- A. Provide piping, materials and factory-fabricated piping products of sizes, types, pressure ratings, temperature ratings, and capacities as indicated. Where not indicated, provide proper selection as determined by Engineer to comply with installation requirements. Provide size and type matching of pipe for equipment connections; provide fittings and materials which match pipe materials. All HDPE piping, fittings and accessories shall be new and of good quality.

#### 2.02 PIPE AND FITTINGS

- A. High Density Polyethylene (HDPE) Pipe: All pipe sizes as shown on the Drawings and as specified herein are in reference to "nominal" diameter, unless otherwise indicated. All HDPE pipe and fittings shall be SDR 11DIPS. Pipe sizing is to be in accordance with ASTM F714 or ASTM D3035. The pipe shall be made from Premium High Density Polyethylene resin listed by the Plastic Pipe Institute as a P.E. 3408 Resin and shall be manufactured and

tested in accordance with AWWA C906. The pipe shall be in compliance with all of the ASTM D3350 material standards as identified below:

Cell classification	PE345464C
Density	>0.940-0.947
Melt Index	< 0.15
Flexural Modulus, 2% secant	110,000 to <160,000 psi
Tensile Strength at yield	3,000 to <3,500 psi
Slow Crack Growth Resistance - PENT	100 hours
Hydrostatic Strength Classification @ 23 deg. C	1,600 psi
Color and UV Stabilizer	Black with 2% min. carbon black

1. The pipe shall contain no recycled compound except that generated in the manufacturer's own plant from resin of the same specification. The polyethylene pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be uniform in color, opacity, density, and other physical properties.
  2. All HDPE pipe will be manufactured and delivered to the project site in 40' lengths such that fusion welding will be required.
  3. All HDPE pipe penetrations through concrete structures shall be watertight. A standard manhole adapter or a roughened exterior adapter with non-shrink grout shall be used unless otherwise approved by the Engineer.
  4. The standard HDPE fittings shall be standard commercial products manufactured by injection molding, extrusion and machining or shall be fabricated from PE pipe conforming to this specification. The fittings shall be fully pressure rated by the manufacturer to provide a working pressure equal to the pipe for 50 years service at 73.4°F with an included 2:1 safety factor. The fittings shall be manufactured from the same resin type, grade and cell classification as the pipe itself. The manufacture of the fittings shall be in accordance with good commercial practice to provide fittings homogeneous throughout and free from cracks, holes, foreign inclusions, voids or other injurious defects. The fittings shall be as uniform as commercially practicable in color, opacity, density and other physical properties. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe with which the fitting is to be used.
- B. Heat fusion fittings should be made from the same type of HDPE material as the pipe. Socket fittings shall comply with ASTM D2683. Butt Fusion fittings shall comply with ASTM D3261. Electrofusion Fittings shall comply with ASTM F1055.
- C. Marking Tape and Trace Wire Accessories:
1. Marking Tape: 3-inch wide non-detectable marking tape, as manufactured by Terra-Tape, or approved equal, shall be provided for all buried piping. Marking tape for sewer or drain piping shall be green in color. Marking tape for water piping shall be blue in color. All marking tape shall state the type of piping buried below.
  2. Trace wire material shall be provided for all buried piping. Trace wire shall be 12 Gauge, soft drawn, insulated, and shall be blue in color for water piping and green in color for sewer piping.
  3. Provide and install a magnesium anode to protect the toning wire every 1,000 feet.

- D. Locator boxes shall be valve boxes with embossed lids.
- E. Locator posts shall be Carsonite General Purpose Greenline Markers and shall be green in color.

### 2.03 CONNECTIONS TO DUCTILE IRON PIPE

- A. Connection to the existing 10-inch D.I. forcemain at the pump station shall be a 10-inch x 12-inch D.I. MJ reducer followed by Romac Alpha Coupler for 12-inch D.I. x 14-inch HDPE.
- B. Connection to the existing 12-inch plug valve near Station 126+35 shall be made by removing the existing reducing elbow and connecting the new 14-inch HDPE directly to the MJ end of the plug valve using a restrained PE bell adapter.
- C. Connection between the DIP for bridge crossing and HDPE pipe on either side shall be with a Romac Alpha coupler.

## PART 3 - EXECUTION

### 3.01 INSTALLATION OF HDPE PIPE AND FITTINGS

- A. All HDPE pipe shall be cut, fabricated, and installed in strict conformance with pipe manufacturer's recommendations. Joining, laying, and pulling of polyethylene pipe shall be accomplished by personnel experienced in working with polyethylene pipe. Seal end of line with a tight fitting plug when the pipe is not being laid and at the end of each work day.
- B. The pipe supplier shall certify, in writing, that an employee of the Contractor is qualified to join, lay, and pull the pipe. That employee shall be the only employee authorized to weld the pipe. Alternatively, a representative of the pipe manufacturer shall be onsite to oversee the pipe joining. Expenses for the manufacturer's onsite representative shall be paid for by the Contractor.
- C. All HDPE pipe shall be installed in strict accordance with the manufacturer's recommendations and/or specifications, using best commercial trade practices. Any special tools required for laying jointing, cutting, etc., shall be supplied by the Contractor. At all times during pipe laying operations, the Contractor shall keep the trench free of water either by pumping, bailing or drainage. Seal end of line with a tight fitting plug when the pipe is not being laid and at the end of each work day.
- D. Sections of HDPE pipe shall be joined into continuous lengths on the job site above ground. The joining method shall be the heat fusion method or electrofusion couplers and shall be performed in strict accordance with the pipe manufacturer's recommendations. The heat fusion equipment used in the joining procedures shall be capable of meeting all conditions recommended by the pipe manufacturer, and shall be 100% efficient offering a joint weld strength equal to or greater than the tensile strength of the pipe.
- E. HDPE pipe shall be joined in only two methods, butt fusion and through the use of electrofusion couplers. Butt-fused joints shall be properly aligned and shall have uniform roll-back beads resulting from the use of proper temperature and pressure. Joint surfaces shall be smooth. The fused joint shall be watertight and shall have tensile strength equal to or exceeding that of the pipe. All joints shall be subject to acceptance by the Engineer prior to insertion. All defective joints shall be cut out and replaced at no cost to the Owner. Any section of pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than 10% of the wall thickness, shall not be used and must be removed from the site.

At the Engineer's discretion, a defective area of pipe may be cut out and replaced with joints fused in accordance with the procedures stated above. In addition, any section of pipe having other defects such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the Engineer shall be discarded.

- F. A data logger device specifically manufactured for logging parameters of HDPE butt welding shall be employed for each weld to record conditions of the weld. At the end of each day that butt fusion occurs, an original paper printout of the record of each weld shall be submitted to the Engineer for review. The printout shall record the following parameters:

- Job Number
- Date and Time
- Joint Number
- Employee Name and/or Number
- Machine I.D.
- Machine Model
- Piston Area (Square Feet)
- Pipe Material/Manufacturer
- Pipe Size/SDR
- Drag Pressure
- Data Logger Probe Temperature
- External Probe Temperature
- Front End Plot (Time vs. Pressure)
- Summary Plot (Time vs. Pressure)

- G. Terminal sections of pipe that are joined within the insertion pit shall be connected with electrofusion couplers.
- H. Expansion and Contraction: The Contractor shall account for weather conditions when installing pipe and preparing pipe connections to fixed structures or dissimilar pipe materials. The cost for damage to new or existing facilities, additional piping, couplers, or contract time and labor due to expansion or contraction shall be borne by the Contractor.
- I. Trace Wire shall be installed on all sewer piping. The wire shall be taped to the lines at 15-foot intervals and shall be brought to the surface at all junctions and termini using methods approved by the Engineer.
1. Splices shall be made with a kit containing a "T"-shaped open cell centering device and a plastic bag of urethane and hardener, which is mixed at the time of installation or heat shrinkable insulating tubing. Heat shrinking insulating tubing shall consist of a mastic lined heavy wall polyolefin cable sleeve. The resin used with the "T"-shaped open cell centering device shall be a quick curing flexible compound with an approximate set-up time of 4 minutes at 72° F. Also, a prefilled, direct bury, safety wire connector can be used.
  2. A continuity test shall be performed on tracer wire in presence of Engineer or Resident Project Representative between locator boxes. This test shall be completed prior to paving or final surfacing for all piping buried within roadways.
- J. Marking tape shall be installed above all sewer and water piping during backfilling. Marking tape shall be installed between 12 to 24 inches below finish grade or in accordance with manufacturer's recommendations.

- K. Expansion and Contraction: The Contractor shall account for weather conditions when installing pipe and preparing pipe connections to fixed structures or dissimilar pipe materials. The cost for damage to new or existing facilities, additional piping, couplers, or contract time and labor due to expansion or contraction shall be borne by the Contractor.
- L. Laying HDPE Pipe on Curves: The pipe may be bent to allow for slight changes in direction. The minimum bending radius shall be 40 pipe diameters. Refer to the Drawings for control points (angles and elevations in profile view) for which conformance is required.
- M. For mechanical connection of HDPE pipe or fittings to dissimilar materials, all bolts shall be evenly torqued using a crossing pattern like that used to tighten lug nuts on a car wheel. Flanged joints shall be re-torqued after one hour or more has passed.

### 3.02 HYDROSTATIC TESTING

- A. Hydrostatic testing to 150% of the design operating pressure of the piping system shall be performed on all installed pipelines in accordance with the manufacturer's written instructions. For this project, the test pressure for HDPE pipe shall be 100 psi.

### 3.03 INSTALLATION OF LOCATOR BOXES AND LOCATOR POSTS

- A. Locator boxes shall be constructed at all major bends and at a minimum spacing of 500 feet along the length of all HDPE pipeline. All locator boxes, not in roadways, shall have companion locator posts installed adjacent to the locator boxes.

## PART 4 – MEASUREMENT & PAYMENT

- 4.01 All costs for supplying, installing and testing HDPE pipelines, fittings & appurtenances shall be incorporated into the appropriate unit price bid items for 14-inch SDR 11 HDPE Sewer Pipe with Fittings as found in the Bid Form. All fittings, bands, reducers, couplers, tracer wire and marking tape shall be considered pipe for payment purposes. This includes the HDPE pipe installed in the casing under Route 6. Also included in this bid item is the payment for connection to existing DIP at the project start and finish.
- 4.02 Payment for "Locator Box" shall be full pay to provide locator boxes, including the 5-inch PVC riser pipe material for each locator box assembly and the concrete collar. Measurement shall be on a per each basis for the number installed.
- 4.03 Payment for "Locator Post" shall be full pay to provide locator posts, including the concrete. Measurement shall be on a per each basis for the number installed.
- 4.04 Payment for Air Vac Valve assemblies including the demolition of existing assemblies shall be per each as shown in the Bid Form.
- 4.05 Payment for Isolation Valves shall be per each as shown in the Bid Form.

– END OF SECTION 15064 –



Division 16

VACANT

## **APPENDIX A**

### **WSDOT PERMIT**



**Washington State  
Department of Transportation**

**Southwest Region**  
11018 Northeast 51st Circle  
Vancouver, WA 98682-6686  
360-905-2000 / FAX: 360-905-2222  
TTY: 1-800-833-6388  
[www.wsdot.wa.gov](http://www.wsdot.wa.gov)

January 17, 2019

Patrick Wiltzius  
City of Chehalis Wastewater Department  
2007 N.E. Kresky Ave.  
Chehalis, WA

Re: SR 5, MP 77.91 – 77.94  
SR 6 interchange  
Permit No. U2106

Dear Mr. Wiltzius:

Enclosed is Permit No. U2106, which grants permission to construct, operate, and maintain a buried sewer line crossing of SR 6 within the right of way on SR 5 in Lewis County.

In accordance with the Special Provisions, the Utility shall notify Dennis Noyes, by phone at (360) 905-2298, by cell phone at (360) 904-3210, by email at [noyesd@wsdot.wa.gov](mailto:noyesd@wsdot.wa.gov), or in writing to the above address to set up a pre-construction meeting. ***The Utility may be charged for any work done in the Right of Way without prior notification.***

City of Chehalis Wastewater Department will also provide this office with the name and telephone number of their representative who shall be present at all times should work be performed by other than their own forces (General Provision No. 4).

City of Chehalis Wastewater Department shall give the contractor one copy of this permit and also inform the contractors/ subcontractors to carefully read and follow all General and Special Provisions as indicated within the approved permit. ***There will be a copy of this permit on the job site at all times. If the contractor cannot produce a copy, he/she will be asked to leave the right of way.***

***The work authorized by this permit will require inspection to be performed by the Department.***

Please contact Dennis Noyes at (360) 905-2298 if you have any questions regarding this matter.

Sincerely,

Rick Henderson  
SW Region Utilities Engineer

RDH:dn  
Enclosure



# Utility Accommodation Application

(aka Permit or Franchise)

<b>For Department Use Only</b>		
Permit/Franchise Number <u>U2106</u>		
Charge Code _____	Group _____	Expiration _____
Date Received: <u>1/02/19</u> Reviewed By: <u>DN</u>		
Southwest: 11018 NE 51st Circle, Vancouver, WA 98682 (C/O Dennis Noyes SW Region Utilities Office)		

Applicant City of Chehalis Wastewater department	Utility Contact Name Patrick J. Wiltzius
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Email pwiltzius@ci.chehalis.wa.us	Phone 360-740-7536 Ext. - 0
--------------------------------------	--------------------------------

**Location** (www.snagmp.com)

SR 5 I (@ SR 6)	Milepost Begin 77.91/51.21 End 77.94/51.22	County Lewis
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**Installation**

<b>Please Check One</b>		<b>Please Check All That Apply</b>	
<input type="checkbox"/> Power	<input checked="" type="checkbox"/> Sewer	<input checked="" type="checkbox"/> Buried	
<input type="checkbox"/> Water	<input type="checkbox"/> Telecommunication	<input type="checkbox"/> Aerial	
<input type="checkbox"/> Gas		<input type="checkbox"/> Surface Feature (Pole, ped, vault)	
<input type="checkbox"/> Other _____		<input type="checkbox"/> Attached to a bridge/structure	
<b>Describe Installation Type</b> (Briefly explain)			
18" steel casing w/14" HDPE sewer force main crossing under State Route 6 within the access control limits of SR 5 (Interstate 5)			

**Billing Information**

Contact Name Patrick J. Wiltzius		
Federal Tax ID 91-6001235	Applicant Reference Work Order (optional)	
Phone 360-740-7536	Email pwiltzius@ci.chehalis.wa.us	
Street 2007 N.E. Kresky Avenue		
City Chehalis	State WA	Zip + 4 98532

**Authorized Signatory**

Signature 	Printed Name & Title/Owner Patrick J. Wiltzius	Date 1/3/19
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The Authorized Signatory indicates the General Provisions, as provided, have been read and are agreed to by the Utility and the Utility understands that additional provisions may apply. The WSDOT has the authority to invoice the Utility for all work associated with the review, processing and inspection for the proposed installation. The applicant promises to pay any additional costs, in addition to the fees, incurred by WSDOT on the behalf of the applicant.

In accepting this Franchise Amendment No. N/A to N/A, Utility agrees that the General Provisions to the original Franchise shall be replaced in their entirety with the General Provisions as included with this Amendment. All other terms and conditions of the original franchise shall remain in full force and effect.

**FOR DEPARTMENT USE ONLY, DO NOT WRITE BELOW THIS LINE**

<b>Application Type</b> Permit	<b>Category, Impact to R/W Dropdown</b> Category 1 - High Impact	<b>Fees</b> \$500	<b>Access Control</b> Full
Checks or money orders are to be made payable to "Washington State Department of Transportation".			
* The fees are paid to cover the basic administrative expenses incident to the processing of this application in accordance with WAC 468-34 and RCW 47.44 and amendments thereto.			
Department Approval:	Printed Name and Title Rick Henderson, SW Region Utilities Engineer		Date 1/17/19



Permit Number : U2106

**Utility:** City of Chehalis Wastewater Department

The above-noted Permit, Franchise or Franchise Amendment is subject to the terms and conditions stated in the General Provisions, as well as all Exhibits.

### **Exhibits**

Exhibit A - Special Provisions for Permits and Franchises - Sheets 1 - 4 of 4

Exhibit B - Utility Facility Description (UFD) - Sheet 1 of 1

Exhibit C - Plan Sheets/Maps - Sheet 1 & 2 of 2

Exhibit D - Traffic Control Plan - See Special provision 50 of this permit.

Exhibit E -

Exhibit F -

Exhibit G -

Exhibit H -

### **Notes:**

The fillable spaces after the Exhibits is to call out the number of pages, such as "pages 1 - 4," or the Exhibit's name.

The additional fillable space just above is for additional Exhibits beyond Exhibit H.

General Provisions are considered part of the Accommodation Application and are not assigned as an Exhibit.

# Special Provisions for Utility Accommodation Application

Permit U2106

**Applicable provisions are denoted by (X)**

- 1. Prior to beginning the Work, a pre-construction conference shall be held at which WSDOT, Utility's engineer, contractor, and inspector (as applicable) shall be present. The Utility shall give a minimum **five (5)** working days (Monday through Friday excluding any holidays) notice to WSDOT's representative(s) (prior to the pre-construction conference). Please contact Dennis Noyes to set this meeting up.
- 2. No Work provided for herein shall be performed until the Utility is authorized by the Washington State Department of Transportation (WSDOT) representative(s):

WSDOT Representatives		
Utilities Project Delivery Engineer/ Inspector:		Maintenance Area Representative:
Dennis Noyes SW Region Utilities Phone: 360-905-2298 Cell: 360-904-3210		

The Utility shall notify in writing the identified WSDOT representative(s) at least **three (3)** working days (Monday through Friday excluding any holidays) in advance of commencing Work on state-owned highway right of way.

- 3. Work within the state-owned right of way shall be restricted to daylight hours. No work shall be allowed Saturday, Sunday, or holidays. In addition, the Utility shall be off the highway by noon the day prior to a holiday unless authorized by WSDOT. If a holiday falls on a Saturday, the preceding Friday is counted as the holiday, and the Utility shall be off the highway by noon Thursday. When the Holiday falls on a Monday, the Utility shall be off the right of way at noon on the preceding Friday. Nothing in this section shall limit the authority of WSDOT to further restrict work within state-owned highway right of way at WSDOT's discretion. The hours of closure are subject to change if unanticipated circumstances occur. Any lane closures must be submitted for approval in advance of use.
- 4. During non-working hours equipment and materials shall not be located or stored within the work zone clear zone (WZCZ) area. Minimum WZCZ distances will be measured from the edge of the traveled way (the portion of the roadway intended for the movement of vehicles, exclusive of shoulders and lanes for parking, turning, and storage for turning) and will be determined as follows:

Posted Speed	Distance From Traveled Way (ft)
35 mph or less	10
40 mph	15
45 to 55 mph	20
60 mph or greater	30

**Minimum Work Zone Clear Zone Distance**

- 5. The Utility agrees that, in the event any construction and/or maintenance of the highway facility becomes necessary within the proximity of the utility installation during the time the Utility will be working within the highway right of way, it is expressly understood that, upon request from WSDOT's representative, the Utility will promptly identify and locate by suitable field markings any and all of its underground facilities so that WSDOT or its contractor can be fully apprised at all times of their precise locations.
- 6. Construction of this facility will not be permitted from the shoulders or through the traffic lanes and/or ramps of SR 5. All construction access will be from adjacent roadways.
- 7. All vehicles and equipment that are not essential for the Work shall not be parked on the shoulders or thru-traffic lanes and/or ramps of SR 5 and SR 6.
- 8. In the event of a lane closure the contractor **SHALL** call the TMC at 360-759-1300 to let them know the location, start and finish time of the lane closure.
- 9. The responsibility of the Utility for proper performance, safe conduct, and adequate policing and supervision of the Work shall not be lessened or otherwise affected by WSDOT's approval of plans, specifications, or work, or by WSDOT representative's presence at the work site.

- 10. The Utility acknowledges that SR \_\_\_\_\_ is scheduled for future construction. All work shall be coordinated with the Project Engineer's Office responsible for this project and all work shall be completed no later than \_\_\_\_\_. Relocation and/or adjustment of this facility at the time of construction will be at the expense of the Utility.
- 11. The Utility shall notify the WSDOT Representative upon completion of project for final inspection / review.

**BOND AND INSURANCE COVERAGE**

- 12. The Utility has provided bond coverage for the Work under this Permit or Franchise by furnishing a blanket surety bond held by WSDOT at the WSDOT Headquarters Utilities Unit in Olympia, WA.
- 13. The Utility shall provide a surety bond to WSDOT in the amount of \$ \_\_\_\_\_, written by a surety company authorized to do business in the State of Washington, or shall set up a WSDOT-approved escrow account prior to the start of construction to cover the Work under this Permit or Franchise. The surety bond or escrow account shall remain in force for a period of one (1) year after the written notice of completion of the Work (as provided in general provision 11), except that when the Work impacts the paved highway (open cuts, bores or damage to the highway surface), the Utility shall be required to maintain the surety bond or escrow account for a period of two (2) years after the notice of completion.
- 14. When the Utility chooses to perform the Work with other than its own forces and requires its contractor to provide a surety bond to WSDOT before performing any Work to ensure compliance with all of the terms and conditions of this Permit or Franchise, the bond shall be in the amount of \$ \_\_\_\_\_, written by a surety company authorized to do business in the State of Washington and shall remain in force until all Work under this Permit or Franchise has been completed, and the Utility's contractor has restored any affected WSDOT property and right of way to the satisfaction of WSDOT.
- 15. The Utility shall provide proof of insurance coverage prior to performing any Work within state-owned highway right of way, as follows:
  - (a) Commercial General Liability covering the risks of bodily injury (including death), property damage, and personal injury, including coverage for contractual liability, with a limit of not less than \$1 million per occurrence/\$2 million general aggregate;
  - (b) Business Automobile Liability (owned, hired, or non-owned) covering the risks of bodily injury (including death) and property damage, including coverage for contractual liability, with a limit of not less than \$1 million per accident;
  - (c) Employers Liability covering the risks of Utility's employees' bodily injury by accident or disease, with limits of not less than \$1 million per accident for bodily injury by accident and \$1 million per employee for bodily injury by disease.

Such insurance policies or related certificates of insurance shall name the Washington State Department of Transportation as an additional insured on all general liability, automobile liability, employers' liability, and excess policies. A forty-five (45) calendar day written notice shall be given to WSDOT prior to termination of or any material change to the policy(ies) as such relate (s) to this Permit or Franchise.

- 16. If the Utility is a city or county, it may choose to provide verification of insurance coverage to WSDOT by providing proof of its coverage through "Washington Cities Insurance Authority" or the "Washington Counties Risk Pool", or verify that the city or county is self-insured, to comply with the insurance terms and conditions of this Permit or Franchise.

**UNDERGROUND FACILITIES**

- 17. All facilities in joint use conduits shall relocate together at such time as the conduit owner moves their conduit or WSDOT deems relocation necessary. The conduit owner is responsible to remove the conduit or conduits in their entirety. (The conduit owner is the Permit or Franchise holder under which the conduits were installed.)
- 18. A Utility that is installing conduit for future use must apply for a new Permit or Franchise amendment when they are ready to occupy the empty conduit. If a third-party Utility is to occupy the empty conduit the conduit owner must instruct them to apply for a Permit or Franchise with WSDOT before occupying the conduit.
- 19. The Utility shall completely remove all Deactivated Facilities (as defined in Washington State Department of Transportation Utilities Manual M 22-87).
- 20. Deactivated facilities left within the state owned right of way shall remain owned by the Utility, who shall continue to bear all responsibility for any future costs incurred for removal of the Deactivated facilities if required by WSDOT in its sole discretion.
- 21. For underground facilities, markers shall be placed at each right of way line at one end of a normal crossing, at both ends of an oblique crossing, and at all changes in offset distance from right of way line or centerline of the highway and placed every 500 feet for longitudinal installations. Marker information as a minimum shall include owner name, pipeline or cable identification and station, and telephone number or other means to contact a local office. Markers must meet an industry standard that will not create a safety hazard, and all markers shall be placed and maintained so as to minimize interference with WSDOT maintenance operations. It is the Utility's responsibility to maintain its markers. Maintenance of markers includes but is not limited to update of Utility's name (if changed) or Utility's successors' or assigns' contact information, and replacement of damaged or missing markers.

- 22. All underground facilities shall include a component by which the utility can be located with conventional methods. In addition, for all installations in trenches, the Utility shall install detector tape approximately 12 inches above the underground facility. The tape shall conform to the standards of the American Public Works Association Uniform Color Code.
- 23. Utility facilities or casings for facilities crossing under highways surfaced with oil, asphalt concrete pavement, or cement concrete pavement shall be by trenchless construction, using the appropriate equipment to jack, bore, or auger the facility through the highway prism with a minimum depth of 5 feet along any point from the top of facility to the lowest point of the finished highway grade, at a minimum of 3.5 feet depth from bottom of ditch/toe of slope to top of facility or casing.
- 24. If PVC or HDPE casings are utilized for crossings, they shall be equivalent to or greater than Schedule 80.
- 25. Casing requirements (WAC 468-34-210) for utilities are specified individually or in whole on the attached exhibits. Any variances to these casing requirements shall be justified, in writing, and approved by WSDOT.
- 26. Pipeline installation shall meet the provisions of chapter 480-93 WAC, Gas Companies-Safety, and amendments thereto.
- 27. Open trenching (cutting a trench for direct placement of a utility that does not include cutting an existing paved highway surface) will only be allowed at the locations identified on the plan sheets and/or listed on Exhibit(s) \_\_\_\_\_, with restoration to be performed as noted on the attached "Open Trench Detail," Exhibit \_\_\_\_\_.
- 28. Open cuts (cutting a trench for direct placement of a utility that does include cutting the existing paved highway surface) of the highway are a variance to WSDOT policy, requiring justification (Open Cut Variance Request) and approval by WSDOT prior to the Work beginning. Open cuts are only allowed at approved locations identified on the plan sheets and/or listed on Exhibit(s) \_\_\_\_\_, with restoration to be performed as noted on the attached "Open Cut Detail," Exhibit \_\_\_\_\_.
- 29. If determined necessary by the WSDOT representative, any or all of the excavated material shall be removed and replaced with suitable material as specified by WSDOT. It is the Utility's responsibility to obtain any necessary permits or comply with applicable requirements to haul or dispose of any excavated material.
- 30. If determined by the Washington State Department of Labor and Industries and/or the WSDOT representative that extra Shoring (beyond that specified in Section 7-08.3(1)B of WSDOT's Standard Specifications for Road, Bridge, and Municipal Construction) is necessary for the safety of the workers or the protection of the highway pavement, the trenching or excavation work shall be stopped and no Work in the trench or excavation area will be allowed until satisfactory modifications are made.
- 31. All trenches, boring or jacking pits, etc., shall be backfilled as soon as possible. If left open during nonworking hours, they shall be protected to the satisfaction of WSDOT. Methods of protection shall be submitted a minimum of **fourteen** ( 14 ) calendar days in advance for approval by WSDOT prior to use.
- 32. During working hours, all open trenches shall be marked by warning signs, barricades, and flashing beacons. If necessary, flagmen shall be employed for the purpose of protecting the traveling public.
- 33. The highway shoulders, where disturbed, shall be resurfaced in kind with crushed surfacing top course at **12**-inch minimum compacted depth, or as directed by WSDOT's representative. The surface of the finished shoulder shall slope down from the edge of pavement at the rate of 5% unless otherwise directed. Any restored shoulders shall not have any sections less than 2 feet wide.
- 34. The Utility shall use hot mix asphalt for all roadway pavement restoration. WSDOT will not allow the use of cold mix for any roadway patching longer than 24 hours.
- 35. Utility facilities installed longitudinally within Zone A, foreslope and backslope, shall have a minimum cover of 42 inches except in consolidated rock where the minimum cover shall be 24 inches with a concrete casement of four inches or a steel plate above the facility.
- 36. Utility facilities installed longitudinally within Zone B, outside of Zone A, shall have a minimum cover of 42 inches except in consolidated rock where it is necessary to saw or blast the rock to install the facility, the minimum cover may be 24 inches.
- 37. All facilities constructed in Zone A shall use conduit.
- 38. Zone A requirements also apply from Milepost \_\_\_\_\_ to Milepost \_\_\_\_\_.

## **AERIAL/ABOVEGROUND FACILITIES**

- 39. All facilities on joint use poles shall be relocated at the time the pole owner either moves or removes their poles. (The pole owner is the Permit or Franchise holder under which the poles were installed and is responsible for ensuring the removal of the pole.)
- 40. Neutral conductors associated with circuits of 0 to 22 Kilovolts, where the neutral is considered to be 0-750 Volts, shall have a minimum clearance of 24 feet Vertical Clearance as indicated in WAC 468-34-290, provided the facility is grounded at each pole at each end of the crossing.
- 41. The Utility agrees to underground the aboveground facilities covered by this Franchise in Scenic Classes "A," and "B," as defined on the attached Exhibit(s) \_\_\_\_\_, either at the time of major construction of the facility, for that portion of facility to be reconstructed, or prior to expiration of this Franchise.
- 42. The Utility agrees to underground the aboveground facilities covered by this Franchise in Scenic Classes "A," "AX," "B," and/or "BX," as defined on the attached Exhibit(s) \_\_\_\_\_, at the time the pole owner undergrounds its facility. The existing aboveground facility may remain or be relocated as aboveground in Scenic Classes "AX" or "BX", if acceptable to WSDOT.



- 43. The Utility agrees to underground or relocate the existing aboveground facilities covered by this Franchise in Scenic Classes "A," "AX," "B," and/or "BX," as defined on the attached Exhibit(s) \_\_\_\_\_, to a location acceptable to WSDOT either at the time of reconstruction, for the portion of line to be reconstructed, or prior to the expiration of this Franchise. The existing aboveground facility may remain or be relocated as aboveground in Scenic Classes "AX" or "BX", if acceptable to WSDOT.
- 44. The Utility shall not place any new poles within the right-of-way.
- 45. The term "to maintain" as noted in General Provision #18 includes but is not limited to keeping the area around any and all utility owned components (i.e. guy anchors and guy wires) mowed no less than four feet away to allow State maintenance crews visibility of any and all utility owned appurtenances within the WSDOT right of way.

## MAINTENANCE

- 46. No routine maintenance of the facility authorized by this Permit or Franchise will be allowed within the limited access area.
- 47. Maintenance of this facility will not be permitted from the shoulders, thru-traffic lanes, and/or ramps of \_\_\_\_\_, and all service to this facility will be accessed from \_\_\_\_\_.
- 48. The Utility will notify the WSDOT Representative(s), listed in Special Provision 2, three (3) working days (Monday through Friday excluding any holidays) prior to any scheduled maintenance work to be performed in the state-owned highway right of way.

## ADDITIONAL PROVISIONS

- 49. Not used
- 50. The Utility shall provide a traffic control plan for approval to the WSDOT SW Region utilities office for approval ten (10) days prior to the pre-construction meeting with the contractor. The traffic control plan shall be approved by a TCS of the State of WA.
- 51. When requested, the Utility will provide to the Region Utilities Engineer copies of any federal, state and local permits referenced in Section 23 of the General Provisions.
- 52. The Utility shall contact WSDOT immediately if any significant archeological artifacts are uncovered during any type of excavation.
- 53. Should the Utility choose to perform the Work outlined herein with other than its own forces, the Utility shall notify WSDOT's representative, in writing or by fax, as to the name, address, and telephone number of the contractor by filling out the Contractor information on the Construction Notification Form, exhibit \_\_\_\_\_.
- 54. **CALL BEFORE YOU DIG:** Utility Notification Center, **811**. It is the Utility's responsibility to contact the one call center pursuant to RCW 19.122. Any locations or dimensions provided for existing facilities on plan sheets provided by WSDOT are in accordance with available information obtained without uncovering, measuring, or other verification.
- 55. Clean up and application of tacking agent or hydro seeding in accordance with manufacturers recommended requirements shall occur as soon as practical following the installation. A seed mix is available for use on this project. County specific Weed Control Plans shall take precedence over WSDOT's provided seed mixes, if they are available. The recommended seeding application window is Sept. 15 – Nov. 15. The applicant shall be held responsible for re-vegetation of the disturbed areas to pre-construction conditions. In areas where adjacent owners have maintained the highway rights of way, as yards or similar, re-vegetation shall be completed in a manner that produces pre-construction conditions.
- 56. The Utility shall be responsible for securing the required Department of Natural Resources (DNR) easement(s) and shall provide a copy of the easement(s) to the WSDOT Regional Utilities Engineer prior to installing any utility facilities across DNR land or waterways.



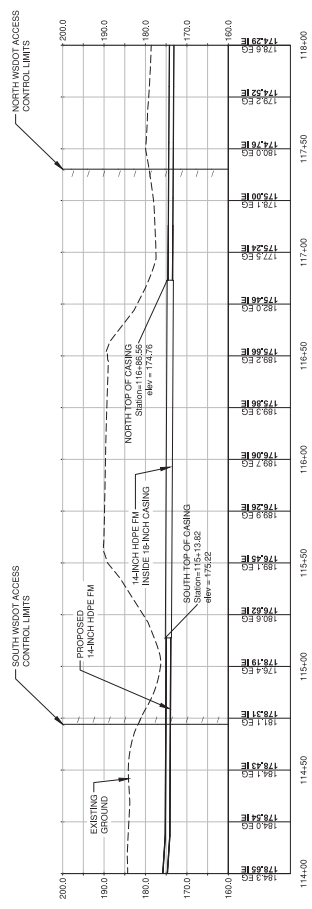
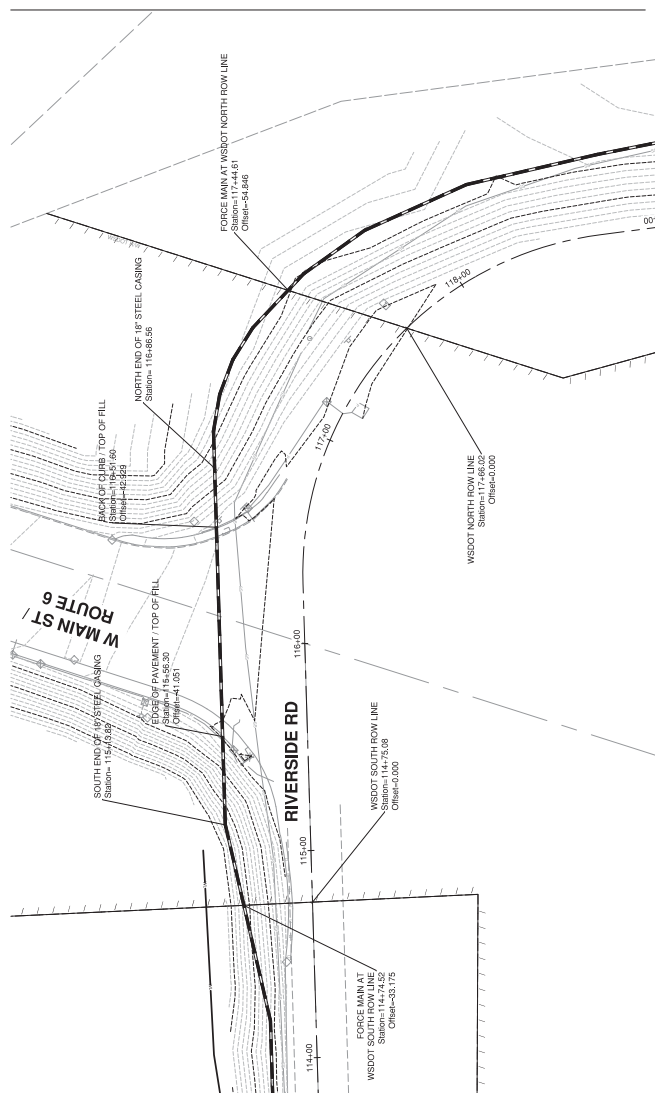
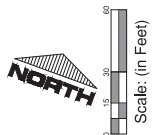
# Utility Facility Description

All Grayed Out Areas are For Department Use Only											
<b>State Route Number: 5 (@ SR 6)</b>		<b>Accommodation Number: U2106</b>			<b>T, R, Sec:</b>						
<b>Begin Mile Post: 77.91/51.21</b>		<b>End Mile Post: 77.94/51.22</b>			<b>Access Control: 5</b>		<b>Scenic Class:</b>				
<p><b>Facility Description</b> – Provide a summary of the proposed work:            310' – 14" HDPE sewer force main crossing under State Route 6 within the SR 5 (Interstate) access control limits and is approximately 43.5 feet west of the centerline alignment of Riverside Rd. This new line direction is approximately parallel with Riverside RD running south to north. There will be a 173' – 18" steel casing bored from SR 6 south toe to north toe. The approximate depth is 15-14' feet from road surface elevation to top of casing.</p>											
Additional Notes:											
Begin Mile Post	End Mile Post	Left, Right or Xing	Offset Distances (feet)			Facility Description	Right of Way Width (feet)		Scenic Class	Access Control	Remarks and Installation Comments
			From Center Line	From Edge of Traveled Way (Fogline)	Depth or Height		Left	Right			
77.91/51.21	77.94/51.22	Xing SR 6	N/A	N/A	14	173' 18" Steel Casing with 310' 14" HDPE sewer force main crossing	149	160			1) Indicate where item enters/leave R/W. 2) Include pertinent topography info (turnouts, Rd. approaches, intersections, culvert, guardrail, xing method, split grade/under/overpass, etc.) -Enters at M 23+41 (L 129.5') & Exits at M 24+11 (R 160.0') -Will be bored under SR 6 and provided 36" of min. cover at bottom of fill slope. Will include approximately 14' of cover at edge of pavement. -Outside bore area it will be installed open trench.



Civil	City of Chehalis Riverside Foremain	STA 114+00 to STA 118+00
Horizontal Scale: 1"=50' Vertical Scale: 1"=10' Datum: MGS83 NAVD83 Survey Book: --- Project Phase: --- Project Mileposts: --- Revision Date: <b>01/03/2019</b>		

**GIBBS & OLSON**  
 CONSULTING ENGINEERS  
 PROJECT MANAGER: MEET  
 DESIGNED BY: SB  
 CAD BY: KAR  
 CHECKED BY: SB  
 APPROVED BY: MEEM  
 PROJECT NUMBER:  
**0155.1077**  
 DRAWING NUMBER:  
**WSDOT1**  
 SHEET NUMBER:  
**1** of **1**



Permit U2106  
 Exhibit "C"  
 Sheet 2 of 2

DRAWING TITLE: WSDOT CROSS SECTION FOR THE RIVERSIDE BRIDGE CROSSING OVER W MAIN ST / ROUTE 6. PROJECT NUMBER: 0155.1077. DATE: 01/03/2019. DRAWN BY: KAR. CHECKED BY: SB. APPROVED BY: MEEM. SCALE: 1"=50'. SHEET NUMBER: 1 OF 1. PROJECT MANAGER: MEET. GIBBS & OLSON CONSULTING ENGINEERS.



## **General Provisions for the Utility Accommodation Application**

This Permit or Franchise is issued pursuant to the terms of RCW 47.32, RCW 47.44, and WAC 468-34, and amendments thereto. Renewal of a Franchise must be by application prior to expiration of this Franchise as required by RCW 47.44.020(3).

1. A copy of this Permit or Franchise must be on the job site, protected from the elements, at all times during any construction authorized by this Permit or Franchise.
2. The Utility agrees to pay the reasonable costs for investigating, handling, and granting the Permit or Franchise, including, but not limited to basic overhead charges and for providing an inspector during construction and/or maintenance of the Utility's facilities. Further, the Utility agrees that it shall be responsible for and pay WSDOT's expended direct and indirect costs associated with applicable provisions of the Permit or Franchise. WSDOT will assign a reimbursable account to the Utility as a means of invoicing the Utility for the costs associated with this Permit or Franchise.
  - (a) WSDOT will assign a reimbursable account to the Utility as a means of invoicing the Utility for the costs associated with this Permit or Franchise.
  - (b) WSDOT will invoice the Utility and the Utility agrees to pay WSDOT within thirty (30) calendar days of receipt of an invoice.
3. Upon approval of this Permit or Franchise, the Utility shall diligently proceed with the Work and comply with all General and Special provisions herein. Construction of facilities proposed under this Permit or Franchise shall begin within one (1) year and must be completed within three (3) years from date of WSDOT approval. "Work" under this Permit or Franchise shall mean construction, operation, and maintenance of the Utility's facilities as authorized herein.
4. The Utility shall notify WSDOT representative in special provision 1 of the name, address, and telephone number of its contractor when Work outlined herein is going to be performed with other than its own forces. When the Utility uses a contractor, an authorized representative of the Utility shall be present at all times unless otherwise agreed to by WSDOT representative. A list of authorized representatives shall be submitted prior to the construction start date. (Authorized representatives are defined as persons having signatory authority for the Utility and or the authority to control the Work as needed for any issues identified by WSDOT.)
5. The Utility agrees to schedule and perform its Work in such a manner as not to delay WSDOT's contractor's work when WSDOT has a contractor performing work in the vicinity of the Utility's Work.
6. All contact between WSDOT and the Utility's contractor shall be through the Utility representative. Where the Utility chooses to perform the Work with its own forces, it may elect to appoint one of its own employees engaged in the Work as its representative. The Utility, at its own expense, shall adequately police and supervise all Work performed by itself, its contractor, subcontractor, agent, and/or others, so as not to endanger or injure any person or property.
7. The Utility shall contact the identified WSDOT representative two (2) weeks prior to conducting Work, to determine the location of survey control monuments within the area in which the Utility will be working. In the event any monument or right of way marker will be altered, damaged, or destroyed by the Utility, WSDOT, prior to Utility Work, will reference or reset the monument or right of way marker. During the Work, upon discovery of a monument or right of way marker, the Utility shall cease Work in that area and immediately notify WSDOT of the discovery. WSDOT will coordinate with the Utility to ensure that the monument or right of way marker is recorded or replaced. The Utility agrees to pay all WSDOT costs to perform monument or right of way marker work, as provided in this provision, in accordance with general provision 2.
8. In the event any milepost, fence, or guardrail is located within the limits of the Utility's Work and will be disturbed during Utility Work, the Utility agrees to carefully remove these highway facilities prior to Utility Work and reset or replace these highway facilities after the Utility Work, to WSDOT's sole satisfaction and at the sole cost of the Utility. The Utility agrees that all highway signs and traffic control devices shall not be removed or disturbed during Utility Work.

9. The Utility agrees that all Work shall be done to the satisfaction of WSDOT. All material and workmanship shall conform to WSDOT's Standard Specifications for Road, Bridge, and Municipal Construction, current edition, and amendments thereto, and shall be subject to WSDOT inspection. All WSDOT acceptance and inspections are solely for the benefit of WSDOT and not for the benefit of the Utility, the Utility's contractor (if any), or any third party. The Utility agrees that it shall pay all WSDOT inspection costs in accordance with general provision 2.
10. The Utility shall comply with the Manual on Uniform Traffic Control Devices for Streets and Highways (Federal Highway Administration) and the State of Washington modifications thereto (chapter 468-95 WAC) while it performs the Work. If WSDOT requires, the Utility shall submit a signing and traffic control plan to WSDOT's representative for approval prior to construction or maintenance Work. No lane closures shall be allowed except as approved by WSDOT's representative. Approvals may cause revision of Special Provisions of this Permit or Franchise, including hours of operation.
11. This Permit or Franchise may not be amended or modified without WSDOT's prior review and approval. Upon completion of the Work, the Utility shall provide a written notice of completion of the Work to WSDOT's representative within ten (10) calendar days of the completion of the Work so that WSDOT may make its final inspection. Further, the Utility shall provide the Region Utilities Engineer with detailed as-built drawings within ninety (90) calendar days of Work completion, if the originally approved Permit or Franchise construction plans have been revised during the course of construction.
12. If WSDOT, at its sole discretion, shall determine that any or all of the Utility's facilities must be modified, removed from, or relocated within the state-owned highway right of way as necessary, incidental, or convenient for the construction, alteration, improvement, repair, relocation, or maintenance of the state highway, or for the safety of the traveling public, the Utility, its successors and assigns, shall, at its sole cost and expense, upon written notice by WSDOT, modify, relocate, or remove any or all of its facilities within or from the state-owned highway right of way as required by WSDOT. The Utility shall perform in a timely manner all facility modifications, relocations, and/or removals as WSDOT directs, to avoid highway project impacts or delays and in such manner as will cause the least disruption of traffic or interference with WSDOT's continued operation and/or maintenance of the highway.
13. Should the Utility fail or refuse to comply with WSDOT's direction, pursuant to general provision 12, to modify, remove, or relocate any Utility facility, WSDOT may undertake and perform any modification, removal, or relocation of the Utility facility that WSDOT, in its sole discretion, deems necessary. The Utility agrees to pay WSDOT's expended costs and expenses for performing the work, in accordance with general provision 2.
14. If WSDOT determines in good faith that emergency maintenance work on the Utility's facility is needed to (a) protect any aspect of the state highway right of way, or (b) secure the safety of the traveling public due to a failure of the Utility's facility, WSDOT may perform the necessary work without the Utility's prior approval, and the Utility agrees to pay WSDOT's expended costs and expenses for performing the work in accordance with general provision 2. WSDOT will notify the Utility of the emergency work performed as soon as practicable.
15. WSDOT may amend, revoke, or cancel this Permit or Franchise at any time by giving written notice to the Utility. If the Permit or Franchise is amended, the Utility will have thirty (30) calendar days to modify the facility as the Permit or Franchise amendment(s) require. If the facility modifications cannot be made within thirty (30) calendar days, the Utility shall respond to WSDOT, in writing, as to when the facility modifications can be made. If the Permit or Franchise is revoked or canceled, the Utility shall immediately remove all facilities from the right of way. Any facilities remaining upon the right of way thirty (30) calendar days after written notice of Permit or Franchise revocation or cancellation may be removed by WSDOT at the expense of the Utility. The Utility agrees to pay WSDOT's expended costs and expenses for performing the work in accordance with general provision 2.
16. Should the Utility breach any of the conditions and requirements of this Permit or Franchise, or should the Utility fail to proceed with due diligence and in good faith with the Work as authorized by this Permit or Franchise, WSDOT may cancel or revoke the Permit or Franchise upon thirty (30) calendar days written notice to the Utility.
17. The Utility shall not excavate or place any obstacle within the state-owned highway right of way in such a manner as to interfere with WSDOT's construction, operation, and maintenance of the state-owned highway right of way or the public's travel thereon without first receiving WSDOT's written authorization.
18. The Utility agrees to maintain, at its sole expense, its facilities authorized by this Permit or Franchise in a condition satisfactory to WSDOT.
19. The Utility agrees that it is financially responsible to WSDOT for all necessary expenses incurred in inspecting the construction and restoring the highway pavement or related transportation equipment or facilities to a permanent condition suitable for travel as determined by WSDOT, as well as financially responsible to WSDOT for trenching

work not completed and for compensating WSDOT for the loss of useful pavement life caused by trenching as required by RCW 47.44.020.

20. Upon completion of all Work, the Utility shall immediately remove all rubbish and debris from the state-owned highway right of way, leaving the state-owned highway right of way in a neat, presentable, and safe condition to WSDOT's satisfaction. Any Work-related rubbish and debris clean up, or any necessary slope treatment to restore and/or protect the state-owned right of way, not done within one (1) week of Work completion, unless otherwise negotiated, will be done by WSDOT at the expense of the Utility. The Utility agrees to pay WSDOT's expended costs and expenses for performing the work in accordance with general provision 2.
21. For the benefit and safety of the traveling public, the Utility voluntarily agrees to permit WSDOT to attach and maintain upon any Utility facility under this Permit or Franchise any required traffic control devices, such as traffic signals, luminaires, and overhead suspended signs, when the use of such devices or attachments does not interfere with the use for which the facility was constructed. WSDOT shall bear the cost of attachment and maintenance of such traffic control devices, including the expended cost of any extra Utility infrastructure construction beyond what is necessary for the Utility's facility; such extra cost to be jointly determined by WSDOT and the Utility. WSDOT shall not share in the Utility facilities' cost of installation, operation, or maintenance of any of the facilities installed under this Permit or Franchise.
22. The Utility shall comply with WSDOT's Temporary Erosion and Sediment Control Manual (M 3103.01) and any revisions thereto, for erosion control and/or to mitigate any erosion occurring as a result of the Work. If the Utility Work performed under this Permit alters, modifies, changes, or interferes in any way with the drainage of the state-owned highway right of way, the Utility shall, at its own expense, make all corrections and/or provisions WSDOT requires to fix and restore the state-owned right of way drainage to its original condition and function prior to the Utility's Work. Any flows from the Utility shall not exceed the flows discharging to WSDOT drainage prior to the new work. Any flows discharged to state-owned highway right of way shall meet the requirements for quantity and water quality according to the current version Highway Runoff Manual (M 31-16). Should the Utility not make the required drainage restoration, WSDOT reserves the right to make such changes as necessary to restore the original drainage function at the sole cost of the Utility, and the Utility agrees to pay WSDOT's expended costs and expenses for performing the work in accordance with Stormwater Discharge General Provision 2.
23. The Utility shall be responsible for securing all necessary permits, including but not limited to, federal, state, and local regulatory, tribal, environmental, archeological, and railroad permits and permits from the Washington State Department of Ecology, the Washington State Department of Fish and Wildlife, and/ or the U.S. Army Corps of Engineers prior to beginning the Work authorized by this Permit or Franchise. The Utility shall be responsible for mitigation measures where wetlands have been disturbed and agrees that it is responsible for any fines imposed for noncompliance with the permit(s) conditions or for failure to obtain the required permits. In addition, the Utility, on behalf of itself and its contractors, officers, officials, employees, and agents, agrees to indemnify, hold harmless, and defend, at its sole cost and expense, WSDOT and its officers, officials, employees, and agents from any and all fines, costs, claims, judgments, and/or awards of damages (to regulatory agencies, persons, and/or property), arising out of, or in any way resulting from, the Utility's failure to (1) obtain any required permit for the Utility Work or (2) comply with permit conditions. Further, the Utility shall be responsible for compliance with all federal, state, and local laws, regulations.
24. For any of the Utility's Work that requires permit coverage under the "CONSTRUCTION STORMWATER GENERAL PERMIT – National Pollutant Discharge Elimination System and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction Activity" (Construction Stormwater General Permit), the Utility shall obtain said permit coverage and shall comply with all requirements of the Construction Stormwater General Permit. Upon WSDOT's request, the Utility shall provide a copy of the Construction Stormwater General Permit. In addition, the Utility, on behalf of itself and its contractors, officers, officials, employees, and agents, agrees to indemnify, hold harmless, and defend, at its sole cost and expense, WSDOT and its officers, officials, employees, and agents from any and all fines, costs, claims, judgments, and/or awards of damages (to regulatory agencies, persons, and/or property), arising out of, or in any way resulting from, the Utility's failure to (1) obtain coverage under the Construction Stormwater General Permit for Utility Work or (2) comply with the Construction Stormwater General Permit requirements.

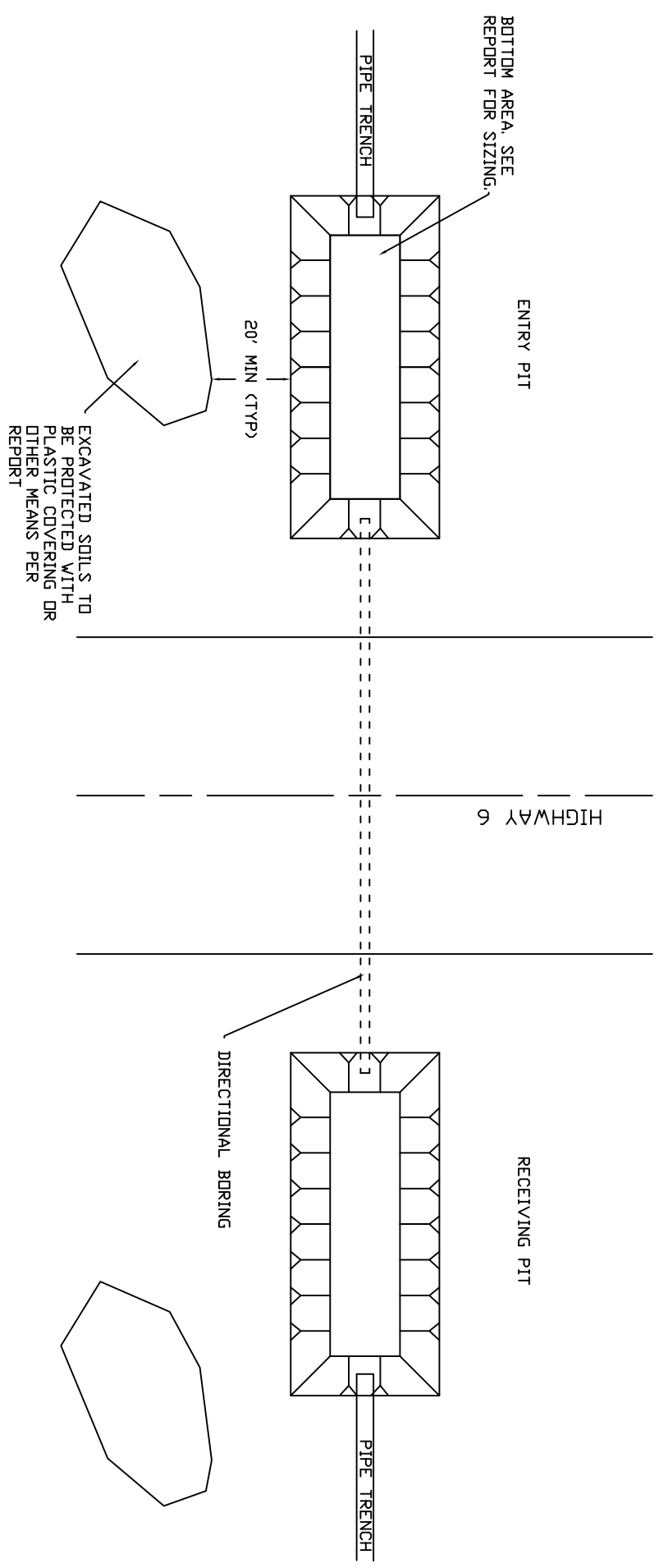
25. This Permit or Franchise does not authorize the Utility, or its employees, contractors, or agents, any right to cut, spray, retard, remove, destroy, disfigure, or in any way modify the physical condition of any vegetative material located on the state-owned highway right of way. Should the Utility anticipate that its Work will alter the appearance of the state-owned highway right of way vegetation, the Utility shall notify WSDOT representative listed in special provision 1 to obtain WSDOT's prior written approval of the Utility's proposed work. If WSDOT permits the Utility to modify the state-owned highway right of way vegetation, it agrees that any vegetation cutting and/or trimming activities shall be conducted in such a manner that the state-owned highway right of way vegetation appearance will not be damaged. Should the Utility damage the appearance of the state-owned highway right of way vegetation without WSDOT's prior written approval, the Utility is subject to penalties provided for in RCWs 47.40.070, 47.40.080, and 4.24.630, as applicable.
26. The Utility hereby certifies that its facilities described in this Permit or Franchise are (1) in compliance with the Control Zone Guidelines, or (2) for a franchise consolidation or renewal, a mitigation plan has been submitted and approved for any existing Location I or Location II utility objects to be corrected in accordance with the Control Zone Guidelines, pursuant to Chapter 9 of WSDOT's Utilities Manual (M 22-87) and any revisions thereto.
27. The Utility shall not assign or transfer this Permit or Franchise without WSDOT's prior written approval. The Utility understands that any assignment or transfer requires the assignee or transferee to have the means to assume all obligations, duties, and liabilities of the terms and conditions of this Permit or Franchise, and the Utility will advise the assignee or transferee of its obligation to apply for an updated or replacement Permit or Franchise. If WSDOT does not approve the assignment or transfer, this Permit or Franchise shall automatically terminate, and the facility occupying state-owned highway right of way shall be subject to the terms of RCW 47.44.060.
28. The Utility, its successors and assigns, shall indemnify, defend at its sole cost and expense, and hold harmless the State of Washington, its officers and employees, from all claims, demands, damages (both to persons and/or property), expenses, regulatory fines, and/or suits that (1) arise out of or are incident to any acts or omissions of the Utility, its agents, contractors, and/or employees, in the use of the state-owned highway right of way as authorized by the terms and conditions of this Permit or Franchise, or (2) are caused by the breach of any of the terms or conditions of this Permit or Franchise by the Utility, its successors and assigns, and its contractors, agents, and/or employees. The Utility, its successors and assigns, shall not be required to indemnify, defend, or hold harmless the State of Washington, its officers and/or employees, if the claim, suit, or action for damages (both to persons and/or property) is caused by the acts or omissions of the State of Washington, its officers and/or employees; provided that, if such claims, suits, or actions result from the concurrent negligence of (a) the State of Washington, its officers and/or employees, and (b) the Utility, its agents, contractors, and/or employees, or involves those actions covered by RCW 4.24.115, the indemnity provisions provided herein shall be valid and enforceable only to the extent of the acts or omissions of the Utility, its agents, contractors, and/or employees.
29. The Utility agrees that its obligations under this Permit or Franchise extend to any claim, demand, and/or cause of action brought by, or on behalf of, any of its employees or agents while performing Work under this Permit or Franchise while located on state-owned highway right of way. For this purpose, the Utility, by MUTUAL NEGOTIATION, hereby waives, with respect to the State of Washington only, any immunity that would otherwise be available to it against such claims under the Industrial Insurance provisions in chapter 51.12 RCW.
30. The indemnification and waiver provided for in general provisions 28 and 29 shall survive the termination of this Permit or Franchise.
31. Any action for damages against the State of Washington, its agents, contractors, and/or employees, arising out of damages to a utility or other facility located on state-owned highway right of way, shall be subject to the provisions and limitations of RCW 47.44.150.
32. This Permit or Franchise shall not be deemed or held to be an exclusive one and shall not prohibit WSDOT from granting rights of like or other nature to other public or private utilities, nor shall it prevent WSDOT from using any of the state-owned highway right of way or other properties for transportation purposes, or affect WSDOT's right to full supervision and control over all or any part of the state-owned highway right of way or properties, none of which is hereby surrendered. Further, WSDOT reserves the exclusive right to require that all utility facilities be subject to joint trenching and occupancy.



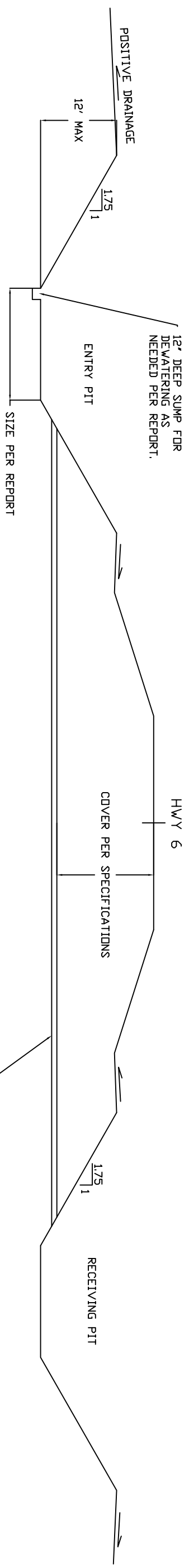
## **APPENDIX B**

### **SOILS INFORMATION FOR BORING**

- NOTES:
1. IF GROUNDWATER SEEPAGE IS DISCOVERED WITHIN THE JACKING PITS, PIT SHALL BE NOTIFIED IMMEDIATELY PRIOR TO CONTINUING WORK.
  2. JACKING PIT DEPTHS ARE LIMITED TO 12 FEET. ADDITIONAL DEPTH IS FEASIBLE IF NEEDED, HOWEVER, PIT SHALL BE NOTIFIED PRIOR TO PROCEEDING.
  3. CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO AT LEAST 5 FEET FROM THE TOP OF ALL CUT SLOPES.
  4. EXISTING STRUCTURES SHOULD NOT BE LOCATED CLOSER THAN 10 FEET FROM JACKING PITS. PIT SHOULD BE NOTIFIED IF PITS ARE REQUIRED TO BE CLOSER THAN 10 FEET.
  5. THE BOTTOM AREA OF THE JACKING PIT IS NOT A LIMITING FACTOR OF THE GEOTECHNICAL DESIGN. THE BOTTOM AREA MAY BE OF ANY SIZE IN ORDER TO ACCOMMODATE EQUIPMENT AND WORKERS.
  6. THE BOTTOM OF PITS MAY BE COMPACTED, COVERED WITH MATERIALS OR OTHER NECESSARY MEANS TO SUPPORT CONSTRUCTION EQUIPMENT.
  7. ALL WORK SHALL CONFORM TO OSHA AND WSDOT STANDARDS.



PLAN VIEW  
NTS



PROFILE VIEW  
NTS



PROJECT:  
RIVERSIDE FORCEMAIN  
JACKING PIT

ENGINEER:  
PACIFIC TESTING & INSPECTION, INC.  
2417 HARRISON AVENUE  
CENTRALIA, WASHINGTON 98531  
360-736-3922

1/25/19

PLAN & PROFILE

# Pacific Testing & Inspection Inc.

2417 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6002

## LOG OF TEST PIT

<b>Project No.:</b> 180077	<b>Project Name:</b> Riverside Forcemain	<b>Client:</b> Gibbs & Olson	<b>Date:</b> 12/21/18
-------------------------------	---	---------------------------------	--------------------------

<b>Test Pit No.:</b> TP1	<b>Location:</b> North corner of Riverside @ Intersection with Hwy 6	<b>Diameter:</b>	
-----------------------------	--	------------------	--

<b>Logged By:</b>	<b>Depth of Water:</b> N/A	<b>Date Checked:</b>	<b>Depth of Caving:</b>
-------------------	----------------------------	----------------------	-------------------------

Elev. Or Depth	Lab #	USCS	Description	Remarks	Moisture (%)
<b>1</b>		Surface	Surface: Weeds, grass, F-C Sand with gravel <3/4" 3" – 6", some silt and roots.	Fill	
<b>3</b>	18-1027	SP	10YR 3/3, Dark brown F – C sand with gravel <3/4" some silt, traces of roots wet, dense	Fill: Gravel Burrow	9.3%
<b>5</b>	18-1028	SW	10 YR 3/2, Very Dark Grayish Brown, coarse sand with gravel rounded ≤ 3/4", cobble 3" – 6" about 10%, no organics, wet, some silt, dense	Fill: Boulders, gravel burrow	4.9%
<b>6</b>			<b>Old roadway section 6" A/C</b>	Old Road	4.7%
<b>7</b>	18-1029	SW	10YR 3/1 Very dark gray coarse sand with gravel rounded, ≤ 3/4", cobble @ about 10%, wet, some trace of silt, dense	Fill: Gravel burrow, boulders	
<b>9</b>			<b>Test pit terminated</b>	No Change	
<b>10</b>					
<b>11</b>					
<b>12</b>					
<b>13</b>					

<b>Reported by:</b> Mario Hernandez, Inspector	<b>Reviewed by:</b> Michael Staten, PE
---	---

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

# Pacific Testing & Inspection Inc.

2417 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6002

## LOG OF TEST PIT

<b>Project No.:</b> 180077	<b>Project Name:</b> Riverside Forcemain	<b>Client:</b> Gibbs & Olson	<b>Date:</b> 12/21/18
-------------------------------	---	---------------------------------	--------------------------

<b>Test Pit No.:</b> TP2	<b>Location:</b> North corner of Riverside @ Intersection with Hwy 6	<b>Diameter:</b>	
-----------------------------	--	------------------	--

<b>Logged By:</b>	<b>Depth of Water:</b> N/A	<b>Date Checked:</b>	<b>Depth of Caving:</b>
-------------------	----------------------------	----------------------	-------------------------

Elev. Or Depth	Lab #	USCS	Description	Remarks	Moisture (%)
1		Surface	Grass, weeds, F – C sand with gravel $\leq$ ¾", also crushed rock from previous construction, silt traces.		
3	18-1030	SW	10YR 3/3, Dark brown, Fine coarse sand, Gravel $\leq$ ¾" rounded, cobbles 3" about 10%, Boulders very wet, Some traces of silt, dense.		4.7%
5					
6					
7			Test Pit Terminated		
9					
10					
11					
12					
13					

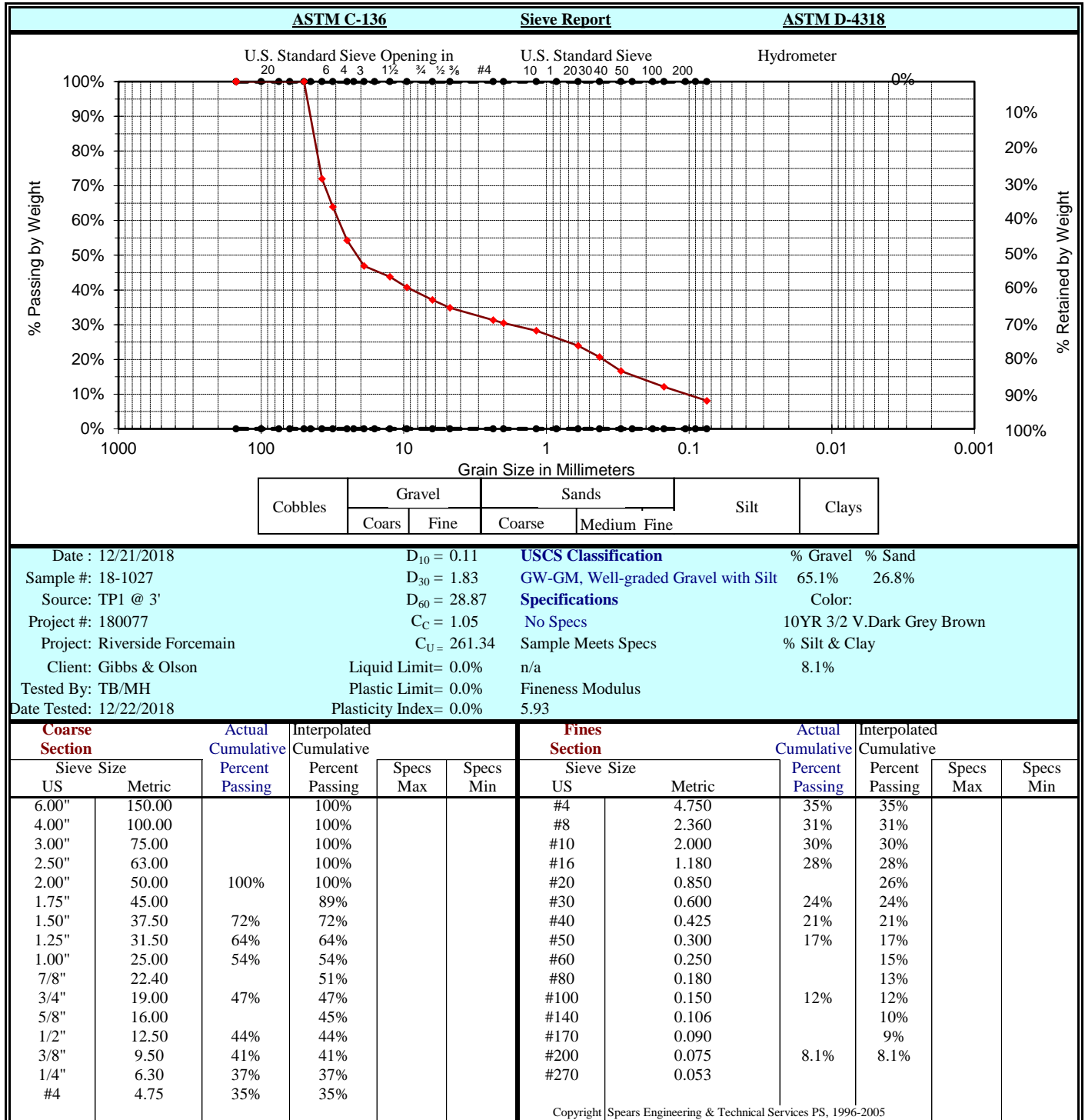
<b>Reported by:</b> Mario Hernandez, Inspector	<b>Reviewed by:</b> Michael Staten, PE
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# Pacific Testing Inspection Inc.

2417 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6022



Comments: Moisture content = 9.3%

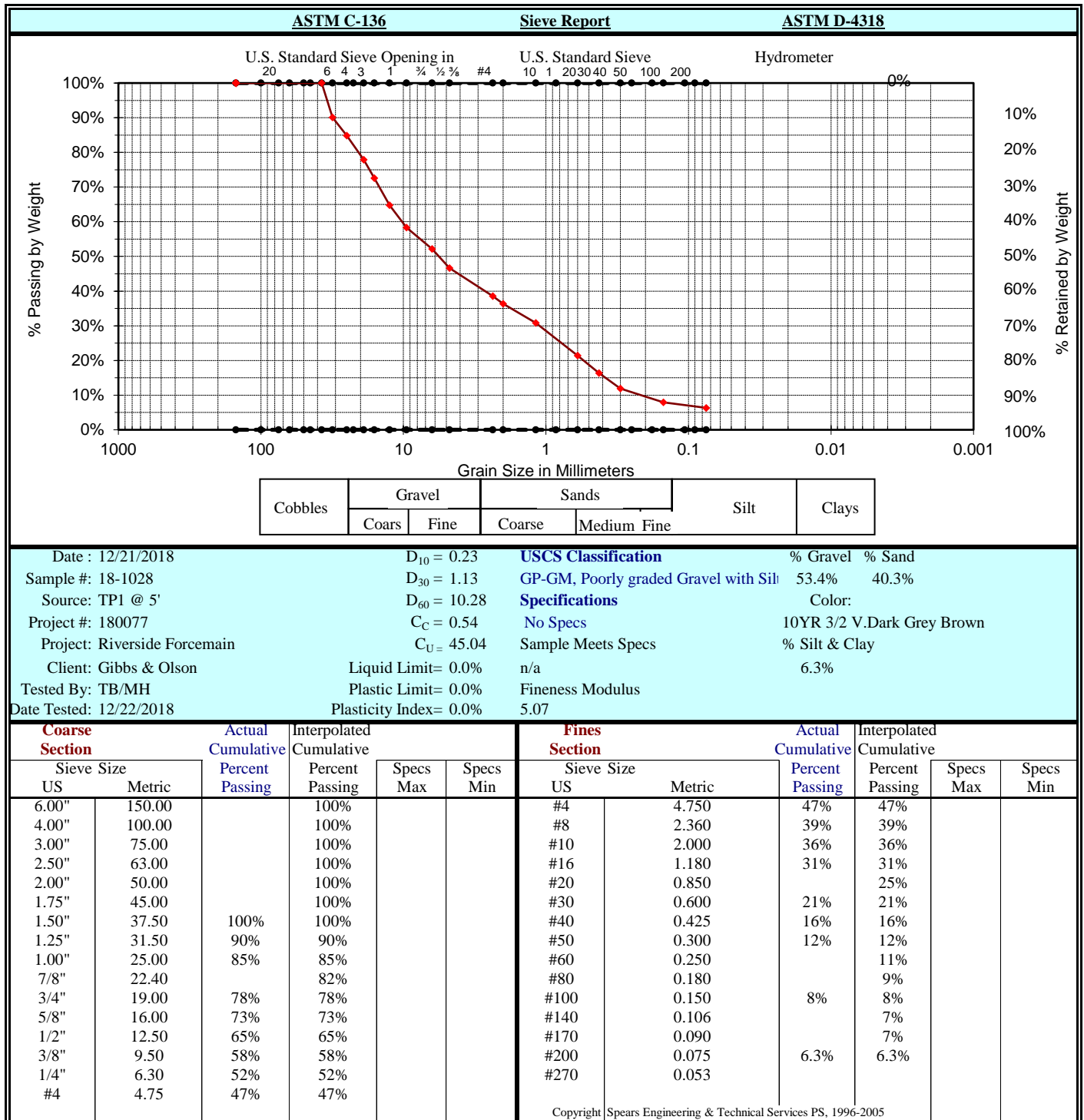
Reviewed by: Tim Barney

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Comments: Moisture content = 4.9%

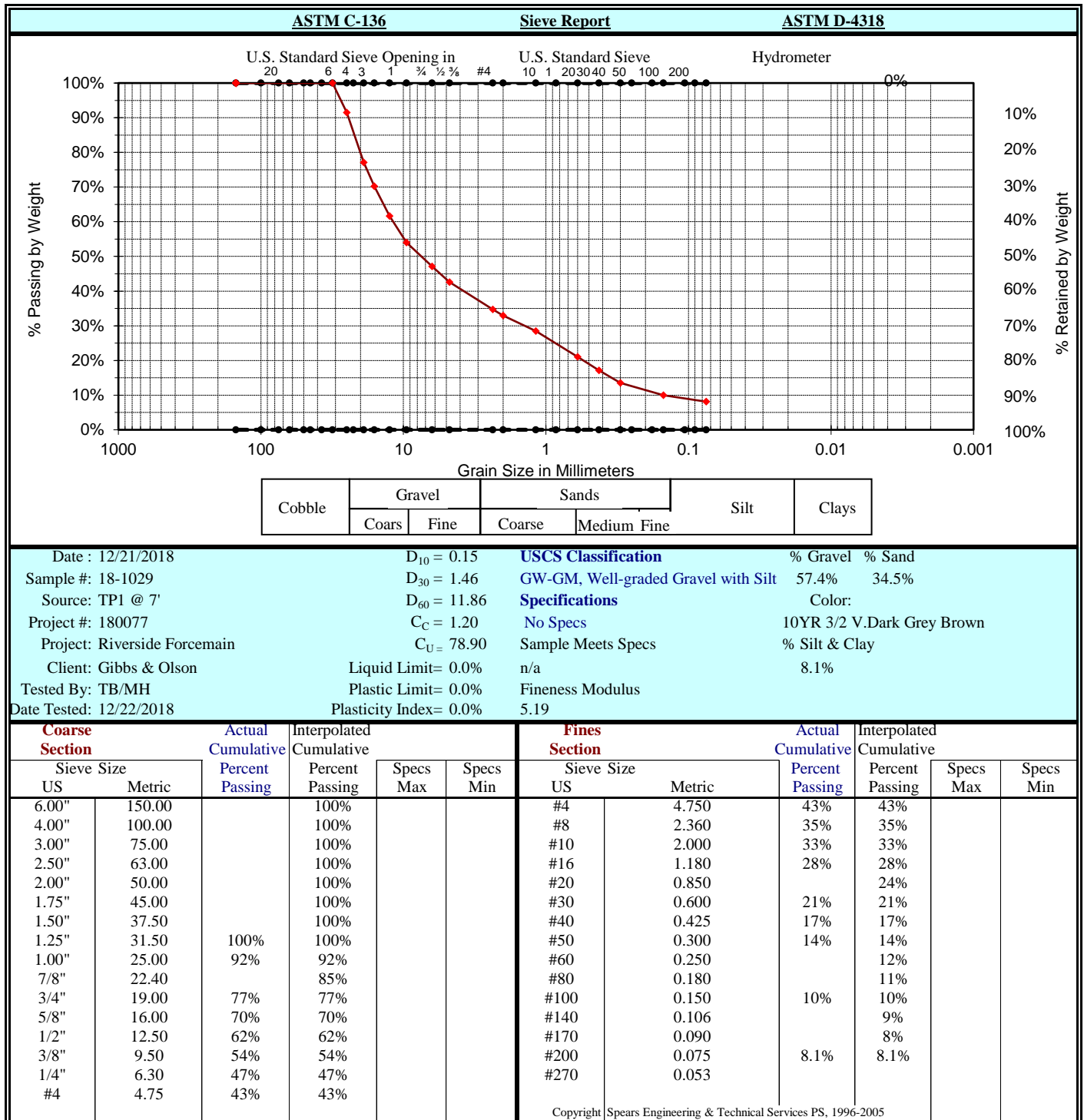
Reviewed by: Tim Barney

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# Pacific Testing Inspection Inc.

2417 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6022



Comments: Moisture content = 4.7%

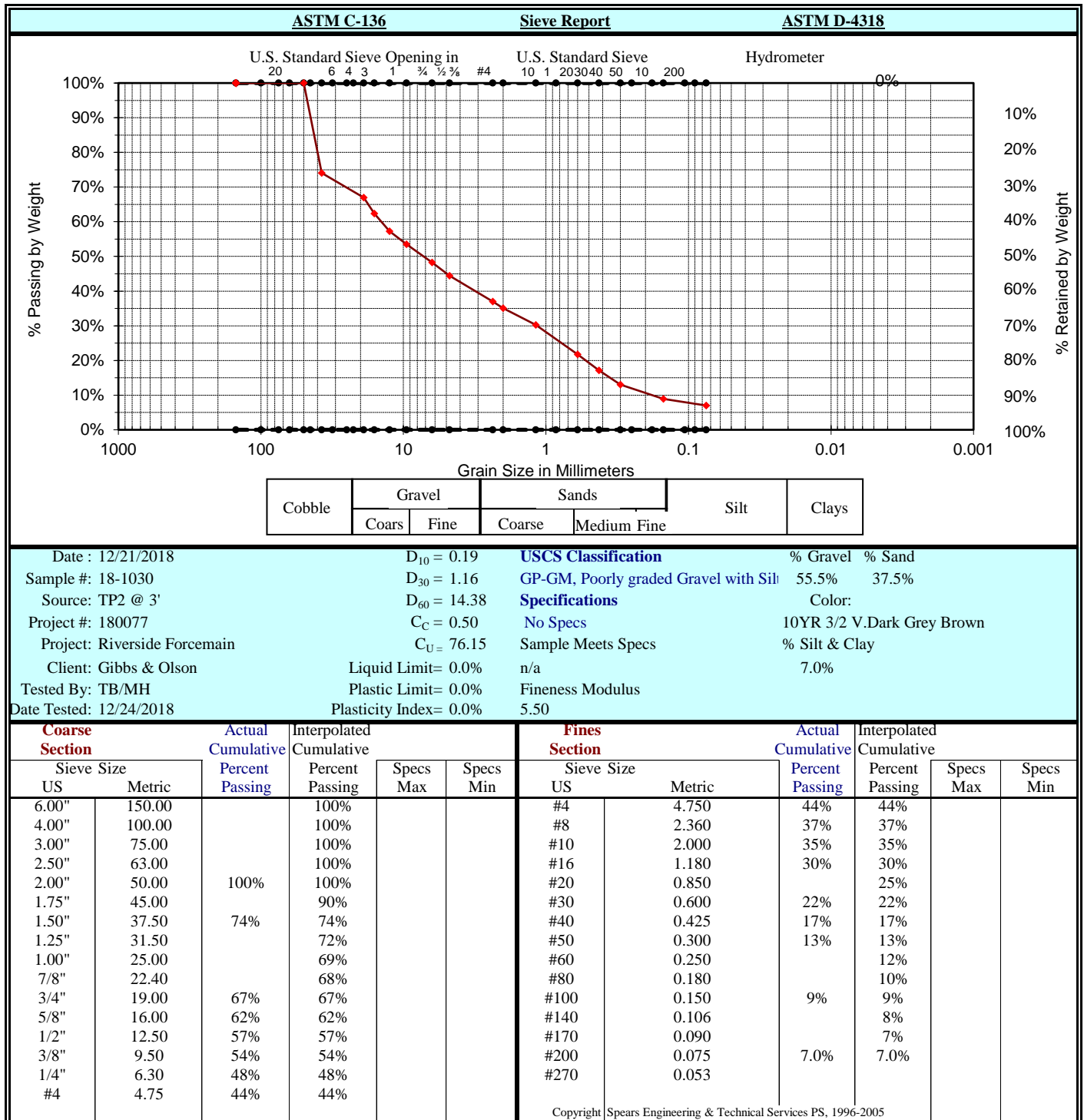
Reviewed by: Tim Barney

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# Pacific Testing Inspection Inc.

2417 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6022



Comments: Moisture content = 4.7%

Reviewed by: Tim Barney

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# Pacific Testing & Inspection, Inc.

2417 Harrison Avenue, Centralia, WA 98531  
Phone (360) 736-3922 Fax (360) 807-6002  
[www.ptillc.net](http://www.ptillc.net)

January 25, 2019

Attn: Mike Marshall  
Gibbs & Olson  
PO Box 400  
Longview, Washington 98632

RE: Riverside Forcemain Geotechnical Report  
Riverside Drive and Highway 6, Chehalis, Washington  
PTI Project # 180077

To Whom It May Concern,

Pacific Testing & Inspection, Inc. (PTI) is providing this report in support of the proposed jacking pit required for a directional boring in order to replace a sewer main beneath Highway 6 in Chehalis, Washington.

## Subsurface Conditions

A total of two (2) test pits were excavated to a depth of up to 9 feet for this project on December 21, 2018. PTI observed subsurface conditions and collected soil samples for laboratory testing.

Subsoils were observed to be primarily fill soils consisting of both well graded and poorly graded gravel with silt (GW-GM and GP-GM) with sand. Some organics were observed within the upper 3 feet, and some cobbles and boulders were found throughout the test pits. Neither groundwater or indications of seasonal groundwater were observed within either of our test pits.

See the test pit logs and sieve analysis reports enclosed with this report for specific information on our subsurface investigation.

## Earthwork

PTI recommends excavation of the jacking pits to a maximum depth of 12 feet from the existing ground surface. Both entry and exit pits should have cut slopes of no steeper than 1.75:1 (horizontal:vertical). The bottom area of the pit should be at least 15 feet in width and a length sufficiently sized for the bore machine, its attachments and working space. Excavated material should be placed at least 20 feet from the jacking pits, and protected from erosion by plastic covering or other means to prevent sedimentation. The bottom area of the pits may be reduced or enlarged as necessary, and its size is inconsequential with relation to geotechnical recommendations.

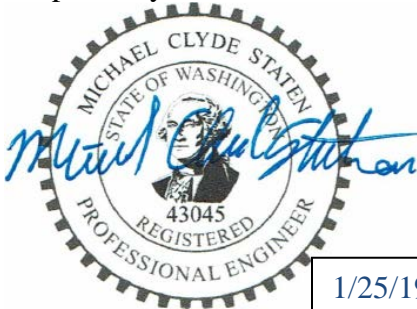
Construction equipment should be limited to at least 5 feet away from the top of the cut slope. If the boring pits are located within 10 feet of existing structures, PTI should be notified in order to determine if these structures are a safe distance from being influenced by the excavation.

The ground surface surrounding the jacking pits should be graded in order to provide positive surface drainage away from the pits. Alternatively, berms may be incorporated in order to divert runoff away from the pits. If seepage is present within the pits during the excavation, PTI should be notified immediately in order to accept or revise our current recommendations. Minor runoff within the pits are acceptable, and pooling may be mitigated as follows. The bottom of the jacking pit may be sloped at 2% if grading does not affect boring operations. Excavating a 12-inch deep sump may be completed where necessary in order to pump stormwater away from the working area.

Upon completion, the jacking pits should be backfilled and compacted. Where necessary, pipe bedding materials per the accepted plans and specifications should be placed and compacted. The remaining pit volume may be backfilled using excavated materials free of significant organics and debris. This material should be placed and compacted within the pits in 12-inch lifts, and compacted to at least 95% relative to the modified Proctor.

If you have any questions, require further information, or need design assistance please contact us.

Respectfully submitted,



1/25/19

Michael Staten, PE  
Engineer

## **APPENDIX C**

### **INADVERTENT DISCOVERY PLAN**

PLAN AND PROCEDURES FOR THE UNANTICIPATED DISCOVERY OF CULTURAL  
RESOURCES AND HUMAN SKELETAL REMAINS

RIVERSIDE ROAD FORCEMAIN REPLACEMENT PROJECT

LEWIS COUNTY WASHINGTON

**1. INTRODUCTION**

The city of Chehalis intends to construct a sewer extension project, funded by the **City**. The purpose of this project is to extend sewer and provide grinder pumps for nine houses with failing septic systems. The following Inadvertent Discovery Plan (IDP) outlines procedures to follow, in accordance with state and federal laws, if archaeological materials or human remains are discovered.

**2. RECOGNIZING CULTURAL RESOURCES**

A cultural resource discovery could be prehistoric or historic. Examples include:

- An accumulation of shell, burned rocks, or other food related materials,
- Bones or small pieces of bone,
- An area of charcoal or very dark stained soil with artifacts,
- Stone tools or waste flakes (i.e. an arrowhead, or stone chips),
- Clusters of tin cans or bottles, logging or agricultural equipment that appears to be older than 50 years,
- Buried railroad tracks, decking, or other industrial materials.

When in doubt, assume the material is a cultural resource.

**3. ON-SITE RESPONSIBILITIES**

**STEP 1: STOP WORK.** If any Chehalis employee, contractor or subcontractor believes that he or she has uncovered a cultural resource at any point in the project, all work adjacent to the discovery must stop. The discovery location should be secured at all times.

**STEP 2: NOTIFY MONITOR.** If there is an archaeological monitor for the project, notify that person. If there is a monitoring plan in place, the monitor will follow its provisions.

**STEP 3: NOTIFY RECIPIENT PROJECT MANAGER.** Contact the Chehalis Project Manager or applicable contacts:

Chehalis' Project Manager:

Name: Patrick Wiltzius

Number: (360) 740-7536

Email: pwiltzuis@ci.chehalis.wa.us

Ecology Staff Project Manager

Name: Dainis Kleinbergs

Number: (360) 407-7050

Email: Dainis.kleinbergs@ecy.wa.gov

Chehalis' Senior Staff:

Name: Rick Sahlin

Number: (360) 345-1223

Email: rsahlin@ci.chehalis.wa.us

**Assigned Alternates:**

Assigned Project Manager Alternate:

Name: Russ Cox

Number: (360) 345-1227

Email: rcox@ci.chehalis.wa.us

Ecology Environmental Review  
Coordinator (Alternate):

Name: Liz Ellis

Number: (360) 407-6429

email: lell461@ecy.wa.gov

The Chehalis Project Manager or applicable staff will make all other calls and notifications.

**If human remains are encountered**, treat them with dignity and respect at all times. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. **Do not call 911 or speak with the media.**

#### 4. FURTHER CONTACTS AND CONSULTATION

##### A. Chehalis Project Manager's Responsibilities:

- **Protect Find:** The Chehalis Project Manager is responsible for taking appropriate steps to protect the discovery site. All work will stop in an area adequate to provide for the total security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed following provisions for treating archaeological/cultural material as set forth in this document.
- **Direct Construction Elsewhere On-site:** The Chehalis Project Manager may direct construction away from cultural resources to work in other areas prior to contacting the concerned parties.
- **Contact Chehalis Senior Staff:** If the Chehalis' Senior Staff person has not yet been contacted, the Chehalis Project Manager will do so.

##### B. Chehalis Senior Staff Responsibilities:

- **Identify Find:** The Chehalis Senior Staff (or a Cultural Resource Specialist if so delegated), will ensure that a qualified professional archaeologist examines the find to determine if it is archaeological.
  - If it is determined not archaeological, work may proceed with no further delay.
  - If it is determined to be archaeological, the Chehalis Senior Staff or Cultural Resource Specialist will continue with notification.
  - If the find may be human remains or funerary objects, Chehalis Senior Staff or Cultural Resource Specialist will ensure that a qualified physical anthropologist examines the find. **If it is determined to be human remains, the procedure described in Section 5 will be followed.**
- **Notify DAHP:** The Chehalis Senior Staff (or a Cultural Resource Specialist if so delegated) will contact the involved federal agencies (if any) and the Department of Archaeology and Historic Preservation (DAHP).
- **Notify Tribes:** If the discovery may relate to Native American interests, the DAHP and Ecology Supervisor or Coordinator will coordinate with the interested and affected tribes.

## General Contacts

### Federal Agencies:

Agency:

Name

Title

Number

Email

### State Agencies:

Agency: Dept. of Ecology

Name: Dainis Kleinbergs

Title: Engineer

Number: (360) 407-7050

Email:

Dainis.kleinbergs@ecy.wa.gov

### Department of Archaeology and Historic Preservation:

Dr. Allyson Brooks

State Historic Preservation Officer

360-586-3066

Rob Whitlam, Ph.D.

Staff Archaeologist

360-586-3050

The DAHP or appropriate Ecology Staff will contact the interested and affected Tribes for a specific project.

Tribes consulted on this project are:

### Tribe: Chehalis

Name: David Burnett

Title: Tribal Chair

Number: (360) 273-5911

Email: chairman@chehalis.org

### Tribe: Cowlitz

Name: Dave Burlingame

Title: Director, Cultural Resources  
Department

Number: (360) 577-6962

Email: culture@cowlitz.org

Tribe: Nisqually

Name: Jackie Wall

Title: Historic Preservation Office

Number: (360) 456-5221

Email: wall.jackie@nisqually-  
nsn.gov

### C. Further Activities

- Archaeological discoveries will be documented as described in Section 6.
- Construction in the discovery area may resume as described in Section 7.

## **5. SPECIAL PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL MATERIAL**

Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect.

If the project occurs on federal lands (e.g., national forest or park, military reservation) the provisions of the Native American Graves Protection and Repatriation Act of 1990 apply, and the responsible federal agency will follow its provisions. Note that state highways that cross federal lands are on an easement and are not owned by the state.

If the project occurs on non-federal lands, Chehalis will comply with applicable state and federal laws, and the following procedure:

### A. Notify Law Enforcement Agency or Medical Examiner/Coroner's Office:

In addition to the actions described in Sections 3 and 4, the Chehalis Project Manager will immediately notify the local law enforcement agency or medical examiner/coroner's office.

The medical examiner/coroner (with assistance of law enforcement personnel) will determine if the remains are human, whether the discovery site constitutes a crime scene, and will notify DAHP.

**Chehalis Police Department**

**(360) 748-8605**



## B. Participate in Consultation:

Per RCW 27.44.055, RCW 68.50, and RCW 68.60, DAHP will have jurisdiction over non-forensic human remains. Ecology staff will participate in consultation.

## C. Further Activities:

- Documentation of human skeletal remains and funerary objects will be agreed upon through the consultation process described in RCW 27.44.055, RCW 68.50, and RCW 68.60.
- When consultation and documentation activities are complete, construction in the discovery area may resume as described in Section 7.

## **6. DOCUMENTATION OF ARCHAEOLOGICAL MATERIALS**

Archaeological deposits discovered during construction will be assumed eligible for inclusion in the National Register of Historic Places under Criterion D until a formal Determination of Eligibility is made.

Chehalis staff will ensure the proper documentation and assessment of any discovered cultural resources in cooperation with the federal agencies (if any), DAHP, Ecology, affected tribes, and a contracted consultant (if any).

All prehistoric and historic cultural material discovered during project construction will be recorded by a professional archaeologist on cultural resource site or isolate form using standard techniques. Site overviews, features, and artifacts will be photographed; stratigraphic profiles and soil/sediment descriptions will be prepared for subsurface exposures. Discovery locations will be documented on scaled site plans and site location maps.

Cultural features, horizons and artifacts detected in buried sediments may require further evaluation using hand-dug test units. Units may be dug in controlled fashion to expose features, collect samples from undisturbed contexts, or interpret complex stratigraphy. A test excavation unit or small trench might also be used to determine if an intact occupation surface is present. Test units will be used only when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site's significance. Excavations will be conducted using state-of-the-art techniques for controlling provenience.

Spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material, and depth to sterile soil, regolith, or bedrock will be recorded for each probe on a standard form. Test excavation units will be recorded on unit-level forms, which include plan maps for each excavated level, and material type, number, and vertical provenience (depth below surface and stratum association where applicable) for all artifacts recovered from the level. A stratigraphic profile will be drawn for at least one wall

of each test excavation unit.

Sediments excavated for purposes of cultural resources investigation will be screened through 1/8-inch mesh, unless soil conditions warrant ¼-inch mesh.

All prehistoric and historic artifacts collected from the surface and from probes and excavation units will be analyzed, catalogued, and temporarily curated. Ultimate disposition of cultural materials will be determined in consultation with the federal agencies (if any), DAHP, Ecology and the affected tribes.

Within 90 days of concluding fieldwork, a technical report describing any and all monitoring and resultant archaeological excavations will be provided to the Chehalis Project Manager, who will forward the report for review and delivery to Ecology, the federal agencies (if any), DAHP, and the affected tribe(s).

If assessment activity exposes human remains (burials, isolated teeth, or bones), the process described in Section 5 above will be followed.

## **7. PROCEEDING WITH WORK**

Work outside the discovery location may continue while documentation and assessment of the cultural resources proceed. A professional archaeologist must determine the boundaries of the discovery location. In consultation with Ecology, DAHP and any affected tribes, the Chehalis Project Manager will determine the appropriate level of documentation and treatment of the resource. If there is a federal nexus, Section 106 consultation and associated federal laws will make the final determinations about treatment and documentation.

Work may continue at the discovery location only after the process outlined in this plan is followed and Chehalis, DAHP, any affected tribes, Ecology (and the federal agencies, if any) determine that compliance with state and federal laws is complete.

## **8. RECIPIENT RESPONSIBILITY**

**The city of Chehalis is responsible for developing an IDP. The IDP must be immediately available by request by any party. An IDP must be immediately available onsite and be implemented to address any discovery.**

# I might implement the IDP / UDP if ...

I see chipped stone artifacts.



- Glass-like material
- Angular
- “Unusual” material for area
- “Unusual” shape
- Regularity of flaking
- Variability of size



# I might implement the IDP / UDP if ...

I see ground or pecked stone artifacts.



- Striations or scratching
- Unusual or unnatural shapes
- Unusual stone
- Etching
- Perforations
- Pecking
- Regularity in modifications
- Variability of size, function, and complexity

# I might implement the IDP / UDP if ...

I see bone or shell artifacts.



- Often smooth
- Unusual shape
- Carved
- Often pointed if used as a tool
- Often wedge shaped like a “shoe horn”



# I might implement the IDP / UDP if ...

I see bone or shell artifacts.



- Often smooth
- Unusual shape
- Perforated
- Variability of size



# I might implement the IDP / UDP if ...

## I see fiber or wood artifacts.



- Wet environments needed for preservation
- Variability of size, function, and complexity
- Rare



# I might implement the IDP / UDP if ...

I see historic period artifacts.





# I might implement the IDP / UDP if ...

## I see strange, different or interesting looking dirt, rocks, or shells



- Human activities leave traces in the ground that may or may not have artifacts associated with them
- “Unusual” accumulations of rock (especially fire-cracked rock)
- “Unusual” shaped accumulations of rock (e.g., similar to a fire ring)
- Charcoal or charcoal-stained soils
- Oxidized or burnt-looking soils
- Accumulations of shell
- Accumulations of bone or artifacts
- Look for the “unusual” or out of place (e.g., rock piles or accumulations in areas with few rock)

# I might implement the IDP / UDP if ...

I see strange, different or interesting looking dirt, rocks, or shells



- “Unusual” accumulations of rock (especially fire-cracked rock)
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# I might implement the IDP / UDP if ...

I see strange, different or interesting looking dirt, rocks, or shells



Layers of shell midden

Historic Debris

- Often have a layered or “layer cake” appearance
- Often associated with black or blackish soil
- Often have very crush and compacted shell



**I might implement the IDP / UDP if ...**

**I see historic foundations or buried structures.**



