The Tulalip Tribes of Washington

HERMOSA ROADS

Tulalip Tribes Project No.
2021-101-C

Contract Documents
March 2022

Hermosa Roads

Tulalip Tribes Project No.: 2021-101-C

Contract Documents

Prepared for

The Tulalip Tribes
8802 27th Avenue NE
Tulalip, WA 98271-9694

Prepared by

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March 2022

CITATION

Parametrix. 2022. Hermosa Roads Contract Documents.
Prepared by Parametrix, Puyallup, WA. March 2022.

CERTIFICATION

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seal, as a professional engineer licensed to practice as such, is affixed below.

3/30/2022

Prepared by John Lewis Wright, III, PE

Checked by Happy David Longfellow, PE

Approved by Happy David Longfellow, PE

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Notice to Bidders

Sealed bid proposals will be received by The Tulalip Tribes of Washington, at the 116th Street NE Job Shack Site located at 11404 - 34th Avenue NE, Tulalip, WA for the following Project:

Tulalip Tribes Project Nos.: 2021-101-C

The Hermosa Roads in accordance with the Drawings and Specifications prepared by: Parametrix 253-394-3649, **hlongfellow@parametrix.com**. The Roads and Transportation Manager for the Project is Christina Parker, 360.913.4205, christinaparker@tulaliptribes-nsn.gov.

The Hermosa Roads project will include pavement rehabilitation of the existing streets, removal of an existing gravel roadway, installation of an asphalt pavement roadway and installation of a PVC water main. The project is located on the Tulalip Reservation.

Schedule A – Hermosa Roads work includes but is not limited to full depth pavement and subgrade replacement and utility and monument cover adjustments on 42nd Drive NW, 78th Place NW, 79th Place NW, and Shelton Gross Road with sidewalk, curb and gutter, curb ramps, and drainage improvements. Work also includes associated channelization, signing, and surface restoration in accordance with these Specifications and the Plans.

Schedule B – Water system improvements work includes but is not limited to trench excavation, potholing, trench shoring, installation of pipe zone bedding, approximately 700 linear feet of 8-inch and 2,500 linear feet of 6-inch C900 PVC water main and appurtenances, four fire hydrants, 29 1-inch services, seven 2-inch services, four connections to existing water mains, and trench backfill. Work also includes disinfection, pressure and bacteriological testing of the water main prior to connection to existing.

Schedule C – Water system improvements work includes but is not limited to trench excavation, potholing, trench shoring, installation of pipe zone bedding, approximately 1,600 linear feet of 10-inch, 80 linear feet of 8-inch and 90 linear feet of 6-inch C900 PVC water main and appurtenances, four fire hydrants, 13 connections to existing water mains, connection to existing PRV station and trench backfill. Work also includes disinfection, pressure and bacteriological testing of the water main prior to connection to existing and asphalt restoration including replacing pavement markings.

Schedule D – Water system improvements work includes but is not limited to trench excavation, potholing, trench shoring, installation of pipe zone bedding, approximately 800 linear feet of 10-inch and 20 linear feet of 8-inch C900 PVC water main and appurtenances, four connections to existing water mains, reconnect existing water services and trench backfill. Work also includes disinfection, pressure and bacteriological testing of the water main prior to connection to existing and asphalt restoration including replacing pavement markings.

Native American Preference related to contracting, subcontracting, and suppliers in the project is required and must meet The Tulalip Code, Chapter 9.05.

Sealed bids will be received for: Hermosa Roads until April 21, 2022, at 2:00 p.m. at which time, all bids will be opened and read aloud at the 116th Street NE Job Shack Site. All required bid

documentation shall be submitted to the 116th Street NE Job Shack Site, by the scheduled bid date and times. ORAL, TELEPHONIC, FAXED, OR TELEGRAPHIC BIDS WILL NOT BE ACCEPTED.

Plans, specifications, addenda, bidders list, and plan holders list for this project are available Free-of-charge access to project bid documents (plans, specifications, addenda, and Bidders List) is provided to Prime Bidders, Subcontractors, and Vendors by going to the Tulalip TERO Site: https://www.tulaliptero.com/InvitationToBid/TheTulalipTribes or the Builders Exchange Site: www.bxwa.com and clicking on "Posted Projects", "Public Works", and "Tribal Agencies – Tulalip Tribes". This online plan room provides Bidders with fully usable online documents with the ability to: download, view, print, order full/partial plan sets from numerous reprographic sources, and a free online digitizer/take-off tool. It is recommended that Bidders "Register" in order to receive automatic e-mail notification of future addenda and to place themselves on the "Self-Registered Bidders List". Bidders that do not register will not be automatically notified of addenda and will need to periodically check the on-line plan room for addenda issued on this project. Contact Builders Exchange of Washington at (425) 258-1303 should you require assistance with access or registration. The content available through bxwa.com is our property or the property of our licensors and is protected by copyright and other intellectual property laws. Access to project documents is intended for use by bidders (general contractors/prime bidders, subcontractors and suppliers), agency personnel and agency's consultants, as well as for personal, noncommercial, use by the public. You may display or print the content available for these uses only. "Harvesting" (downloading, copying, and transmitting) of any project information and/or project documents for purposes of reselling and/or redistributing information by any other party is not allowed by BXWA.

The Tulalip Tribes of Washington

CONFIDENTIALITY AGREEMENT

Upon award of a Contract the successful Bidder shall provide the Tulalip Tribes of Washington with a completed and signed Confidentiality Agreement as set forth herein. Successful Bidder shall also provide the Tulalip Tribes of Washington with a Confidentiality Agreement Completed and signed by all lower tier contractors and/or suppliers whom may perform Work on the Project.

I / we, the undersigned, have been provided certain confidential and proprietary information ("Confidential Information") regarding the Tulalip Tribes of Washington for the Project identified as Hermosa Roads, Tulalip Tribes Project No.: 2021-101-C ("Project"). "Confidential Information" shall include, without limitation, all financial information, data, materials, products, manuals, business plans, marketing plans, Project design documents, or other information disclosed or submitted orally, in writing, or by any other media.

The undersigned acknowledges that this Confidential Information is sensitive and confidential in nature, and that the disclosure of this information to anyone not part of this agreement would be damaging to the Tulalip Tribes of Washington.

In consideration of the premises herein contained, I / we understand and agree that I / we will not disclose any "*Confidential Information*" regarding this "*Project*" to any person(s) not privy to this agreement. Furthermore, I / we will not disclose any of this information directly or indirectly to any competitor of the Tulalip Tribes of Washington.

Agreed to and accepted:

Signature: _____

Title: _____

Printed Name: _____

DATE: _____

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The Tulalip Tribes of Washington

INSTRUCTIONS TO BIDDERS

The Tulalip Tribes of Washington hereby invite you to submit a Bid Proposal for this project.

ARTICLE 1 – CONTRACT INFORMATION

1.1 PROJECT BID REQUIREMENTS

1.1.1 The Tulalip Tribes of Washington's Board of Directors has the authority to require those employers subject to The Tulalip Code, Chapter 9.05 – TERO Code and applicable federal laws and guidelines, to give preference to Indians in hiring promotions, training and all other aspects of employment contracting and subcontracting, and to give preference to Indians in contracting goods and services. Bidders and must comply with The Tulalip Code, Chapter 9.05 – TERO Code and the rules, regulations and orders of the TERO Commission.

1.1.2 With respect to each Project / Contract of $10,000 or more, operating within the exterior boundaries of the Tulalip Reservation or on Tribal Projects off the Reservation, the Contractor shall pay a onetime Fee of 1.75% of the total Project / Contract cost, i.e., equipment labor, materials and operations and any increase of the Contract / Project or Subcontract amount. If the Contractor initially enters into a Contract of less the $10,000, but subsequent changes in the Work increases the total Contract / Project amount to $10,000 or more, the TERO Fee shall apply to the total amount including increases.

1.1.3 The General Contractor shall be responsible for paying all TERO fees, including those attributable to the subcontractors. The fee shall be due in full prior to commencement of any work under the Contract / Project. However, where good cause is shown, the TERO Representative may authorize the General Contractor to pay said fee in installments over the course of the contract, when:

1.1.3.1 The decision whether to authorize an alternative arrangement, which, if allowed, shall be in writing, shall rest solely with the discretion of the TERO Representative.

1.1.4 Whenever an employer or union would be required by any provision of The Tulalip Code, Chapter 9.05 – TERO Code to give preference in employment, such

preference shall be given to the following persons in the following enumerated order:

a) Enrolled Tulalip Tribal Members

b) Spouses, Parent of a tribal member child, biological child born to an enrolled Tulalip Tribal Member, current legal guardian of a Tribal Member dependent child (with a proper letter of temporary or permanent legal guardianship from a court), or a tribal member in a domestic partner relationship (with documentation).

c) Other Natives/Indians shall mean any member of a federally recognized Indian tribe, nation or band, including members of federally recognized Alaskan Native villages or communities.

d) Spouse of federally recognized Native American

e) Regular current employees of the all Tulalip Tribal entities

f) Other

Where prohibited by applicable Federal law or contractual agreements, the above order of preference shall not apply. In such cases, preference shall be given in accordance with the applicable Federal law or contract.

1.1.5 The preference requirements contained in The Tulalip Code, Chapter 9.05 – TERO Code shall be binding on all contractors and subcontractors, regardless of tier, and shall be deemed a part of all resulting contract agreements.

1.1.6 For more information about The Tulalip Code, Chapter 9.05 – TERO Code, contact the Tulalip Tribes" TERO Department at 6406 Marine Drive, Tulalip, Washington 98271, Office (360) 716-4747 or Facsimile (360) 716-0249. The Tulalip TERO Code is available for review on the Tulalip TERO website: http://www.tulaliptero.com.

1.1.7 The following requirements apply to the Bid Award Criteria and Procedures for the Project:

1.1.7.1 The bidding is open to all contractors meeting the requirements of RCW.

1.1.7.2 The Contract will be awarded based on competitive bidding process detailed in these instructions and the Tulalip Code.

1.1.7.3 Minimum TERO Participation Requirements for Employment:

1.1.7.3.1 A minimum of fifteen percent (15%) of the entire project work force shall be “Preferred Employees” as defined in The Tulalip Code, Chapter 9.05 – TERO Code.

1.1.7.3.2 The total number of “Preferred Employees” employed by the Bidder, and those employed by its subcontractors shall be used to determine if Bidder satisfies the minimum requirement.

1.1.7.3.3 Bidders are encouraged to exceed the minimum requirement for employment.

1.1.7.4 Not Used.

1.1.7.5 Minimum TERO Participation Requirements in contracting with NAOB Subcontractors and Suppliers:

1.1.7.5.1 Bidders are encouraged to contract with NAOB Subcontractors and Suppliers.

1.1.7.5.2 Bidders shall list their NAOB Subcontractors and Suppliers on the Bid Form in Section IV B, pursuant to paragraph IB 3.5.6.

1.1.7.6 Bidder shall be considered nonresponsive if they do not meet the minimum requirements contained in this paragraph IB 1.1.7.

1.2 NOT USED.

1.3 GIVING NOTICE

1.3.1 Whenever any provision of the Contract Documents requires the giving of notice, such notice shall be deemed to have been validly given if delivered personally to the individual or to a member of the entity for whom the notice is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address of such individual or entity known to the giver of the notice.

1.3.1.1 All notices provided to the Bidder from the Construction Manager shall be copied to the Engineer.

1.3.1.2 All notices provided to the Bidder from the Engineer shall be copied to the Construction Manager.

1.3.1.3 All notices provided to the Engineer from the Bidder shall be copied to the Construction Manager.

1.3.1.4 All notices provided to the Construction Manager from the Bidder shall be copied to the Engineer.

1.3.2 When any period of time is referred to in the Contract Documents by days, it shall 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, Sunday, or a legal holiday, such day will be omitted from the computation and such period shall be deemed to end on the next succeeding day which is not a Saturday, Sunday, or legal holiday.

1.3.3 The effective date of any and all notices, regardless of the method of delivery, shall be the date of receipt.

1.4 USE OF FACSIMILE TRANSMISSION

1.4.1 Any notice required to be given by the Contract Documents may be given by facsimile transmission, provided the original signed notice is delivered pursuant to paragraph IB 1.3.1.

1.4.2 Notice of withdrawal of a bid may be given by facsimile transmission provided an original signed document is received within three (3) business days of the facsimile transmission.

ARTICLE 2 - BIDDING PROCEDURES

2.1 EXAMINATION OF CONTRACT DOCUMENTS AND PROJECT SITE

2.1.1 The Bidder shall examine all Contract Documents, including without limitation the Drawings and Specifications for all divisions of Work for the Project, noting particularly all requirements which will affect the Bidder's Work in any way. In addition, the Bidder must carefully examine all Contract Documents because laws and rules applicable to other Tribal projects are not necessarily applicable to this Project.

2.1.2 Failure of a Bidder to be acquainted with the extent and nature of Work required to complete any applicable portion of the Work, in conformity with all requirements of the Project as a whole wherever set forth in the Contract Documents, will not be considered as a basis for additional compensation.

2.1.3 The Bidder shall evaluate the Project site and related Project conditions where the Work will be performed, including without limitation the following:

2.1.3.1 The condition, layout and nature of the Project site and surrounding area;

2.1.3.2 The availability and cost of labor;

2.1.3.3 The availability and cost of materials, supplies and equipment;

2.1.3.4 The cost of temporary utilities required in the bid;

2.1.3.5 The cost of any permit or license required by a local or regional authority having jurisdiction over the Project;

2.1.3.6 The generally prevailing climatic conditions;

2.1.3.7 Conditions bearing upon transportation, disposal, handling, and storage of materials.

2.1.4 Unless otherwise specified in the Contract Documents, borings, test excavations and other subsurface information, if any, are provided solely to share information available to the Tulalip Tribes of Washington and any use of, or reliance upon, such items by the Bidder is at the risk of the Bidder. The Bidder shall be afforded access to the Project site to obtain the Bidder's own borings, test excavations and other subsurface information upon request made to the Construction Manager not less than ten (10) days prior to the opening of the bids.

2.2 PRE-BID MEETING

2.2.1 No Pre-Bid meeting will be held.

2.3 INTERPRETATION

2.3.1 If the Bidder finds any perceived ambiguity, conflict, error, omission or discrepancy on or between any of the Contract Documents, including without limitation the Drawings and Specifications, or between any of the Contract Documents and any applicable provision of law, including without limitation, the current International Building Code, the Bidder shall submit a written request to the Engineer, through the Construction Manager, for an interpretation or clarification.

2.3.1.1 The Bidder shall be responsible for prompt delivery of such request.

2.3.1.2 In order to prevent an extension of the bid opening, the Bidder is encouraged to make all requests for interpretation or clarification a minimum of seven (7) days before the bid opening.

2.3.2 If the Engineer determines that an interpretation or clarification is warranted, the Engineer shall issue an Addendum and the Construction Manager shall provide a copy to each person of record holding Contract Documents in accordance with paragraph IB 1.3. Any Addendum shall be deemed to have been validly given if it is delivered via facsimile, issued and mailed, or otherwise furnished to each person of record holding the Contract Documents. If any Addendum is issued within 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, the bid opening shall automatically be extended one (1) week, with no further advertising required.

2.3.3 Any interpretation or clarification of the Contract Documents made by any person other than the Engineer, or in any manner other than a written Addendum, shall not be binding and the Bidder shall not rely upon any such interpretation or clarification.

2.3.4 The Bidder shall not, at any time after the execution of the Contract, be compensated for a claim alleging insufficient data, incomplete, ambiguous, conflicting or erroneous Contract Documents, any discrepancy on or between Contract Documents, or incorrectly assumed conditions regarding the nature or character of the Work, if no request for interpretation or clarification regarding such matter was made by the Bidder prior to the bid opening.

2.4 STANDARDS

2.4.1 The articles, devices, materials, equipment, forms of construction, fixtures and other items named in the Specifications to denote kind quality or performance requirement shall be known as Standards and all bids shall be based upon those Standards.

2.4.2 Where two or more Standards are named, the Bidder may furnish any one of those Standards.

2.5 NOT USED.

2.6 BID FORM

2.6.1 Each bid shall be submitted on the Bid Form and sealed in an envelope clearly marked as containing a bid, indicating the Project name, the Contractor scope of work, and the date of the bid opening on the envelope.

2.6.1.1 Any change, alteration or addition in the wording of the Bid Form by a Bidder may cause the Bidder to be rejected as not responsible for award of a Contract.

2.6.1.2 Unless the Bidder withdraws the bid as provided in IB Article 4, the Bidder will be required to comply with all requirements of the Contract Documents, regardless of whether the Bidder had actual knowledge of the requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.

2.6.2 The Bidder shall fill in all relevant blank spaces in the Bid Form in ink or by typewriting and not in pencil.

2.6.2.1 The Bidder shall show bid amounts for the Total Base Bid and any Alternate(s) in both words and figures. In the case of a conflict between the words and figures, the amount shown in words shall govern, where such words are not ambiguous. When the Bidder's intention and the meaning of the words are clear, omissions or misspellings of words will not render the words ambiguous.

2.6.2.2 Any alteration or erasure of items filled in on the Bid Form shall be initialed by the Bidder in ink.

2.6.3 When an Alternate is listed on the Bid Form, the Bidder shall fill in the applicable blank with an increased or decreased bid amount. The Tulalip Tribes of Washington reserves the right to accept or reject any or all bids on Alternates, in whole or in part, and in any order. Voluntary Alternates submitted by a Bidder are prohibited from becoming the basis of the Contract award.

2.6.3.1 If no change in the bid amount is required, indicate "No Change" or "$0 dollars".

2.6.3.2 Failure to make an entry or an entry of "No Bid," "N/A," or similar entry for any Alternate by a Bidder may cause the Bidder to be rejected as nonresponsive only if that Alternate is selected.

2.6.3.3 If an Alternate is not selected, an entry by a Bidder as listed in paragraph IB 2.6.3.2 on that Alternate will not, by itself, render a Bidder nonresponsive.

2.6.3.4 In a combined bid, a blank entry or an entry of "No Bid," "N/A," or similar entry on an Alternate will cause the bid to be rejected as nonresponsive only if that Alternate applies to the combined bid and that Alternate is selected.

2.6.4 Each bid shall contain the name of every person interested therein. If the Bidder is a corporation, partnership, sole proprietorship, or limited liability company, an officer, partner or principal of the Bidder, as applicable, shall print or type the legal name of the Bidder on the line provided and sign the Bid Form. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided and sign the Bid Form on behalf of that member. All signatures must be original.

2.6.5 Subject to the provisions of this paragraph IB 2.6, the completed Bid Form of the Bidder with whom the Tulalip Tribes of Washington executes a Contract Form shall be incorporated into the Contract Form as if fully rewritten therein.

2.7 REQUIRED SUBMITTALS WITH BID FORM

2.7.1 A Bidder shall be rejected as nonresponsive if the Bidder fails to submit the following submittals with the Bid Form in a sealed envelope:

2.7.1.1 If the Bid is restricted to certified Tulalip Tribal Member NAOBs or NAOBs, then Bidder shall submit evidence of certification from the Tulalip Tribes TERO office as being a certified NAOB for the identified NAOB category.

2.7.1.2 A Bid Guaranty as provided in paragraph IB 6.1.

2.7.1.3 A Power of Attorney of the agent signing for a Surety which is licensed in Washington, when a Bid Guaranty and Contract Bond is submitted.

2.7.1.4 Native American Owned Business Written Confirmation Documentation for each Tulalip Tribal Member NAOB and NAOB firm listed on the Bidder's Bid Form.

2.8 UNIT PRICES

2.8.1 When Unit Prices are requested on the Bid Form, the scheduled quantities listed are to be considered as approximate and are to be used only for the comparison of bids for purposes of award of the Contract and to determine the maximum quantity to be provided without a Change Order. If Unit Prices are stated to be sought only for informational purposes, they shall not be used for comparison of bids.

2.8.2 Unless otherwise specified in the Contract Documents, the Unit Prices set forth shall include all materials, equipment, labor, delivery, installation, overhead, profit and any other cost or expense, in connection with or incidental to, the performance of that portion of the Work to which the Unit Prices apply. The Bidder shall submit Unit Prices for all items listed unless other instructions are stated on the Bid Form.

2.8.3 Where there is a conflict between a Unit Price and the extension thereof made by the Bidder, the Unit Price shall govern and a corrected extension of such Unit Price shall be made and such corrected extension shall be used for the comparison of the bids and to determine the maximum quantity to be provided without a Change Order.

2.8.4 The Bidder agrees that the Tulalip Tribes of Washington may increase, decrease or delete entirely the scheduled quantities of Work to be done and materials to be furnished after execution of the Contract Form.

2.8.5 Payments, except for lump sum items in Unit Price Contracts, will be made to the Contractor only for the actual quantities of Work performed or materials furnished in accordance with the Contract Documents.

2.8.6 If the cost of an item for which a Unit Price is stated in the Contract changes substantially so that application of the Unit Price to the quantities of Work proposed will create an undue hardship on the Tulalip Tribes of Washington or the Contractor, the applicable Unit Price may be equitably adjusted by Change Order.

2.9 CHANGE IN THE BID AMOUNT

2.9.1 Any change to a previously submitted bid shall be made in writing and must be received by the Tulalip Tribes of Washington before the time scheduled for the bid opening, as determined by the employee or agent of the Tulalip Tribes of Washington designated to open the bids.

2.9.2 Changes shall provide an amount to be added or subtracted from the bid amount, so that the final bid amount can be determined only after the sealed envelope is opened.

2.9.3 If the Bidder's written instruction reveals the bid amount in any way prior to the bid opening, the bid shall not be opened or considered for award of a Contract.

2.10 COPIES OF THE DRAWINGS AND SPECIFICATIONS

2.10.1 The Contractor shall maintain at the Project site the permits and one (1) complete set of Drawings and Specifications approved by the Tribes, city, local or state building department having lawful jurisdiction over the project.

2.10.2 Unless otherwise specified in the Contract Documents, the Engineer, through the Construction Manager, shall furnish to the Contractor, free of charge, four (4) sets of Drawings and Specifications if the Contract price is $500,000 or less, and seven (7) sets of Drawings and Specifications if the Contract price is in excess of $500,000.

ARTICLE 3 – BID OPENING AND CONSIDERATION OF BIDS

3.1 DELIVERY OF BIDS

3.1.1 It is the responsibility of the Bidder to submit the bid to the Tulalip Tribes of Washington at the designated location prior to the time scheduled for bid opening.

3.1.2 If the bid envelope is enclosed in another envelope for the purpose of delivery, the exterior envelope shall be clearly marked as containing a bid with the Project name, the scope of Work or Contract and the date of the bid opening shown on the envelope.

3.1.3 No bid shall be considered if it arrives after the time set for the bid opening as determined by the employee or agent of the Tulalip Tribes of Washington designated to open the bids.

3.2 BID OPENING

3.2.1 Sealed bids will be received at the office designated in the Notice to Bidders until the time stated when all bids will be opened, read aloud and the tabulation made public.

3.2.2 The public opening and reading of bids is for informational purposes only and is not to be construed as an acceptance or rejection of any bid submitted.

3.2.3 The contents of the bid envelope shall be a public record and open for inspection, upon request, at any time after the bid opening.

3.3 BID OPENING EXTENSION

3.3.1 If any Addendum is issued within 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, the bid opening shall automatically be extended one (1) week, with no further advertising required.

3.4 BID EVALUATION CRITERIA

3.4.1 The Tulalip Tribes of Washington reserves the right to accept or reject any bid or bids and to award the Contract to any remaining Bidder the Tulalip Tribes of Washington determines to be the lowest responsive and responsible Bidder pursuant to paragraph IB 3.5.1 or the most responsive and responsible Bidder pursuant to paragraph IB 3.5.2 The Tulalip Tribes of Washington reserves the right to accept or reject any or all Alternates, in whole or in part, and the right to reject any Alternate or Alternates and to accept any remaining Alternate or Alternates. Alternates may be accepted or rejected in any order.

3.4.2 The Tulalip Tribes of Washington may reject the bid of any Bidder who has engaged in collusive bidding.

3.4.3 The Tulalip Tribes of Washington reserves the right to waive, or to allow any Bidder a reasonable opportunity to cure, a minor irregularity or technical deficiency in a bid, provided the irregularity or deficiency does not affect the bid amount or otherwise give the Bidder a competitive advantage. Noncompliance with any requirement of the Contract Documents may cause a Bidder to be rejected.

3.4.4 The Tulalip Tribes of Washington may reject all bids for one or more bid packages, prior to, during or after evaluation of Bidders pursuant to paragraph IB 3.5.8, and may advertise for other bids, using the original estimate or an amended estimate, for such time, in such form and in such newspapers as the Tulalip Tribes of Washington may determine.

3.5 BID EVALUATION PROCEDURE

3.5.1 The Contract will be awarded to the lowest responsive and responsible Bidder as determined in the discretion of the Tulalip Tribes of Washington, unless Bidders are advised during the bidding process award will be made pursuant to paragraph IB 3.5.2, or all bids will be rejected in accordance with applicable Tribal Ordinances or Codes.

3.5.1.1 In determining which Bidder is lowest responsive and responsible, the Tulalip Tribes of Washington shall consider the Base Bid, the bids for any Alternate or Alternates and the bids for any Unit Price or Unit Prices which the Tulalip Tribes of Washington determines to accept.

3.5.1.2 If the Request for Bid Proposal is not restricted to certified NAOB firms preference in the Bid Award will be given to the certified NAOB firm with the lowest responsive bid if that bid is within budgetary limits established for the project or activity for which the bids are being taken and no more than “X” higher than the bid prices of the lowest responsive bid from any certified non-NAOB bidder as set forth in The Tulalip Code, Chapter 9.05 – TERO Code paragraph 9.05.340 (3).

3.5.1.3 The total of the bids for accepted Alternate(s) and Unit Price(s) will be added to the Base Bid for the purpose of determining the lowest Bidder.

3.5.1.4 If two or more Bidders submit the same bid amount and are determined to be responsive and responsible, the Tulalip Tribes of Washington reserves the right to select one Bidder in the following manner:

3.5.1.4.1 If the Request for Bid Proposal is restricted to NAOB Firms and a majority of the funds used to pay the contract or subcontract are derived from Tulalip tribal resources preference shall be given to the certified Tulalip Tribal Member NAOB Firms; otherwise, selection shall be by lot in the presence of all such Bidders in such a manner as the Construction Manager shall determine and such selection shall be final.

3.5.1.4.2 If the Request for Bid Proposal is restricted to Tulalip Tribal Member Owned NAOB Firms selection shall be by lot in the presence of all such Bidders in such a manner as the Construction Manager shall determine and such selection shall be final.

3.5.1.4.3 If the Request for Bid Proposal is not restricted to NAOB Firms selection shall be by lot in the presence of all such Bidders in such a manner as the Construction Manager shall determine and such selection shall be final.

3.5.2 When listing "Preferred Employees" related to Section I – KEY EMPLOYEES OF BIDDER shall only list KEY "Preferred Employees" committed to be employed by Bidder in the performance of Bidder's self-performed scope of work.

3.5.2.1 Key Employees are employees who are in a top supervisory position or performs a critical function such that an employer would risk likely financial damage or loss if that task were assigned to a person unknown to the employer.

3.5.2.2 To be eligible for the award of points under this section Preferred Key Employees of Bidder shall be employed by the Bidder on the Project for 100% of the time the Bidder has crews on site performing work. Company owners are not eligible for the award of points under this section.

3.5.3 When listing "Preferred Employees" related to Section II – PREFERRED EMPLOYEES Bidder shall only list the number of "Preferred Employees" by each trade committed to be employed by Bidder in the performance of Bidder's self-performed scope of work.

3.5.3.1 To be eligible for the award of points under this section Preferred Employees shall be employed by the Bidder on the Project for a minimum of 80% of the time the Bidder has crews on site performing work. Company owners are not eligible for the award of points under this section.

3.5.4 Bidder shall not list the name of a "Preferred Employee" in more than one section. Should a "Preferred Employee" be listed in more than one section (i.e., Section I or II) the so named "Preferred Employee" will only be considered under Section I – KEY EMPLOYEES as a basis for award of points.

3.5.5 When listing lower tiered subcontractors and or suppliers related to Section IV – LIST OF LOWER TIERED SUBCONTRACTOR(S) AND OR SUPPLIER(S) Bidder shall identify the type of enterprise or organization Bidder intends to contract with in the columns titled “Type of Lower-Tier”. If Bidder intends to subcontract a certain portion of the work with a certified NAOB subcontractor, Bidder shall so designate by placing an “X” in the column titled “SUB” (abbreviated for subcontractor). If Bidder intends to purchase a certain portion of the work through a certified NAOB material supplier, Bidder shall so designate by placing an “X” in the column titled “SUP” (abbreviated for supplier). Bidder shall be awarded 100% of the value of the work subcontracted with a certified NAOB and ten-percent (10%) of the value of the work purchased through a certified NAOB material supplier in the determination of awarded points related to Section IV.

3.5.5.1 It is the expressed intent of paragraph IB 3.5.6 to encourage Bidders to contract with certified NAOB Firms in which the Bidder and enterprise or organization have no proprietary relationship (“Unrelated NAOB”). Points will only be awarded for contracting with Unrelated NAOB Firms.

3.5.5.2 In determining the award of points under paragraph IB 3.5.6, Lower tiered NAOB Firms shall have no proprietary relationship with other lower tiered NAOB Firms.

3.5.5.3 In determining the award of points under paragraph IB 3.5.6, equipment (unoperated) and tool rentals shall be considered as a supplier. Trucking (Dump, Low-boy, Long haul, etc.) and Operated Equipment Rental shall be considered as a subcontractor.

3.5.5.4 When Section IV – LIST OF LOWER TIERED SUBCONTRACTOR(S) AND OR SUPPLIER(S) is further defined by paragraph IB 1.1.7, which may include minimum requirements for contracting with Tulalip Tribal Member NAOB firms and NAOB firms, the provisions of paragraph IB 3.5.6 shall be applied to Tulalip Tribal Member NAOB and NAOB categories as defined by The Tulalip Code, Chapter 9.05 – TERO Code.

3.5.6 In determining whether a Bidder is responsible, factors to be considered include, without limitation:

3.5.6.1 Whether the Bidder’s bid responds to the Contract Documents in all material respects and contains no irregularities or deviations from the Contract Documents which would affect the amount of the bid or otherwise give the Bidder a competitive advantage.

3.5.6.2 Preference to Indians in hiring promotions, training and all other aspects of employment contracting and subcontracting;

3.5.6.3 Preferences required by Tribal Ordinances, Codes, or Laws;

3.5.6.4 The experience of the Bidder;

3.5.6.5 The financial condition of the Bidder;

3.5.6.6 The conduct and performance of the Bidder on previous contracts;

3.5.6.7 The facilities of the Bidder;

3.5.6.8 The management skills of the Bidder;

3.5.6.9 The ability of the Bidder to execute the Contract properly;

3.5.6.10 The evaluation of a bid below the median of other bids pursuant to paragraph IB 5.2.

3.5.6.11 Bidder's commitment to Safety and worker training.

3.5.7 The Construction Manager may obtain from the lowest or most responsive and responsible Bidder, as applicable, and such other Bidders as the Construction Manager determines to be appropriate any information appropriate to the consideration of factors showing responsibility, including without limitation the following:

3.5.7.1 The two most responsive and responsible bidders will be requested to submit further documentation for both TERO Preferred Employment and the Tulalip Tribal Member NAOB and NAOB Subcontractor and Suppliers utilization commitments listed on the Bidder's Bid Form.

3.5.7.1.1 Supplemental Documentation to be submitted to for each TERO Preferred Employee listed on the Bid Proposal Forms includes, but is not limited to:

3.5.7.1.1.1 Proof of Enrollment issued by a Federally Recognized Indian Tribe or Alaska Native Corporation; or

3.5.7.1.1.2 A signed letter issued by the Tulalip TERO Office certifying that the listed individuals are Preferred Employees.

3.5.7.1.1.3 Bidders shall provide a project staffing plan or a manpowered loaded schedule for the project identifying when the Preferred Employees will be employed on the project and the duration thereof.

3.5.7.1.2 Additional information to be submitted to for each NAOB listed on the Bid Form includes, but is not limited to:

3.5.8.1.2.1 Correct business name, federal employee identification number (if available), and mailing address.

3.5.7.1.2.2 List of all bid items assigned to each successful Tulalip Tribal Member NAOB or NAOB firm, including unit prices and extensions (if applicable).

3.5.7.1.2.3 Description of partial items (if any) to be sublet to each successful Tulalip Tribal Member NAOB or NAOB firm specifying the distinct elements of work to be performed by the Tulalip Tribal Member NAOB or NAOB firm and including the dollar value of the Tulalip Tribal Member NAOB or NAOB firm's portion.

3.5.7.1.2.4 Submit evidence of certification for the Tulalip Tribal Member NAOB or NAOB.

3.5.7.1.3 Total amounts shown for each Tulalip Tribal Member NAOB or NAOB firm shall not be less than the amount shown on the Bid Form. This submittal, showing the Tulalip Tribal Member NAOB or NAOB firm work item breakdown, when accepted by the Contracting Agency and resulting in contract execution, shall become a part of the contract. A breakdown that does not conform to the Tulalip Tribal Member NAOB or NAOB utilization certified on the Bid Form or that demonstrates a lesser amount of Tulalip Tribal Member NAOB or NAOB participation than that included on the Bid From will be returned for correction. The contract will not be executed by the Contracting Agency until a satisfactory breakdown has been submitted.

3.5.7.2 Overall experience of the Bidder, including number of years in business under present and former business names;

3.5.7.3 Complete listing of all ongoing and completed public and private construction projects of the Bidder in the last three years, including the nature and value of each contract and a name/address/phone number for each owner;

3.5.7.4 Complete listing of any public or private construction projects for which the Bidder has been declared in default; also, any EPA, OSHA, WISHA or other regulating entity issues or citations in the last ten (10) years;

3.5.7.5 Certified financial statement and bank references;

3.5.7.6 Description of relevant facilities of the Bidder;

3.5.7.7 Description of the management experience of the Bidder's project manager(s) and superintendent(s);

3.5.7.8 Complete list of subcontractors which the Bidder proposes to employ on the Project;

3.5.7.9 Current Washington Workers' Compensation Certificate or other similar type documentation supporting workers‟ compensation coverage;

3.5.7.10 Worker's Compensation Rating for current and previous 5 years; and

3.5.7.11 If the Bidder is a foreign corporation, i.e., not incorporated under the laws of Washington, a Certificate of Good Standing from the Secretary of State showing the right of the Bidder to do business in the State; or, if the Bidder is a person or partnership, the Bidder has filed with the Secretary of State a Power of Attorney designating the Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action brought under this Contract.

3.5.8 Each such Bidder's information shall be considered separately and not comparatively. If the lowest or most responsive Bidder, as applicable, is responsible, the Contract shall be awarded to such Bidder or all bids are rejected.

3.5.9 If the lowest or most responsive Bidder, as applicable, is not responsible, and all bids are not rejected, the Tulalip Tribes of Washington shall follow the procedure set forth in paragraph IB 3.5.8 with each next lowest or most responsive Bidder, as

applicable, until the Contract is awarded, all bids are rejected or all Bidders are determined to be not responsible unless award of the Contract was based upon a "Weight of Award" points system as defined in paragraph 3.5.2.

3.6 REJECTION OF BID BY THE TULALIP TRIBES OF WASHINGTON

3.6.1 If the lowest or most responsive Bidder, as applicable, is not responsible, the Tulalip Tribes of Washington shall reject such Bidder and notify the Bidder in writing by certified mail of the finding and the reasons for the finding.

3.6.2 A Bidder who is notified in accordance with paragraph IB 3.6.1 may object to such Bidder's rejection by filing a written protest which must be received by the Tulalip Tribes of Washington, through the Construction Manager, within five (5) days of the notification provided pursuant to paragraph IB 3.6.1.

3.6.3 Upon receipt of a timely protest, representatives of the Tulalip Tribes of Washington shall meet with the protesting Bidder to hear the Bidder's objections.

3.6.3.1 No award of the Contract shall become final until after the representatives of the Tulalip Tribes of Washington have met with all Bidders who have timely filed protests and the award of the Contract is affirmed by the Tulalip Tribes of Washington.

3.6.3.2 If all protests are rejected in the Tulalip Tribes of Washington's discretion the award of the Contract shall be affirmed by the Tulalip Tribes of Washington or all bids shall be rejected.

3.7 NOTICE OF INTENT TO AWARD

3.7.1 The Tulalip Tribes of Washington shall notify the apparent successful Bidder that upon satisfactory compliance with all conditions precedent for execution of the Contract Form, within the time specified, the Bidder will be awarded the Contract.

3.7.2 The Tulalip Tribes of Washington reserves the right to rescind any Notice of Intent to Award if the Tulalip Tribes of Washington determines the Notice of Intent to Award was issued in error.

ARTICLE 4 – WITHDRAWAL OF BID

4.1 WITHDRAWAL PRIOR TO BID OPENING

4.1.1 A Bidder may withdraw a bid after the bid has been received by the Tulalip Tribes of Washington, provided the Bidder makes a request in writing and the request is received by the Tulalip Tribes of Washington prior to the time of the bid opening, as determined by the employee or agent of the Tulalip Tribes of Washington designated to open bids.

4.2 WITHDRAWAL AFTER BID OPENING

4.2.1 All bids shall remain valid and open for acceptance for a period of, at least, 60 days after the bid opening; provided, however, that within two (2) business days after the bid opening, a Bidder may withdraw a bid from consideration if the bid amount was substantially lower than the amounts of other bids, provided the bid was submitted in good faith, and the reason for the bid amount being substantially lower was a clerical mistake, as opposed to a judgment mistake, and was actually due to an unintentional and substantial arithmetic error or an unintentional

omission of a substantial quantity of Work, labor or material made directly in the compilation of the bid amount.

4.2.1.1 Notice of a request to withdraw a bid must be made in writing filed with the Tulalip Tribes of Washington, through the Construction Manager, within two (2) business days after the bid opening.

4.2.1.2 No bid may be withdrawn under paragraph IB 4.2.1 when the result would be the awarding of the Contract on another bid to the same Bidder.

4.2.2 If a bid is withdrawn under paragraph IB 4.2.1, the Tulalip Tribes of Washington may award the Contract to another Bidder the Tulalip Tribes of Washington determines to be the next lowest or most responsive and responsible Bidder, as applicable, or reject all bids and advertise for other bids. If the Tulalip Tribes of Washington advertises for other bids, the withdrawing Bidder shall pay the costs, in connection with the rebidding, of printing new Contract Documents, required advertising and printing and mailing notices to prospective Bidders, if the Tulalip Tribes of Washington finds that such costs would not have been incurred but for such withdrawal.

4.2.3 A Bidder may withdraw the Bidder's bid at any time after the period described in paragraph IB 4.2.1 by written notice to the Tulalip Tribes of Washington.

4.3 REFUSAL BY TULALIP TRIBES OF WASHINGTON TO ACCEPT WITHDRAWAL

4.3.1 If the Tulalip Tribes of Washington intends to contest the right of a Bidder to withdraw a bid pursuant to paragraph IB 4.2.1, a hearing shall be held by one or more representatives of the Tulalip Tribes of Washington within ten (10) days after the bid opening and an order shall be issued by the Tulalip Tribes of Washington allowing or denying the claim of such right within five (5) days after such hearing is concluded. The Tulalip Tribes of Washington, through the Construction Manager, shall give the withdrawing Bidder timely notice of the time and place of any such hearing.

4.3.1.1 The Tulalip Tribes of Washington shall make a stenographic record of all testimony, other evidence, and rulings on the admissibility of evidence presented at the hearing. The Bidder shall pay the costs of the hearing.

4.4 REFUSAL BY BIDDER TO PERFORM

4.4.1 If the Tulalip Tribes of Washington denies the claim for withdrawal and the Bidder elects to appeal or otherwise refuses to perform the Contract, the Tulalip Tribes of Washington may reject all bids or award the Contract to the next lowest or most responsive and responsible Bidder, as applicable.

4.5 EFFECT OF WITHDRAWAL

4.5.1 No Bidder who is permitted, pursuant to paragraph IB 4.2.1, to withdraw a bid, shall for compensation supply any material or labor to, or perform any subcontract or other work agreement for, the person to whom the Contract is awarded or otherwise benefit, directly or indirectly, from the performance of the Project for which the withdrawn bid was submitted, without the written approval of the Tulalip Tribes of Washington.

4.5.2 The person to whom the Contract is awarded and the withdrawing Bidder shall be jointly liable to the Tulalip Tribes of Washington in an amount equal to any compensation paid to or for the benefit of the withdrawing Bidder without such approval.

ARTICLE 5 – BID ESTIMATE

5.1 BID TOTALS

5.1.1 No Contract shall be entered into if the price of the Contract, or if the Project involves multiple Contracts where the total price of all Contracts for the Project, is in excess of ten (10) percent above the entire estimate.

5.2 SUBSTANTIALLY LOW BID

5.2.1 No Bidder shall be responsible if the Bidder's bid is more than twenty (20) percent below the median of all higher bids received for a Contract where the estimate is $100,000 or more, and no Bidder shall be responsible if the Bidder's bid is more than twenty-five (25) percent below the median of all higher bids received for a Contract where the estimate is less than $100,000, unless the following procedures are followed.

5.2.1.1 The Construction Manager and the Engineer conduct an interview with the Bidder to determine what, if anything, has been overlooked in the bid, and to analyze the process planned by the Bidder to complete the Work. The Construction Manager and the Engineer shall submit a written summary of the interview to the Tulalip Tribes of Washington.

5.2.1.2 The Tulalip Tribes of Washington reviews and approves the Bidder's responsibility pursuant to paragraph IB 3.5.8.

5.2.1.3 The Construction Manager notifies the Bidder's Surety, if applicable, in writing that the Bidder with whom the Tulalip Tribes of Washington intends to enter a Contract submitted a bid determined to be substantially lower than the median of all higher bids.

ARTICLE 6 – BID GUARANTY AND CONTRACT BOND

6.1 BID GUARANTY

6.1.1 The Bidder must file with the bid a Bid Guaranty, payable to the Tulalip Tribes of Washington, in the form of either:

6.1.1.1 The signed Bid Guaranty and Contract Bond contained in the Contract Documents for the amount of the Base Bid plus add Alternates; or

6.1.1.2 The signed Bid Proposal Bond contained in the Contract Documents for the amount of the Base Bid plus add Alternates; or

6.1.1.3 A cashier's check in the amount of five (5) percent of the Base Bid plus add Alternates.

6.1.1.4 If Bidder elects to file with the bid a Bid Guaranty under paragraph IB 6.1.1.3 Bidder shall also file with the bid a signed Statement of Intended Surety contained in the Contract Documents.

6.1.2 The Bid Guaranty shall be in form and substance satisfactory to the Tulalip Tribes of Washington and shall serve as an assurance that the Bidder will, upon acceptance of the bid, comply with all conditions precedent for execution of the Contract Form, within the time specified in the Contract Documents. Any Bid Guaranty must be payable to the Tulalip Tribes of Washington.

6.1.3 If the blank line on the Bid Guaranty and Contract Bond or Bid Proposal Bond is not filled in, the penal sum will automatically be the full amount of the Base Bid plus add Alternates. If the blank line is filled in, the amount must not be less than the full amount of the Base Bid plus add Alternates, stated in dollars and cents. A percentage is not acceptable.

6.1.4 The Bid Guaranty and Contract Bond or Bid Proposal Bond must be signed by an authorized agent, with Power of Attorney, from the Surety. The Bid Guaranty and Contract Bond or Bid Proposal Bond must be issued by a Surety licensed to transact business in the State of Washington.

6.1.5 Bid Guaranties will be returned to all unsuccessful Bidders 90 days after the bid opening. If used, the cashier's check will be returned to the successful Bidder upon compliance with all conditions precedent for execution of the Contract Form.

6.2 FORFEITURE

6.2.1 If for any reason, other than as authorized by paragraph IB 4.2.1 or paragraph IB 6.3, the Bidder fails to execute the Contract Form, and the Tulalip Tribes of Washington awards the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, the Bidder who failed to enter into a Contract shall be liable to the Tulalip Tribes of Washington for the difference between such Bidder's bid and the bid of the next lowest or most responsible Bidder, as applicable, or for a penal sum not to exceed five (5) percent of the bid amount, whichever is less.

6.2.2 If the Tulalip Tribes of Washington then awards a Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, and such Bidder also fails or refuses to execute the Contract Form, the liability of such lowest or most responsive and responsible Bidder, as applicable, shall, except as provided in paragraph IB 6.3, be the amount of the difference between the bid amounts of such lowest or most responsible Bidder, as applicable, and another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, but not in excess of the liability specified in paragraph IB 6.2.1. Liability on account of an award to each succeeding lowest or most responsive and responsible Bidder, as applicable, shall be determined in like manner.

6.2.3 If the Tulalip Tribes of Washington does not award the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, but resubmits the Project for bidding, the Bidder failing to execute the Contract Form shall, except as provided in paragraph IB 6.3, be liable to the Tulalip Tribes of Washington for a penal sum not to exceed five (5) percent of such Bidder's bid amount or the costs in connection with the resubmission, of printing new Contract Documents, required advertising and printing and mailing notices to prospective Bidders, whichever is less.

6.3 EXCEPTION TO FORFEITURE

6.3.1 A Bidder for a Contract costing less than $500,000 may withdraw a bid from consideration if the Bidder's bid for some other Contract costing less than $500,000 has already been accepted, if the Bidder certifies in good faith that the

total price of all such Bidder's current contracts is less than $500,000, and if the Bidder's Surety, if applicable, certifies in good faith that the Bidder is unable to perform the subsequent contract because to perform such Contract would exceed the Bidder's bonding capacity.

6.3.2 If a bid is withdrawn pursuant to paragraph IB 6.3.1, the Tulalip Tribes of Washington may award the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, or reject all bids and resubmit the Project for bidding, and neither the withdrawing Bidder nor such Bidder's Surety, as applicable, shall be liable for the difference between the Bidder's bid and that of another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, for a penal sum, or for the costs of printing new Contract Documents, required advertising and printing and mailing notices to prospective Bidders.

6.4 CONTRACT BOND

6.4.1 If the Bidder executes the Contract Form, the Bidder shall, at the same time, provide a Bond meeting the requirements of the Contract Documents, unless the Bidder provided an acceptable Bid Guaranty and Contract Bond at the time of the bid opening. A "A- VII" or better Best Rated Surety Company shall issue the required bond.

6.4.2 The Bond shall be in the full amount of the Contract to indemnify the Tulalip Tribes of Washington against all direct and consequential damages suffered by failure of the Contractor to perform according to the provisions of the Contract and in accordance with the plans, details, specifications and bills of material therefore and to pay all lawful claims of Subcontractors, Material Suppliers, and laborers for labor performed or materials furnished in carrying forward, performing or completing the Contract.

6.4.3 The Bond shall be supported by a Power of Attorney of the agent signing for a Surety. The Bond shall be supported by a current and signed Certificate of Compliance or Certificate of Authority showing the Surety is licensed to do business in Washington.

6.5 NOT USED

ARTICLE 7 – CONTRACT AWARD AND EXECUTION

7.1 NONCOMPLIANCE WITH CONDITIONS PRECEDENT

7.1.1 The award of the Contract and the execution of the Contract Form are based upon the expectation that the lowest or most responsive and responsible Bidder, as applicable, will comply with all conditions precedent for execution of the Contract Form within ten (10) days of the date of the Notice of Intent to Award.

7.1.1.1 Noncompliance with the conditions precedent for execution of the Contract Form within ten (10) days of the date of the Notice of Intent to Award shall be cause for the Tulalip Tribes of Washington to cancel the Notice of Intent to Award for the Bidder's lack of responsibility and award the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder,

as applicable, or resubmit the Contract for bidding, at the discretion of the Tulalip Tribes of Washington.

7.1.1.2 The Tulalip Tribes of Washington may extend the time for submitting the conditions precedent for execution of the Contract Form for good cause shown. No extension shall operate as a waiver of the conditions precedent for execution of the Contract Form.

7.2 TIME LIMITS

7.2.1 The failure to award the Contract and to execute the Contract Form within 60 days of the bid opening invalidates the entire bid process and all bids submitted, unless the time is extended by written consent of the Bidder whose bid is accepted by the Tulalip Tribes of Washington and with respect to whom the Tulalip Tribes of Washington awards and executes a Contract.

7.2.1.1 If the Contract is awarded and the Contract Form is executed within 60 days of the bid opening, any increases in material, labor and subcontract costs shall be borne by the Bidder without alteration of the amount of the bid.

7.2.1.2 If the cause of the failure to execute the Contract within 60 days of the bid opening is due to matters for which the Tulalip Tribes of Washington is solely responsible, the Contractor shall be entitled to a Change Order authorizing payment of verifiable increased costs in materials, labor or subcontracts.

7.2.1.3 If the cause of the failure to execute the Contract within 60 days of the bid opening is due to matters for which the Contractor is responsible, no request for increased costs will be granted.

7.3 CONDITIONS PRECEDENT FOR EXECUTION OF CONTRACT FORM

7.3.1 Bond, if required. To support the Bond, a current and signed Certificate of Compliance or Certificate of Authority showing the Surety is licensed to do business in Washington;

7.3.2 Current Washington Workers' Compensation Certificate or other similar type documentation supporting workers‟ compensation coverage;

7.3.3 Certificate of Insurance (ISO general liability form CG 2010 11/85 edition or equivalent form is acceptable) and copy of additional insured endorsement. The certificate shall clearly state The Tulalip Tribes of Washington, Consolidated Borough of Quil Ceda Village, and the State of Washington are named as "Additional Insureds‟ to the General Liability, Automobile Liability, and Excess Liability Policies. Workers Compensation coverage includes a waiver of subrogation against the Tulalip Tribes of Washington and Consolidated Borough of Quil Ceda Village." The wording "endeavor to" and "but failure to" under CANCELLATION shall be stricken from the certificate. The Tulalip Tribes of Washington reserves the right to request a certified copy of the Contractor's insurance policies meeting the requirements of GC Article 12;

7.3.4 If the Bidder is a foreign corporation, i.e., not incorporated under the laws of Washington, a Certificate of Good Standing from the Secretary of State showing the right of the Bidder to do business in the State; or, if the Bidder is a person or partnership, the Bidder has filed with the Secretary of State a Power of Attorney

designating the Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action brought under this Contract;

7.3.5 Contractor signed Contract Form;

7.3.6 Completed and approved TERO Contracting and Subcontracting Compliance plan;

7.3.7 Current Tulalip Tribes Business License; and

7.3.8 Completed and signed Confidentiality Agreement.

7.4 NOTICE TO PROCEED AND SUBMITTALS

7.4.1 The Tulalip Tribes of Washington shall issue to the Contractor a Notice to Proceed, which shall establish the date for Contract Completion. The Contractor shall, within ten (10) days of the date of the Notice to Proceed, furnish the Construction Manager with the following submittals:

7.4.1.1 Contract Cost Breakdown;

7.4.1.2 Preliminary schedule of Shop Drawings and Submittals;

7.4.1.3 Outline of qualifications of the proposed superintendent; and

7.4.1.4 Acknowledgement by a TERO Representative the Project related TERO fee has been paid or an agreement has been reached to pay the fee in installments over the course of the Contract.

ARTICLE 8 – APPLICABLE LAW AND FORUM

8.1 FORUM FOR EQUITABLE RELIEF

8.1.1 The Tribal Court of the Tulalip Tribes of Washington shall have exclusive jurisdiction over any action or proceeding for any injunction or declaratory judgment concerning any agreement or performance under the Contract Documents or in connection with the Project. Any such action or proceeding arising out of or related in any way to the Contract or performance thereunder shall be brought only in the Tribal Court of the Tulalip Tribes of Washington and the Contractor irrevocably consents to such jurisdiction and venue. The Contract shall be governed by the law of the State of Washington.

8.2 FORUM FOR MONEY DAMAGES

8.2.1 The Tribal Court of the Tulalip Tribes of Washington shall be the exclusive jurisdiction for any action or proceeding for any injunction or declaratory judgment concerning any agreement or performance under the Contract Documents or in connection with the Project. The Tribal Court of the Tulalip Tribes of Washington shall be the exclusive jurisdiction for any action or proceeding by the Contractor or the Contractor's Surety, if applicable, for any money damages concerning any agreement or performance under the Contract Documents or in connection with the Project.

BID PROPOSAL FORM

Project Name: Hermosa Roads Date of Bid: _____

Location of Project: 42nd Drive NW, 78th Place NW, 79th Place NW, Shelton Gross Road, 76th Place NW, Totem Beach Road, and Water Works Road
Tulalip, WA 98271

COMPANY NAME OF BIDDER: _____

CERTIFIED NATIVE AMERICAN OWNED BUSINESS:

YES _____ If Yes, Percentage (%) of Indian Ownership: _____ **NO** _____

Having read and examined the Contract Documents, including without limitation the Drawings and Specifications, prepared by the Engineer and the Tulalip Tribes of Washington for the above-referenced Project, and the following Addenda:

ADDENDA ACKNOWLEDGED (Enter Addenda Number and Date of Addenda below):

1. _____ 2. _____
3. _____ 4. _____

The undersigned Bidder proposes to perform all Work for the applicable Contract, in accordance with the Contract Documents, for the following sums:

Tulalip Tribes Project No.: 2021-101-C Hermosa Roads

Refer to Division 0, TERO Code, and Special Provisions, Section 1-07.2 State Taxes, for application of TERO and Taxes.

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BID SCHEDULE

TULALIP TRIBES

HERMOSA ROADS

SCHEDULE OF PRICES

SCHEDULE A – Hermosa Roads

SCHEDULE B, C, AND D – Water System Improvements

(Work Within Tribal Reservation Boundary
Washington State Sales Tax Does Not Apply)

SCHEDULE A: HERMOSA ROADS						
ITEM NO.	**SECTION**	**ITEM DESCRIPTION**	**UNIT**	**APPROX. QTY.**	**UNIT PRICE DOLLAR CENTS**	**AMOUNT DOLLAR CENTS**
A-1	1-04.4(1)	MINOR CHANGE	CALC	1	$ 25,000	$ 25,000
A-2	1-05.4	ROADWAY SURVEYING	LS	1	$	$
A-3	1-05.4	ADA FEATURES SURVEYING	LS	1	$	$
A-4	1-05.4	LICENSED SURVEYING	EA	2	$	$
A-5	1-05.18	RECORD DRAWINGS ($2,000 MINIMUM BID)	LS	1	$	$
A-6	1-07.15(1)	SPCC PLAN	LS	1	$	$
A-7	1-07.17(1)	LOCATE EXISTING UTILITY STRUCTURE OR MONUMENT	LS	1	$	$
A-8	1-07.17(1)	POTHOLE EXISTING UTILITY	EA	20	$	$
A-9	1-09.6	NOXIOUS WEED REMOVAL	FA	1	$ 30,000	$ 30,000
A-10	1-09.6	RESOLUTION OF UTILITY CONFLICTS	FA	1	$ 15,000	$ 15,000
A-11	1-09.7	MOBILIZATION	LS	1	$	$
A-12	1-10.5	PROJECT TEMPORARY TRAFFIC CONTROL	LS	1	$	$
A-13	2-01.5	CLEARING AND GRUBBING	LS	1	$	$
A-14	2-02.5	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	$	$
A-15	2-02.5	REMOVAL OF DRAINAGE STRUCTURE	EA	1	$	$
A-16	2-03.5	ROADWAY EXCAVATION INCL. HAUL	CY	3,000	$	$
A-17	2-03.5	UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL	CY	700	$	$
A-18	2-03.5	GRAVEL BORROW INCL. HAUL	CY	560	$	$
A-19	2-09.5	SHORING OR EXTRA EXCAVATION CLASS B	SF	9,490	$	$
A-20	2-09.5	STRUCTURE EXCAVATION CLASS B INCL. HAUL	CY	1,400	$	$
A-21	4-04.5	CRUSHED SURFACING BASE COURSE	TN	2,400	$	$
A-22	4-04.5	CRUSHED SURFACING TOP COURSE	TN	70	$	$
A-23	5-04.5	HMA CL. 1/2 IN. PG 58H-22	TN	1,500	$	$
A-24	7-04.5	CORRUGATED POLYETHYLENE STORM SEWER PIPE 12 IN. DIAM.	LF	2,175	$	$
A-25	7-05.5	CONNECTION TO DRAINAGE STRUCTURE	EA	2	$	$
A-26	7-05.5	CATCH BASIN TYPE 1	EA	34	$	$
A-27	7-05.5	CATCH BASIN TYPE 1L	EA	1	$	$
A-28	7-05.5	CONCRETE INLET	EA	1	$	$
A-29	7-05.5	CATCH BASIN TYPE 2, 48 IN. DIAM	EA	1	$	$
A-30	7-05.5	ADJUST CATCH BASIN	EA	2	$	$

SCHEDULE A: HERMOSA ROADS						
ITEM NO.	**SECTION**	**ITEM DESCRIPTION**	**UNIT**	**APPROX. QTY.**	**UNIT PRICE DOLLAR CENTS**	**AMOUNT DOLLAR CENTS**
A-31	7-05.5	ADJUST MANHOLE	EA	5	$	$
A-32	7-05.5	STORMWATER TREATMENT MANHOLE #1	EA	1	$	$
A-33	7-05.5	STORMWATER TREATMENT MANHOLE #2	EA	1	$	$
A-34	7-17.5	PVC SANITARY SEWER PIPE 6 IN. DIAM	LF	48	$	$
A-35	8-01.5	EROSION CONTROL AND WATER POLLUTION PREVENTION	LS	1	$	$
A-36	8-02.5	ROADSIDE RESTORATION	LS	1	$	$
A-37	8-02.5	SEEDING, FERTILIZING AND MULCHING	ACRE	2	$	$
A-38	8-02.5	TOPSOIL TYPE A	SY	9,140	$	$
A-39	8-04.5	CEMENT CONC. TRAFFIC CURB AND GUTTER	LF	1,317	$	$
A-40	8-04.5	CEMENT CONC. PEDESTRIAN CURB	LF	100	$	$
A-41	8-06.5	CEMENT CONC. DRIVEWAY ENTRANCE	SY	59	$	$
A-42	8-13.5	ADJUST MONUMENT CASE AND COVER	EA	1	$	$
A-43	8-14.5	CEMENT CONC. SIDEWALK	SY	244	$	$
A-44	8-14.5	CEMENT CONC. CURB RAMP TYPE PARALLEL B	EA	4	$	$
A-45	8-14.5	DETECTABLE WARNING SURFACE	SF	40	$	$
A-46	8-18.5	MAILBOX SUPPORT, TYPE 1	EA	2	$	$
A-47	8-18.5	MAILBOX SUPPORT, TYPE 2	EA	1	$	$
A-48	8-21.5	PERMANENT SIGNING	LS	1	$	$
A-49	8-22.5	PLASTIC STOP LINE	LF	30	$	$
A-50	8-22.5	PLASTIC CROSSWALK LINE	SF	200	$	$
				Subtotal:	**$**	
				TERO (1.75%):	**$**	
				TOTAL SCHEDULE A (Including TERO):	**$**	

SCHEDULE B: WATER SYSTEM IMPROVEMENTS						
ITEM NO.	**SECTION**	**ITEM DESCRIPTION**	**UNIT**	**APPROX. QTY.**	**UNIT PRICE DOLLAR CENTS**	**AMOUNT DOLLAR CENTS**
B-1	01025B	MOBILIZATION	LS	1	$	$
B-2	1-05.18	RECORD DRAWINGS ($1,000 MINIMUM BID)	LS	1	$	$
B-3	01025B	FURNISH AND INSTALL 8-INCH PVC WATER MAIN	LF	730	$	$
B-4	01025B	FURNISH AND INSTALL 6-INCH PVC WATER MAIN	LF	2,480	$	$
B-5	01025B	FURNISH AND INSTALL 8-INCH GATE VALVE	EA	9	$	$
B-6	01025B	FURNISH AND INSTALL 6-INCH GATE VALVE	EA	10	$	$
B-7	01025B	FURNISH AND INSTALL STANDARD FIRE HYDRANT ASSEMBLY	EA	4	$	$
B-8	01025B	CONNECTION TO EXISTING WATER SYSTEM	EA	4	$	$
B-9	01025B	FURNISH AND INSTALL DI FITTINGS	EA	35	$	$
B-10	01025B	RECONNECT EXISTING WATER SERVICE WITH EXISTING METER	EA	9	$	$
B-11	01025B	RECONNECT EXISTING WATER SERVICE WITHOUT EXISTING METER	EA	16	$	$
B-12	01025B	PROVIDE 1-INCH WATER SERVICE LINE TO VACANT LOT	EA	4	$	$
B-13	01025B	PROVIDE 2-INCH WATER SERVICE LINE TO TWO VACANT LOTS	EA	7	$	$
B-14	01025B	TRENCH EXCAVATION SAFETY SYSTEM (OVER 4 FEET)	LS	1	$	$
B-15	01025B	COMPACTION TESTS	EA	36	$	$
B-16	01025B	CRUSHED ROCK	TN	1,100	$	$
B-17	01025B	IMPORTED GRAVEL BORROW	TN	1,500	$	$
B-18	01025B	MINOR CHANGE	CALC	1	$ 25,000	$ 25,000
				Subtotal:	**$**	
				TERO (1.75%):	**$**	
				TOTAL SCHEDULE B (Including TERO):	**$**	

SCHEDULE C: WATER SYSTEM IMPROVEMENTS						
ITEM NO.	**SECTION**	**ITEM DESCRIPTION**	**UNIT**	**APPROX. QTY.**	**UNIT PRICE DOLLAR CENTS**	**AMOUNT DOLLAR CENTS**
C-1	01025C	MOBILIZATION	LS	1	$	$
C-2	1-05.18	RECORD DRAWINGS ($1,000 MINIMUM BID)	LS	1	$	$
C-3	01025C	FURNISH AND INSTALL 10-INCH PVC WATER MAIN	LF	1,600	$	$
C-4	01025C	FURNISH AND INSTALL 8-INCH PVC WATER MAIN	LF	80	$	$
C-5	01025C	FURNISH AND INSTALL 6-INCH PVC WATER MAIN	LF	90	$	$
C-6	01025C	FURNISH AND INSTALL 10-INCH GATE VALVE	EA	11	$	$
C-7	01025C	FURNISH AND INSTALL 8-INCH GATE VALVE	EA	4	$	$
C-8	01025C	FURNISH AND INSTALL 6-INCH GATE VALVE	EA	4	$	$
C-9	01025C	FURNISH AND INSTALL STANDARD FIRE HYDRANT ASSEMBLY	EA	4	$	$
C-10	01025C	CONNECTION TO EXISTING WATER SYSTEM	EA	13	$	$
C-11	01025C	FURNISH AND INSTALL DI FITTINGS	EA	70	$	$
C-12	01025C	RECONNECT TO EXISTING PRV STATION	EA	1	$	$
C-13	01025C	TWO (2)-INCH WATER SERVICE TO FISHERIES BUILDINGS	LS	1	$	$
C-14	01025C	TRENCH EXCAVATION SAFETY SYSTEM (OVER 4 FEET)	LS	1	$	$
C-15	01025C	TEMPORARY TRAFFIC CONTROL	LS	1	$	$
C-16	01025C	TEMPORARY EROSION CONTROL	LS	1	$	$
C-17	01025C	CEMENT CONCRETE TRAFFIC CURB AND GUTTER	LF	40	$	$
C-18	01025C	CEMENT CONCRETE SIDEWALK	SY	18	$	$
C-19	01025C	CEMENT CONCRETE CURB RAMP	EA	3	$	$
C-20	01025C	CEMENT CONCRETE DRIVEWAY ENTRANCE	SY	4	$	$
C-21	01025C	CRUSHED ROCK	TN	900	$	$
C-22	01025C	IMPORTED GRAVEL BORROW	TN	800	$	$
C-23	01025C	HMA CL 1/2 IN PG58H-22	TN	360	$	$
C-24	01025C	COMPACTION TESTS	EA	20	$	$
C-25	01025C	SPPC PLAN	LS	1	$	$
C-26	01025C	MINOR CHANGE	CALC	1	$ 25,000	$ 25,000
				Subtotal:	**$**	
				TERO (1.75%):	**$**	
				TOTAL SCHEDULE C (Including TERO):	**$**	

SCHEDULE D: WATER SYSTEM IMPROVEMENTS						
ITEM NO.	SECTION	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
D-1	01025D	MOBILIZATION	LS	1	$	$
D-2	1-05.18	RECORD DRAWINGS ($1,000 MINIMUM BID)	LS	1	$	$
D-3	01025D	FURNISH AND INSTALL 10-INCH PVC WATER MAIN	LF	800	$	$
D-4	01025D	FURNISH AND INSTALL 8-INCH PVC WATER MAIN	LF	20	$	$
D-5	01025D	FURNISH AND INSTALL 10-INCH GATE VALVE	EA	5	$	$
D-6	01025D	FURNISH AND INSTALL 8-INCH GATE VALVE	EA	1	$	$
D-7	01025D	CONNECTION TO EXISTING WATER SYSTEM	EA	4	$	$
D-8	01025D	FURNISH AND INSTALL DI FITTINGS	EA	20	$	$
D-9	01025D	RECONNECT EXISTING 2-INCH WATER SERVICE	EA	1	$	$
D-10	01025D	RECONNECT EXISTING 1-INCH WATER SERVICE	EA	2	$	$
D-11	01025D	TRENCH EXCAVATION SAFETY SYSTEM (OVER 4 FEET)	LS	1	$	$
D-12	01025D	TEMPORARY TRAFFIC CONTROL	LS	1	$	$
D-13	01025D	TEMPORARY EROSION CONTROL	LS	1	$	$
D-14	01025D	CRUSHED ROCK	TN	400	$	$
D-15	01025D	IMPORTED GRAVEL BORROW	TN	360	$	$
D-16	01025D	HMA CL 1/2 IN PG58H-22	TN	170	$	$
D-17	01025D	COMPACTION TESTS	EA	10	$	$
D-18	01025D	SPPC PLAN	LS	1	$	$
D-19	01025D	MINOR CHANGE	CALC	1	$ 25,000	$ 25,000
				Subtotal:	**$**	
				TERO (1.75%):	**$**	
				TOTAL SCHEDULE D (Including TERO):	**$**	

BID SUMMARY

Schedule A Total (including 1.75% TERO):	**$**
Schedule B Total (including 1.75% TERO):	**$**
Schedule C Total (including 1.75% TERO):	**$**
Schedule D Total (including 1.75% TERO):	**$**
TOTAL Schedule A + Schedule B + Schedule C + Schedule D:	**$**

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TRENCH EXCAVATION SAFETY PROVISIONS: If contracted work contains any work that requires trenching exceeding a depth of four (4) feet, all costs for trench safety shall be included in the Base Bid amount for adequate trench safety systems in compliance with Chapter 39.04 RCW and WAC 296-155-650. The purpose of this provision is to ensure that the bidder agrees to comply with all the relevant trench safety requirements of Chapter 49.17 RCW. This bid amount shall be considered as part of the total Base Bid amount set forth above.

The following items shall also be considered in the review and award of this Contact. Bidder shall complete each section as applicable. By submission of this bid proposal, Bidder acknowledges their commitment to employ and or contract work to the parties identified below during the performance of Bidder's awarded Work.

SECTION I – KEY EMPLOYEES OF BIDDER (if required, attach additional sheets if needed)

		PREFERRED EMPLOYEE	
NAME	**POSITION**	**Yes**	**No**
1.	1.		
2.	2.		
3.	3.		
4.	4.		
5.	5.		

SECTION II – PREFERRED "TRADE" EMPLOYEES (if required, attach additional sheets if needed)

NUMBER OF PREFERRED "TRADE" EMPLOYEES	NUMBER OF PREFERRED "TRADE" EMPLOYEES
1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

SECTION III – PEAK WORK FORCE OF ALL EMPLOYEES ANTICIPATED TO BE EMPLOYED BY BIDDER AT THE PROJECT SITE IN THE PERFORMANCE OF THE WORK:

_____
(Insert Number of Employees)

SECTION IV – LIST OF LOWER TIERED SUBCONTRACTOR(S) AND OR SUPPLIER(S)
(Total of Sections IV.A and IV.B)

SECTION IV A – LIST OF TULALIP TRIBAL MEMBER NAOB SUBCONTRACTOR(S) AND OR SUPPLIER(S) (if required, attach additional sheets if needed)

			TYPE OF LOWER-TIER		TULALIP NAOB	
NAME OF SUBCONTRACTOR (SUB) OR SUPPLIER (SUP)	TYPE OF WORK TO BE AWARDED	DOLLAR VALUE OF WORK	SUB	SUP	Yes	No
1.	1.	$				
2.	2.	$				
3.	3.	$				
4.	4.	$				
5.	5.	$				
6.	6.	$				
7.	7.	$				
8.	8.	$				
9.	9.	$				
10.	10.	$				

SECTION IV B – LIST OF NAOB SUBCONTRACTOR(S) AND OR SUPPLIER(S) (if required, attach additional sheets if needed)

			TYPE OF LOWER-TIER		NAOB	
NAME OF SUBCONTRACTOR (SUB) OR SUPPLIER (SUP)	TYPE OF WORK TO BE AWARDED	DOLLAR VALUE OF WORK	SUB	SUP	Yes	No
1.	1.	$				
2.	2.	$				
3.	3.	$				
4.	4.	$				
5.	5.	$				
6.	6.	$				
7.	7.	$				
8.	8.	$				
9.	9.	$				
10.	10.	$				

Should Contractor fail to comply, to the fullest extent possible, with provisions for employment and or contracting as defined in The Tulalip Code, Chapter 9.05 – TERO Code, Contractor may be found to be in breach of Contract. If it is determined that a breach has occurred, Contractor acknowledges that said breach will be grounds to terminate Contractor's Contract agreement without claim against The Tulalip Tribes of Washington or the Project for any additional compensation and or consideration.

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BIDDER'S CERTIFICATION

The Bidder hereby acknowledges that the following representations in this bid are material and not mere recitals:

1. The Bidder has read and understands the Contract Documents and agrees to comply with all requirements of the Contract Documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.
2. The Bidder represents that the bid is based upon the Standards specified by the Contract Documents.
3. The Bidder acknowledges that all Work shall be completed within the time established in the Contract Documents, and that each applicable portion of the Work shall be completed upon the respective milestone completion dates, unless an extension of time is granted in accordance with the Contract Documents. The Bidder understands that the award of separate contracts for the Project will require sequential, coordinated and interrelated operations which may involve interference, disruption, hindrance or delay in the progress of the Bidder's Work. The Bidder agrees that the Contract price, as amended from time to time by Change Order, shall cover all amounts due from the Tulalip Tribes of Washington resulting from interference, disruption, hindrance or delay caused by or between Contractors or their agents and employees.
4. The Bidder has visited the Project site, become familiar with local conditions and has correlated personal observations with the requirements of the Contract Documents. The Bidder has no outstanding questions regarding the interpretation or clarification of the Contract Documents.
5. The Bidder agrees to comply with The Tulalip Code, Chapter 9.05 – TERO Code and give preference to Indians in hiring promotions, training and all other aspects of employment contracting and subcontracting.
6. The Bidder agrees to comply with The Tulalip Code, Chapter 9.05 – TERO Code and give preference to certified Indian-owned enterprises and organizations in the award of contracts and subcontracts.
7. The Bidder and each person signing on behalf of the Bidder certifies, and in the case of a joint or combined bid, each party thereto certifies as to such party's entity, under penalty of perjury, that to the best of the undersigned's knowledge and belief: (a) the Base Bid, any Unit Prices and any Alternate Bid in the bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Prices or Alternate bid with any other Bidder; (b) unless otherwise required by law, the Base Bid, any Unit Prices and any Alternate bid in the bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Prices or Alternate bid; (c) no attempt has been made or will be made by the Bidder to induce any other individual, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
8. The Bidder will execute the Contract Form with the Tulalip Tribes of Washington, if a Contract is awarded on the basis of this bid, and if the Bidder does not execute the Contract Form for

any reason, other than as authorized by law, the Bidder and the Bidder's Surety are liable to the Tulalip Tribes of Washington as provided in Article 6 of the Instructions to Bidders.

9. Bidder agrees to furnish any information requested by the Tulalip Tribes of Washington to evaluate the responsibility of the Bidder.

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NON - COLLUSION DECLARATION

Failure to return this Declaration as part of the bid proposal package will make the bid nonresponsive and ineligible for award.

NON-COLLUSION DECLARATION

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

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

NOTICE TO ALL BIDDERS

To report rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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The Tulalip Tribes of Washington

Any modification made to either the bid form or exception taken to the defined scope of work outlined in this bid package may result in the bid proposal being considered non-responsive.

Each bid shall contain the name of every person interested therein. If the Bidder is a corporation, partnership, sole proprietorship, or limited liability corporation, an officer, partner or principal of the Bidder, as applicable, shall print or type the legal name of the Bidder on the line provided and sign the Bid Form. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided and signs the Bid Form. An unsigned Bid Form will render the Bid as non-responsive.

BIDDER'S NAME (PRINT): _____

Authorized Signature: _____

Title: _____

Company Name: _____

Mailing Address: _____

_____

Telephone Number: (_____) _____ Facsimile Number (_____) _____

Where Incorporated: _____

Type of Business (circle one): corporation partnership sole proprietorship limited liability corporation

The Tulalip Tribes Business License Number: _____

State of Washington Contractor's License Number: _____

Federal ID Number: _____

Contact Person for Contract processing: _____

BIDDER'S NAME (PRINT): _____

Authorized Signature: _____

Title: _____

Company Name: _____

Mailing Address: _____

_____

Telephone Number: (_____) _____ Facsimile Number (_____) _____

Where Incorporated: _____

Type of Business (circle one): corporation partnership sole proprietorship limited liability corporation

The Tulalip Tribes Business License Number: _____

State of Washington Contractor's License Number: _____

Federal ID Number: _____

Contact Person for Contract processing: _____

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SUB-CONTRACTORS OR SUPPLIERS

Native American TERO Certified Businesses that are qualified and come within 10% of the low bid, will be provided negotiated preference.

IN DATE ORDER, ALL SUB-CONTRACTORS WILL NEED A COMPLIANCE PLAN

Company	Contact Person	Phone	Native	Sub or Supplier

JOB ORDER

If the TERO jobs skills bank has qualified persons, they are required to receive preference in hiring to comply with the TERO law.

Job Title	Number of Positions	Rate of Pay	Date from / to

Foreman to contact / cell:

I declare that all the answers and statements are true, correct and complete to the best of my knowledge. I understand that untruthful or misleading answers are cause for denial of my application and/or revocation of any certification granted.

Print Name	Signature	Title	Date

~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ *Office use only* ~~~~~~~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~

				Yes	NO
Recommended by	Date	Managers Signature	Date	Approved	
Notes:					
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Washington State Department of Transportation

Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

To Be Submitted with the Bid Proposal

Project Name _____

Failure to list subcontractors with whom the bidder, if awarded the contract, will directly subcontract for performance of the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical, as described in Chapter 19.28 RCW or naming more than one subcontractor to perform the same work will result in your bid being non-responsive and therefore void.

Subcontractor(s) with whom the bidder will directly subcontract that are proposed to perform the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW **must** be listed below. The work to be performed is to be listed below the subcontractor(s) name.

To the extent the Project includes one or more categories of work referenced in RCW 39.30.060, and no subcontractor is listed below to perform such work, the bidder certifies that the work will either (i) be performed by the bidder itself, or (ii) be performed by a lower tier subcontractor who will not contract directly with the bidder.

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

* Bidder's are notified that is the opinion of the enforcement agency that PVC or metal conduit, junction boxes, etc, are considered electrical equipment and therefore considered part of electrical work, even if the installation is for future use and no wiring or electrical current is connected during the project.

SR

DOT Form 271-015 EF
Revised 08/2012

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NAOB Written Confirmation

Native American Owned Business (NAOB) Written Confirmation Document

As an authorized representative of the Native American Owned Business (NAOB), I confirm that we have been contacted by the referenced bidder with regard to the referenced project and if the bidder is awarded the contract we will enter into an agreement with the bidder to participate in the project consistent with the information provided on the bidder's Bid Proposal Form, Section IV.

Contract Title: _____

Bidder's Business Name: _____

NAOB's Business Name: _____

NAOB Signature: _____

NAOB's Representative _____

Name and Title: _____

Date: _____

The entries must be consistent with what is shown on the bidder's Bid Proposal Form, Section IV. Failure to do so will result in bid rejection. See Instructions to Bidders Section 1.1.7; *Minimum TERO Participation for Subcontractors.*

Description of Work: _____

Amount to be Awarded to NAOB: _____

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The Tulalip Tribes of Washington

FORM OF BID GUARANTY & CONTRACT BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned _____ as Principal at _____, (Address) _____ and _____ as Surety, are hereby held and firmly bound unto the Tulalip Tribes of Washington, herein referred to as Tulalip Tribes, in the penal sum of the dollar amount of the bid submitted by the Principal to the Tulalip Tribes on (date) _____, ____ to undertake the Project known as: _____.

The penal sum, referred to herein, shall be the dollar amount of the Principal's bid to the Tulalip Tribes, incorporating any additive or deductive alternate bids or any additive or deductive allowance bids made by the Principal on the date referred to above to the Tulalip Tribes, which are accepted by the Tulalip Tribes. In no case shall the penal sum exceed the amount of dollars ($_____). (If the above line is left blank, the penal sum will be the full amount of the Principal's bid, including alternates and unit prices. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including alternates and allowances, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a bid on the above-referred to project;

NOW, THEREFORE, if the Tulalip Tribes accept the bid of the Principal, and the Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications and bills of material; and in the event the Principal pays to the Tulalip Tribes the difference not to exceed five percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Tulalip Tribes may in good faith contract with the next lowest bidder to perform the work covered by the bid; or resubmits the project for bidding, the Principal will pay the Tulalip Tribes the difference not to exceed five percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect. If the Tulalip Tribes accept the bid of the Principal, and the Principal, within ten days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details, specifications and bills of material, which said contract is made a part of this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every condition of such contract; and indemnify the Tulalip Tribes against all damage suffered by failure to perform such contract according to the provisions thereof and in accordance with the plans, details, specifications and bills of material therefore; and shall pay all lawful claims of subcontractors, material suppliers and laborers for labor performed and materials furnished in the carrying forward, performing or completing of said contract; we, agreeing and assenting to, at this undertaking shall be for the benefit of any material supplier or laborer having a just claim, as well as for the Tulalip Tribes herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the

Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions or additions, in or to the terms of said contract or in or to the plans and specifications, therefore, shall in any wise affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

SIGNED this _____ day of _____, _____

PRINCIPAL:

_____

By: _____

Title: _____

SURETY:

_____

Address: _____

_____

Phone: (____) _____

By: _____

Attorney-in-Fact

SURETY AGENT:

_____

Address: _____

Phone: (____) _____

The Tulalip Tribes of Washington

STATEMENT OF INTENDED SURETY

(Required if Bid Deposit is NOT a Surety Bond)

FURNISH WITH BIDDER'S SEALED BID a written statement prepared and signed by Bidder's intended sureties or surety company, to the effect that: _____ (Name of Surety), who meets the requirements of Chapter 48.28 RCW, will promptly provide a surety bond in the amount of 100% of the base bid in the event _____ (Bidder's Name) is awarded a Contract for _____ (Project Description) and that the proposed Construction Contract is acceptable to the Surety.

Surety:

Signature of Authorized Representative

Printed Name / Title of Authorized Representative

This statement, if required, must be included in Bidder's sealed bid for Bidder's Bid to be considered.

_____

By: _____

Title: _____

SURETY:

_____

Address: _____

_____

Phone: (____) _____

By: _____

Attorney-in-Fact

SURETY AGENT:

_____

Address: _____

Phone: (____) _____

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The Tulalip Tribes of Washington

BID PROPOSAL BOND

KNOW ALL BY THESE PRESENTS, that (Name of Bidder) _____ a corporation, partnership, or individual) duly organized under the laws of the State of _____ as principal, and (Name of Surety) _____ a corporation duly organized under the laws of the State of _____ and authorized to do business in the State of Washington, as surety, are held and firmly bound unto The Tulalip Tribes of Washington in the full and penal sum of five (5) percent of the total amount of the bid proposal of said principal for the work hereinafter described for the payment of which, well and truly to be made, we bind our heirs, executors, administrators and assigns, and successors and assigns, firmly by these presents.

_____

_____

Said bid and proposal, by reference hereto, being made a part hereof.

NOW, THEREFORE, if the said proposal bid by said principal be accepted, and the contract be awarded to said principal, and if said principal shall duly make and enter into and execute said contract and shall furnish a performance, payment and warranty bond as required by The Tulalip Tribes of Washington within a period of ten (10) days from and after said award, exclusive of the day of such award, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

IN TESTIMONY WHEREOF, the principal and surety have caused these presents to be signed and sealed this _____ day of _____, 20_____.

Principal _____

(Name) _____

(Address) _____

_____

By _____

(Signature of Authorized Rep)

_____

(Typed Name of Authorized Rep)

Title _____

SURETY

Name _____

By _____

(Attorney-in-fact for Surety)

_____

_____

(Name & Address of local Office or Agent)

*This bond must be accompanied by a fully executed Power of Attorney appointing the attorney-in-fact.

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AIA® Document A312™ – 2010

Payment Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)

CONSTRUCTION CONTRACT
Date:

Amount:

Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: ☐ None ☐ See Section 18

CONTRACTOR AS PRINCIPAL
Company: *(Corporate Seal)*

Signature: _____
Name and Title:

SURETY
Company: *(Corporate Seal)*

Signature: _____
Name and Title:

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)
AGENT or **BROKER:**

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

.2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- **.1** the name of the Claimant;
- **.2** the name of the person for whom the labor was done, or materials or equipment furnished;
- **.3** a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- **.4** a brief description of the labor, materials or equipment furnished;
- **.5** the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- **.6** the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- **.7** the total amount of previous payments received by the Claimant; and
- **.8** the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address		Address	

AIA® Document A312™ – 2010

Performance Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)

CONSTRUCTION CONTRACT
Date:

Amount:

Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: ☐ None ☐ See Section 16

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or **BROKER:**

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

.1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

.2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and

.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address		Address	

TRIBAL EMPLOYMENT RIGHTS OFFICE (TERO)

TULALIP TERO MISSION STATEMENT

The Tulalip TERO has a mission to help improve the quality of life for Tulalip Tribal members and other Native American families through opportunities that can assist them in pursuing quality jobs or careers with decent wages and by protecting their rights of preferential employment, training, business and economic opportunities on and near the Tulalip Reservation. Also, to assist business in achieving compliance with hiring Native American qualified workers.

Information
6404 Marine Drive, Tulalip, WA 98271
Office: (360) 716-4747
Fax: (360) 716-0612
Alternate Fax: (360) 716-0249

Driving Direction From Seattle:
Go North on highway I-5. At exit 199, turn RIGHT onto Ramp and turn LEFT (West) onto SR-528 [4th St]. Road name changes to Marine Dr. NE. Turn RIGHT (North-East) onto 64th Street NW.

Driving Direction From Mount Vernon:
Go South on highway I-5. At exit 199, turn RIGHT onto Ramp and bear RIGHT (West) onto Marine Dr. NE. Turn RIGHT (North-East) onto 64th Street NW.

On June 20, 2012, the Tulalip Tribes board of Directors enacted the Tribal Employment Rights Office Code which is the preferential employment and contracting laws of the land within the boundaries of the Tulalip Reservation.

Tulalip TERO office requires businesses to:

- Hire TERO qualified and certified workers;
- Give Native owned businesses the opportunity to bid;
- Fill out and negotiate a compliance plan prior to commencing work; and
- Pay 1.75% TERO fee on all construction projects over $10,000

FREQUENTLY ASKED QUESTIONS

The following presents a list of the most frequently asked questions and inquiries about Native American Preference and Tribal Employment Rights Office (TERO).

1. *WHAT IS THE PURPOSE OF TERO?*

   To access more employment & training opportunities for Native Americans and their families. To provide more business & economic opportunities for businesses owned by Native Americans.

2. *WHY IS THERE A NEED FOR TERO?*

   Since unemployment rate in Native communities remains high, Tribes must take strong actions to protect the employment rights of Native American people.

3. *WHAT ARE THE BASIC REQUIREMENTS OF TERO?*

   All employers operating within tribal jurisdiction are required to provide Indian preference in employment, training, contracting, and subcontracting. Following are the major provisions and requirements found in most TERO Codes that employers must adhere too:

   A. To ensure Native preference, employers need to submit and negotiate a detailed compliance plan of employer workforce needs with a TERO Compliance Officer.

   B. To utilize the TERO skills banks for all referrals and consider Native applicants before interviewing or hiring any Non-Native worker.

   C. To negotiate with the TERO Compliance Officer(s) the specific number of Natives in each job classification and to cooperate with tribal training programs to hire a certain number of trainees.

   D. To eliminate all extraneous job qualification criteria or personnel requirements which may act as a barrier to Native employment. TEROs are guided by EEOC guidelines for verifying legitimate Bona-fide Occupational Qualifications (BFOQ's).

   E. To keep in contact with the TERO office in order to resolve any employee problems and issues.

   F. To acknowledge and respect tribal religious beliefs and cultural difference and to cooperate with TERO to provide reasonable accommodations.

   G. All employers who have collective bargaining agreements with one or more unions must secure a written agreement from their unions indicating that they will comply with TERO.

   H. The TERO certified worker shall be treated the same as the other employees. There will be a Zero tolerance to discrimination within the boundaries of the Tulalip Reservation.

The success of TERO programs can be directly attributed to the fact that these programs embody all of the critical elements listed above.

4. *WHAT IS A COMPLIANCE PLAN?*

   A Compliance Plan is a written document that provides detailed descriptions of a construction project with all the pertinent information. This is where you list your key personnel and your work force needs. A Key employee is a permanent employee who is in a supervisory or specialized position and without this person an employer would face a financial loss. This document is then negotiated with a TERO Compliance Officer for approval.

5. *WHAT TERO REQUIREMENTS ARE THERE IN CONTRACTING BIDS?*

   The TERO Office has a Native American Owned Business Registry (NAOB) in which TERO certifies that the companies are owned by Native Americans. The TERO Code requires that Contractors and or Subcontractors provide opportunities to every NAOB that is qualified to do the work.

6. *IS THERE A DIFFERENCE BETWEEN TRIBAL AND NATIVE AMERICAN PREFERENCE?*

   Yes, on Tribally funded projects TERO can require Tribal member preference. This is permissible under Federal law because tribes are exempt from Title VII of the Civil Rights

Act, Executive Order 11246 and most other employment rights legislation. Native American preference is permissible under some federal laws i.e., Indian Self Determination Act, Buy Indian Act and under most federal laws.

7. *WHAT IS THE EXTENT OF TERO JURISDICTION?*

   A Tribe has the authority to enact and enforce any Indian employment preference law that is grounded in its inherent sovereign powers of self-government. This legal doctrine is the most basic principle of Indian law and is supported by a host of Supreme Court decisions. The jurisdiction is legally described or defined by treaty or legislation. The exterior boundaries of the reservation including cede territories and lands where jurisdiction has not been extinguished. TERO has a political preference, not a racial preference and does not violate Title VII or any other Federal Employment Law.

8. *ARE THERE ANY EXEMPTIONS TO TERO REQUIREMENTS?*

   Yes, there are several exemptions. Direct employment by Federal / State governments, schools, churches and some non-profits are not covered by TERO. Some Tribes also exempt themselves from TERO coverage. It is important to note however, that any contract or sub-contract let by any of these entities is covered by TERO.

9. *WILL TERO INTERRUPT MY DAILY BUSINESS OPERATIONS?*

   No. Since TERO is pro-active, the compliance plans are signed by TERO and the employer prior to the commencement of work prevents disputes. The Compliance Officers will monitor the TERO requirements by doing onsite compliance visits that would not be detrimental to business operations. TERO can sanction employers for violations which may shut down operations but only in severe disputes and in accordance with the applicable law.

10. *DOESN'T TERO DO AWAY WITH THE COMPETITIVE BIDDING PROCESS AND FAIR COMPETITION?*

    No. It provides preference to certified and qualified Native American businesses on projects on or near the Tulalip Reservation. As with employment contracting preference is permissible or required under Federal, Tribal, State or other Local laws. Preference is not provided to the exclusion of other businesses. Price and quality are still primary considerations.

11. *ARE EMPLOYERS PROTECTED AGAINST UNFAIR TERO VIOLATION CHARGES?*

    Yes. The first level of protection comes from the TERO Compliance Officer who handles the charge. These officers are trained to deal with facts and merits of the case before making determinations. Beyond the TERO Commission, grievant can seek relief in the Tribal and Federal Courts.

12. *WHAT SANCTIONS DO EMPLOYERS FACE FOR VIOLATIONS OF TERO?*

    Violation of TERO requirements may result in severe sanctions. If the TERO office determines that employers willfully and intentionally breached TERO requirements. TERO may:

    A. Deny such party the right to commence business on the reservation;

    B. Impose a civil fine on such party ranging on most reservations anywhere from $500.00 to $5,000.00 per violation;

    C. Terminate or suspend party's operation and deny them the rights to conduct further business on the reservation; and or

    D. Order any party to dismiss any illegally hired Non-Natives, take action to ensure future compliance and to make back payment of any lost wages be paid to the TERO certified Native Americans.

13. CAN SANCTIONS IMPOSED BY THE TERO COMMISSION BE APPEALED?

Yes. Sanctions imposed by the TERO Commission can be appealed in tribal court. Appeals of tribal court decisions can be made to the federal court system.

It is important to note that only one appeal to a TERO commission and tribal court decision has ever been appealed to the federal court. The case ended at the Ninth

Circuit Court of Appeals and Appellate that upheld the TERO complaint and the Tribal Courts decisions.

14. ARE TERO FEES LEGAL?

Yes. Tribal authority to access a fee is equal to that of any government. Taxation, licenses and fees are a valuable source for financing Tribal governmental operations. Tribes therefore consider their social and economic needs and priorities and set the TERO requirements to suit them just as National, State, and other units of government do.

Many contractors without complaint pay taxes and comply with the governmental requirements of states, counties, etc., but openly oppose doing so with Tribes. This "cultural discrimination" is indicative of the lack of knowledge and acceptance of the sovereign authority of the Tribes. Employers can realize a substantial savings since Tribal taxes or fees pre-empt state or other local taxation on the reservation projects often to the benefit of the employer.

The Tulalip Tribes' TERO fee is 1.75% of total cost on any project over $10,000.

TERO has the responsibility to ensure due process of the employer under the Tribal code and that only qualified and screened referrals are made to the employer.

15. HOW HAVE VARIOUS FEDERAL, STATE AND OTHER AGENCIES VIEWED TERO IN THEIR OPERATION?

When TERO first appeared in the late seventies there was opposition from some and difference from others. Over the past twenty years a great deal of progress has been made, some by direct legal action but most through pro-active, non-adversarial, synergistic effort. The results are Native American preference and TERO provisions, policies and procedures figure prominently in the following:

A. The Civil Rights Handbook.

B. The Job Training and Partnership Act.

C. The Small Business Administration 8(a) Program.

D. Public Law 93-638, The Indian Education Assistance and Self-Determination Act of 1974.

E. HUD Regulations.

F. BIA Acquisition Assistance Agreement 84-1.

G. EEOC / TERO Contracts.

H. OFCCP Indian Employment Initiative.

I. FHWA ISTEA "Indians in Highway Construction Initiative".

J. Indian Health Service Alaska Native Hiring Agreement.

K. US DOL/BAT Notice 84-1.

L. Indian Education Impact and Programs Under PL 81-815 (Construction) and PL 81-874 (OPS/Admin).

CONTRACTORS

The following outlines the TERO expectations and responsibilities placed on all contractors and subcontractors doing work on or near the Tulalip Reservation. This document should be read carefully, along with the TERO Code. If you have any questions or concerns contact a TERO Compliance Officer.

TERO ACKNOWLEDGMENT:

Requirement: The contractor / employer must comply with all rules and regulations as set forth in the TERO Code. This agreement will be affirmed in writing and will be signed and dated by the TERO Manager. Furthermore, if a project is expected to be of one month duration or more, the contractor must arrange a pre-construction meeting with the TERO Manager or TERO Compliance Officers prior to submitting a Compliance Plan to the TERO department.

TERO LIAISON:

Requirement: All contractors and employers must designate a responsible company official to coordinate all employment, training and contracting related activities with the TERO department to ensure that the company is in compliance with the TERO Code during all phases of the project.

NATIVE AMERICAN OWNED BUSINESS REGISTRY:

Requirement: The TERO Office maintains a certified Native American Owned Business Registry. All the businesses on the registry need to be given the opportunity to bid on any projects that they are qualified for. If they are within ten-percent (10%) of the lowest bid, you need to negotiate to see if they can reduce their price. But the fact remains that the bid will be awarded on: price, quality and capability unless other requirements are set forth in the bid documents.

TERO COMPLIANCE PLAN:

Requirement: All contractors, sub-contractors and or employers must have an approved written compliance agreement filed, negotiated and approved by the TERO Office prior to commencement of any construction activities on the Tulalip Reservation. There is a 1.75% TERO fee on any projects over $10,000 to be paid in full or negotiated with the TERO Compliance Officers.

COMPLIANCE PLAN WORKFORCE/ KEY EMPLOYEE:

Requirement: Contractors and or Employers shall be required to hire and maintain as many TERO / Native American preference employees as apply for and are qualified for each craft or skill.

Exception: Prior to commencing work on the Tulalip Reservation the prospective employer, contractor and subcontractors shall identify key and permanent employees.

Key employee: One who is in a top supervisory position or performs a critical function such that an employer would risk likely financial damage or loss if that task were assigned to a person unknown to the employer. An employee who is hired on a project by project basis may be considered a key employee so long as they are in a top supervisory position or perform a critical function.

Permanent employee: One who is and had been on the employers' or contractors' annual pay roll for a period of one year continuously, working in a regular position for the employer, or is an owner of the firm. An employee who is hired on a project by project basis shall not be considered a permanent employee.

Non-preferred Permanent and Key Employee(s) shall not exceed 20% of the workforce. Permanent and Key employees are subject to TERO approval and TERO may require a position to be opened up to all preference workers.

TERO HIRING HALL & RECRUITMENT EFFORTS:

Requirement: Contractor or employer is required to contact the TERO Office for recruiting and placement services on all non-key positions. The TERO Office shall be given a minimum of seventy-two (72) hours to furnish a qualified referral. Furthermore contractors and employers are required to provide TERO with a written list of their projected workforce needs, job classifications, openings, hiring policies, rate of pay, experience / skill requirements, employment screening procedures and anticipated duration of employment.

NATIVE PREFERENCE:

Requirement: All contractors, businesses and employers operating within the boundaries of the Reservation, or on Tribal projects off the reservation shall give preference in hiring, promotion, training, layoffs, recall, and all other aspects of employment, unless other contractual agreements or federal requirements restrict the preference specified below. The order of preference shall be given to the following persons in the following enumerated order:

1) Enrolled Tulalip Tribal Members
2) Spouses, Parent of a tribal member child, biological child born to an enrolled Tulalip Tribal Member, current legal guardian of a Tribal Member dependent child (with a proper letter of temporary or permanent legal guardianship from a court), or a tribal member in a domestic partner relationship (with documentation).
3) Other Natives/Indians shall mean any member of a federally recognized Indian tribe, nation or band, including members of federally recognized Alaskan Native villages or communities.
4) Spouse of federally recognized Native American
5) Regular current employees of the all Tulalip Tribal entities
6) Other

Exception: Where prohibited by contractual agreements or federal requirements, the above order of preference set out in subsection 1.8, shall not apply. In such cases preference shall be given in accordance with the applicable contractual agreement, federal requirement, or Federal Law.

Requirement: If the TERO Office is unable to refer an adequate number of qualified, preferred employees for a Contractor, TERO will notify the Contractor who may fill the remaining positions with non-TERO workers. When this occurs, TERO work permits may be valid for one month from the date of issuance and may be renewed. Work permits are non-transferable.

Requirement: When work permits are issued, the contractor is still required to notify the TERO Office of all future job openings on the project so that qualified, preferred employees have an opportunity to be dispatched.

JOB QUALIFICATIONS, PERSONNEL REQUIREMENTS & RELIGIOUS ACCOMMODATIONS:

Requirement: An employer may not use any job qualification criteria or personnel requirements which serve as barriers to the employment of Natives which are not required by business necessity. The TERO department will review the job duties and may require the employer to eliminate the personnel requirements at issue. Employers shall also make reasonable accommodation to the religious beliefs and cultural traditions of Native workers.

TRAINING:

Requirement: Contractors and or Employers may be required to develop on the job training opportunities and or participate in Tribal or local training programs, including upgrading programs, and apprenticeship or other trainee programs relevant to the employer's needs.

LAY-OFFS:

Requirement: TERO preference employees shall not be laid off where non-TERO preference employees are still working. If the employer lays-off employees by crews, classifications or other categories, qualified TERO preference employees shall be transferred to crews or positions that will be retained. This section does not apply to key or permanent employees.

NOTE: The TERO Office is here to help in any way we can. Communication with the TERO Compliance Officers is very important in that it will help ensure the job to run smoothly.

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THE TULALIP TRIBES
CONSTRUCTION CONTRACT

Contractor –
Project #

This agreement entered into this ___ day of _____ 202__, between "Owner" the Tulalip Tribes 6406 Marine Drive., Tulalip, WA 98271 and _____, hereinafter referred to as "Contractor".

SECTION ONE
DESCRIPTION OF WORK

This Contract consists of this written agreement and all appurtenant "Contract documents" described in Section Eight of this agreement. Contractor shall perform the following work in accordance with this Contract and Contract documents: All work necessary to build _____

SECTION TWO
CONTRACT PRICE

The Tulalip Tribes agrees to pay Contractor for the work described a total Contract price not to exceed the amount of Payment of this amount is subject to additions or deductions in accordance with provisions of this Contract and of any other documents to which this contract is subject. Contractor shall be entitled to request "Progress Payments" during the course of his/her work. Progress payments shall be made to the Contractor under terms and conditions described under Section Four of this Contract.

SECTION THREE
SUBCONTRACTING REQUIREMENTS

The Contractor will be required to self-perform no less than percent (%) of the project's total contracted labor. In the subcontracting of the work, the Contractor will be responsible to provide the Owner a copy of all subcontract agreement templates in the performance of this contract.

SECTION FOUR
PROGRESS PAYMENTS

(A) The Owner shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the Contract, as approved by the Contracting Officer, Project Coordinator and Construction Manager. Payments shall be processed for each draw request within 30 days of final approval once all requested and required documents are received.

(B) The documents required to submit for payment will be a draw form, invoice, certified payroll, conditional waiver, release of claim and anything else deemed necessary by the Contract Officer.

(C) Before the first progress payment is made under this Contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total Contract price showing the amount included therein for each principle category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deduction from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the Contract.

(D) The Contracting Officer must approve the draw request with the concurrence of the project coordinator before payment. *Along with each request for progress payments and the required invoice, the Contractor shall furnish the following certification, or payment shall not be made:* I hereby verify, to the best of my knowledge and belief, that:

(1) The amounts requested are only for performance in accordance with the specifications, terms and conditions of the Contract:

(2) Payments due to Sub-contractors and the Contractors material suppliers have been made from previous payments received under the Contract, and timely payments will be made from the proceeds of the payment covered by this certification in accordance with Subcontract agreements; and

(3) The request for progress payments does not include any amounts, which the Contractor intends to withhold or retain from a subcontractor or their supplier in accordance with the terms and conditions of the Subcontract.

NAME:_____

TITLE:_____

DATE:_____

(E) The Owner shall retain 5% of the amount of progress payments until completion and acceptance of all work under the Contract.

(F) The Contracting Officer may authorize material delivered on site and preparatory work taken into consideration when computing progress payments. Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract, before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation and the Contracting Officer may require to assure the protection of the Owners interest in such material. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the Owner.

(G) All Material and work covered by progress payments made shall at the time of payment become the sole property of Owner, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving any right of the Owner to require the fulfillment of all of the terms per the Contract, in the event the work of the Contractor has been damaged by other Contractors or persons other than employees of the Owner in the course of their employment. The Contractors shall restore such damaged work without cost to the Owner and seek redress for its damage only from those who directly caused it.

SECTION FIVE
FINAL PAYMENT

(A) The Owner shall make the final payment due to the Contractor under this Contract within thirty (30) days after:

(1) Completion and final acceptance of all work; and

(2) Presentation of release of all claims against the Owner arising by virtue of this Contract, other than claims, in stated amounts, that the Contractor has specially made an exception from the operation of the release. Each such exception shall embrace no more than one claim; the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the subcontractors claim to amount payable under this Contract has been assigned.

(3) Three sets of As-built drawings and three electronic version on a USB Flash drive are submitted to the Contracting Officer, as described in section 22 of this Contract.

(B) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or their evidence of payment from all others performing work and/or supplying material to Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claim costs.

(C) Failure of Contractor to comply with any special guarantees required by the contract documents shall result in the withholding of final payment. Contractor, by accepting final payment, waives all claims except those, which he has previously made in writing, and which remain unsettled at the time of acceptance.

SECTION SIX
STARTING AND COMPLETION DATES

Work shall commence on _____ at the start of the business day and be substantially completed in working days with all work complete by _____. All construction must be completed in accordance with the approved Construction Schedule. Failure to complete shall result in imposition of liquidated damages as provided in Section Seven.

SECTION SEVEN
LIQUIDATED DAMAGES

Upon failure by the Contractor to submit an acceptable Construction Schedule within the time required by Section 18, or achieve substantial completion of each phase of construction in accordance with the Construction Schedule, the Contractor shall pay to the Owner, as liquidated damages and not as a penalty, the sum of *seven hundred and fifty* dollars ($750.00) per day of delay or until such time as Substantial Completion of the Work as required by the 80 working day Construction Schedule is achieved. The Contractor and Owner agree that the liquidated damages amount is a reasonable forecast of just compensation for the harm caused the Owner by the Contractor's breach for failure to meet construction schedule timelines.

SECTION EIGHT
CONTRACT DOCUMENTS

The Contract documents on which the agreement between Owner and Contractor are based in accordance with which the work is to be done are as follows:

a. This Instrument

b. Notice to Bidders attached as EXHIBIT A

c. Project Specs (Scope of Work) attached as EXHIBIT B

d. Contract Documents (Bidding Requirements, contract forms, and conditions of contract, special provisions, Plans and Appendices) - EXHIBIT C

These Contract documents together form the Contract for the work herein described. The parties intend that the documents include provisions for all labor, equipment, tools, materials and other items necessary for the execution and completion of the work and all terms and conditions of payment. The documents also include all work and procedures not expressly indicated therein which are necessary for the proper execution of the project.

SECTION NINE
AUTHORITY OF OWNER CONTRACTING COORDINATOR/OFFICER

_____, is hereby designated Contracting Officer for purposes of this agreement. The duties and authority of the Contract Officer shall be as follows:

(A) General Administration of Contract. The primary function of the Owner's Contracting Officer is to provide general administration of the contract as representative during the entire period of construction.

(B) Inspection, Opinions and Progress Reports. The Owner's Contracting Officer shall keep familiar with the progress and quality of the work being performed by Contractors and their subcontractors. The Contracting Officer will make general determinations as to whether the work is proceeding in accordance with the Contract. Neither Owner nor the Contracting Officer will be responsible for the means of construction or for Contractor failure to perform the work properly and in accordance with The Contract document.

(C) Access to worksite for inspections. The Contract Officer shall have free access to the work at all times during the Contract period provided that person first signs-in at the Contractor's Field Office and adheres to all safety practices and policies of the Contractor while on the jobsite. However, the Contract Officer is not required to make exhaustive or continuous on-site inspections to perform the duty of checking and reporting on work progress.

(D) Interpretation of Contract documents. The Contracting Officer will be the interpreter of the Contract documents requirements and will make decisions on claims and disputes between the Contractor and the Owner.

(E) Rejection and stoppage of work. The Contracting Officer shall have authority to reject work, which in the officer's opinion does not conform to the Contract documents and, in this connection, to stop the work or a portion thereof when necessary to insure Contractor's performance is in accordance with the terms of this agreement.

(F) Progress payment certification. The Contracting Officer will determine the amount owing to the Contractor as the work progresses, based on Contractor's application for payment as per Section Four and upon the Contracting Officer's inspections and observation, and will issue certificates for progress payments and final payment in accordance with the terms of the Contract.

SECTION TEN
RESPONSIBILITY OF CONTRACTOR

Contractor's duties and rights in connection with the project herein are as follows:

(A) Responsibility for and supervision of construction. Contractor represents that he has inspected and is familiar with the work site and the local conditions under which the work is to be performed. Contractor shall be solely responsible for all construction under this Contract, including the techniques, sequences, procedures, and means for coordination of all Work. Contractor shall properly supervise and direct the work of the employees and subcontractors, and shall give all attention necessary for such proper direction

(B) Contractor's Representative. Contractor's representative for this contract will be _____. Contractor's representative shall be the point of contact regarding contract compliance issues and shall have the authority to obligate the company in resolving contract compliance and performance issues. Contractor's Representative, or designated Contractor construction superintendent, must be on-site at all times while any work under this Contract is being performed, unless Contractor's representative or construction superintendent receives prior authorization from the Owner to be offsite.

(C) Discipline and employment. Contractor shall maintain at all times strict discipline among his/hers workers and agrees not to employ for work on the project any persons unfit or without sufficient skill to perform the job for which he was employed.

(D) Furnishing of labor, materials, etc. Contractor shall provide and pay for all labor, and or materials and equipment, including but not limited to tools, construction equipment, machinery, utilities including water, transportation, and all other facilities and services necessary for the proper completion of the work on the project in accordance with the Contract documents.

(E) Manufacturer's instructions. Contractor shall comply with manufacture's installation instructions and recommendations to the extent that those instruction and recommendations are more explicit or stringent than requirements contained within Contract documents.

(F) Payment of taxes, procurement of license and permits. Contractor shall pay any taxes required by law in connection with work on the project and shall secure all licenses and permits necessary for proper completion of the work, paying the fees therefore. The Tulalip Tribes of Washington is a federally recognized Indian Tribal Government with a constitution and bylaws approved by the United States Secretary of the Interior. See: 65 Federal Register 13298, 13301 (March 13, 2000). As a recognized tribal government, the Tulalip Tribes of Washington and all of its governmental agencies, is a tax exempt entity. See: 26 USC §7871, and Washington Administrative Code Excise Tax Rule 192 (WAC 458-20-192). All or portions of this project are Tax Exempt from all Sales and/or Use Taxes for all materials and supplies incorporated in construction of the work that become a permanent part of the Project. Upon request a Tax Exemption form may be obtained from the Tulalip Tribes. WAC 458-20-192(5)(a)(ii) states that retail sales tax is not imposed if the retailer service (e.g. construction services) is performed for the member or tribe in Indian country.

(G) Compliance with laws and regulations. Contractor shall comply with all applicable laws and ordinances, and rules, regulations, or orders of all tribal and or public authorities relating to the performance of the work herein. If any of the Contract documents are at variance there with, he shall notify the Contracting Officer promptly on discovery of such variance.

(H) Responsibility for negligence of employees and subcontractors. Contractor assumes full responsibility for acts, negligence, or omission of his/her employees and all other persons doing work under a subcontract with him/her.

(I) Warranty of fitness of equipment and materials. Contractor represents and warrants to the Owner that all equipment and materials used in the work and made a part of any structure thereon, or placed permanently in connection therewith, will be new unless otherwise specified in the Contract documents, of good quality, free of defects, and in conformity with the Contract documents. It is understood between the parties that all the equipment and materials that are not so in conformity are defective.

(J) Cleaning and protection. Contractor shall during handling and installation, clean and protect construction in progress and adjoining materials in place. Contractor shall apply protective covering where required ensuring protection from damage or deterioration.

(K) Furnishing of design and engineering plans as identified in the Contract Documents. Contractor shall furnish the Contracting Officer, upon request, all design and engineering plans for consideration and approval as to conformance with the specifications of the Contract documents.

(L) Clean up. Contractor agrees to keep the work premises and adjoining way free of waste materials and rubbish caused by his/her work or that of his subcontractors, and further shall remove all such waste materials and rubbish on termination of the project, together with all his/her tools, equipment and machinery.

(M) Indemnity and hold harmless agreement. Contractor shall indemnify, defend and hold harmless the Tulalip Tribes its elected and appointed officials, officers, employees, agents and representatives from all claims, losses, suits, actions, legal or administrative proceedings, costs, attorney's fees (including attorney's fees in establishing indemnification of whatsoever nature), litigation costs, expenses, damages, penalties, fines judgment, or decrees by reason of any death, injury or disability to or any person or party, including employees, and/or damage to any property or business, including loss of use, caused in whole or part by any negligent act, error or omission of the Contractor, Contractors employees, agents or subcontractors arising out of or suffered, directly or indirectly, by reason of or in connection with the performance of this Contract.

The Contractors obligation shall include, but not be limited to, investigation, adjusting, and defending all claims alleging loss from any action, error or omission or breach of any common law, statutory or other delegated duty by the

Contractor, Contractors, employees, agents or subcontractors. The Contractors obligations to indemnify, defend and hold harmless shall apply even if the injuries, death or damages, directly or indirectly, result from, arise out of relate to, one or more concurrent negligent acts or omissions of the Tulalip Tribes or its elected and appointed officials, officers, employees, agents, representatives, of the Tulalip Tribes, its agents and its employees acting within the scope of their employment.

If the claim, suit, or action for injuries, death or damages as provided for in the preceding paragraphs of this agreement is caused by or results from the concurrent negligence of (a) the Tulalip Tribes, it's elected and appointed officials, officers, employees, agents and representatives and (b) the Contractor, Contractors employees, agents or subcontractors, the indemnity provision provided for in the preceding paragraph of these specifications shall not apply to damages caused by the Tribes' negligence.

It is specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under the State Industrial Insurance Law, Title 51 RCW, solely for the purpose of this indemnification. The contractor expressly agrees that he has provided for this waiver of immunity in the bid price for the Contract. In addition to any remedy authorized by law, the Owner may retain so much of the money due the Contractor's as deemed necessary by the Contracting Officer to assure indemnification until disposition has been made of any suits or claims. Contractor agrees to pay all royalties and license fees necessary for the work and to defend all actions and settle all claims for infringement of copyright or patent rights, and to save Owner harmless therefrom.

(N) Contractor's liability insurance. The Contractor shall purchase and maintain such liability and other insurance as will protect the Tulalip Tribes and the Contractor from claims or losses which may arise out of or result from the Contractor's performance or obligations under the Contract Documents, whether due to action or inaction by the Contractor or any person for whom the Contractor is responsible.

(O) Prior to commencing work, the contractor shall procure and have in effect Commercial General Liability insurance policy and Business Automobile Liability insurance policy to provide insurance coverage and limits as indicated below. Automobile liability insurance coverage shall include owned, non-owned and hired automobiles. An Umbrella or Excess Liability policy may be used to reach such limits.

Policy Limits – Commercial General Liability

$2,000,000	General Aggregate
$2,000,000	Products/Completed Operations Aggregate
$1,000,000	Occurrence Limit
$1,000,000	Personal and Advertising Injury Limit
$ 100,000	Fire Legal Liability Limit
$ 2,500.00	Medical Payments
$1,000,000	Employer's Liability
$10,000,000	Umbrella Liability

Policy Limits – Business Automobile Liability

$1,000,000	Combined Single Limit

There shall be no subsidence coverage exclusions or other coverage limitations without specific disclosure and approval of the Tulalip Tribes.

(P) Contractor's Workers Compensation.

1.1 All employees of Contractor and subcontractor are to be insured, including qualified self-insured plans, under Washington State Industrial Insurance as well as in compliance with any Federal workers compensation regulations including USL&H and Jones Act Coverage as applicable. Employees not subject the State Act are to be insured under Employer's Contingent Liability (Stop Gap) $1,000,000 on accident and aggregate.

1.2 Such evidence of insurance shall be in the form of an Insurance Certificate issued by the State of Washington Department of Labor and Industries or an insurer satisfactory to the Tulalip Tribes and shall provide for not less than 30 days prior written notice to the Tulalip Tribes of cancellation or reduction in coverage.

(Q) Builder's Risk.

The Tulalip Tribes shall provide and maintain, during the progress of the Work and until the execution of the certificate of Contract Completion, a Builder's Risk Insurance policy to cover all on-site Work in the course of construction including false work, temporary buildings and structures and materials used in the construction process. The amount of coverage is based upon the total completed value of the project (including the value of permanent fixtures and decorations.) Such insurance shall be on a special cause of loss form and may include such other coverage extension, as the Tulalip Tribes deem appropriate. Unless otherwise provided for through agreement, the Contractor experiencing any loss claimed under the Builder's Risk policy shall be responsible for up to $10,000 of that loss. Contractor may provide its own builder's risk or installation insurance coverage for amounts up to the $10,000 deductible. Contractor is responsible for insuring their property in transit, in temporary storage away from the site as well as their own tools, equipment and any employee tools.

1.1 Incidents related to pollution and contamination are specifically excluded from the Builders Risk Insurance policy.

1.2 To be eligible to make a claim under the Tulalip Tribes' Builders Risk Insurance policy, Contractor shall be responsible to secure all materials and or equipment stored on the project site in a secured fenced area.

(R) Insurance Policy Requirements.

Each policy of insurance required to be purchased and maintained by the Contractor shall name the Tulalip Tribes and its members as primary and non-contributory additional insured's using the ISO general liability form CG 2010 11/85 edition or equivalent to include products and completed operations for all Contractors and Subcontractors work. Each policy and respective Certificate of Insurance shall expressly provide a provision wherein no less than 30 days or (10 days in the event of cancellation for non-payment) prior written notice shall be given to the Tulalip Tribes in the event of cancellation, non-renewal, expiration or material alteration of the coverage contained in such policy or evidenced by such Certificate of Insurance.

1.1 At least five (5) days prior to commencement of the Work or any portion thereof, and prior to the performance of any services hereunder, Contractor shall, for the purposes of protecting Owner against any claims, damages or expenses as a consequence of any acts and omissions on the part of Contractor and any of its Subcontractors of any tier in performing the Work, procure or cause or cause to be procured the required insurance coverage with insurance carriers (with and A.M. Best rating of A-VII or better) in form acceptable to Owner and shall maintain all such coverage in full force and effect through the terms of this Agreement.

1.2 The Contractor, if requested, shall furnish the Tulalip Tribes a certified copy of any insurance policy or additional insured endorsement required to be purchased or maintained by the Contract Documents. In no event shall any failure to demand a certified copy of any required insurance or insured endorsement be construed as a waiver of the obligation of the Contractor to obtain insurance required to be purchased or maintained by the Contract Documents.

1.3 The Contractor shall maintain all insurance in the required amounts, without interruption, from the date of the execution of the Contract until three (3) years after the date of approval of the certificates of Contract Completion by the Tulalip Tribes. Failure to maintain the required insurance during the time specified shall be cause for termination of the Contract.

1.4 Insurance policies required to be purchased and maintained by the Contractor may include a reasonable loss deductible, which shall be the responsibility of the Contractor to pay in the event of loss.

1.5 The prompt repair or reconstruction of the Work as a result of an insured loss or damage shall be the Contractor's responsibility and shall be accomplished at no additional cost to the Tulalip Tribes.

(S) Waivers of Subrogation. The Tulalip Tribes and the Contractor waive all rights against each other for damages caused by fire or other perils to the extent of actual recovery of any insurance proceeds under any property insurance obtained pursuant to this Article or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Tulalip Tribes as fiduciary.

(T) Other Provisions.

1.1 Neither the Tulalip Tribes nor Contractor shall be liable to the other party or to any insurance company (by way of subrogation or otherwise) insuring the other party for any loss or damage to any building, structure or tangible personal property of the other occurring in or about the Work, if such loss or damage is covered by insurance benefiting the party suffering such loss or damage or was required to be covered by insurance under terms of the Agreement. Each party shall cause each insurance policy obtained by it to contain the waiver of subrogation clause.

1.2 Contractor shall indemnify, defend and hold the Tulalip Tribes harmless from all losses, damages, liabilities, fines penalties, cost (including clean-up cost) and expenses (including attorney's fees) arising from hazardous, toxic or harmful wastes, materials or substances, as defined by applicable law, deposited on or about the Project site by Contractor, Subcontractors, suppliers or materialmen or its or their agents or employees. Should any material that exhibits hazardous or toxic characteristics as defined in applicable law be brought onto the Project site by Contractor, Subcontractors, suppliers or materialmen or its or their agents or employees, that material will be handled, stored, transported and disposed of by Contractor in accordance with respective regulations and the best available technology. Should any such material be found on the Project site that was not brought onto the Project site by Contractor, Subcontractor, suppliers or materialmen or its or their agents or employees, Contractor shall immediately notify the Tulalip Tribes through the Contracting Officer. Contractor is not responsible for losses, damages, liabilities, fines, penalties, costs including cleanup and expenses arising from hazardous, toxic or harmful wastes, materials or substances existing at the site prior to Contractor mobilization.

1.3 In the event Contactor fails to maintain any and all insurance required by this Contract during the entire life of this Contract, the Tulalip Tribes may at its option, and without waiver of other available remedies, purchase such insurance in the name of Contractor and deduct the cost of same from payments due Contractor

(U) Inspection and Testing Laboratory Services.

1. Owner will appoint, employ, and pay for services of an independent firm to perform inspection and testing as identified in the Contract documents.

2. Site visits and retesting that is required because of the scheduling problems caused by the Contractor and/or non-conformance to specified requirements shall be performed by the same independent firm. Payment for retesting will be charged to the Contractor by deducting inspection or testing charges from the Contract Price.

(V) Drug free Workplace. Contractor will be responsible to pre-screen & enforce a drug free workplace program to their employees and any subcontractors that they employ or subcontract within the performance of this contract to insure that they are drug free during the execution of this contract. Contractor agree that they and their subcontractors will maintain a drug free workplace and will be responsible for conducting pre-screen drug testing on their employees who will be working at the jobsite per the Contractor's company policies.

Contractor acknowledges and agrees to advise its employees, agents, and subcontractors that it is the policy of the Tribe (1) to prohibit the use, possession, sale, and distribution of alcohol, illegal drugs, or other controlled substances on its premises; and (2) to prohibit the presence on Tribe's property of employees of a contractor, subcontractor, or agent who has such substances in his/her body for nonmedical reasons. Entry onto Tribe's property constitutes consent to an inspection of the employees of the Contractor, subcontractor, or agent, including vehicles and personal effects when

entering, while on, or upon leaving Tribe's jobsite property. Any Contractor employee, subcontractor, or agent who is found in violation of this policy will be removed and barred from Tribe's jobsite property.

Contractor further agrees that when one of its employees, agents, or an employee of a subcontractor, while on Tribe's jobsite property, has a documented performance deviation, abnormal incident, or unusual behavior which is suspected to be the result of drug or alcohol abuse, this employee will be asked to leave the premises upon the arrival of his immediate supervisor who will accompany the employee from Tribe's jobsite property. An employee or agent of Contractor or subcontractor suspected to be under the influence of alcohol or drugs will not be readmitted to Tribe's jobsite until a negative urinalysis for drug screen for that employee is certified by an approved laboratory, at Contractor's expense, and transmitted to Tribes' designated representative.

Contractor employees, subcontractors, and agents who test positive for alcohol or other drugs in a test administered by a qualified laboratory suitable to Tribe, on samples taken after leaving Tribe's jobsite, will not be permitted reentry to Tribe's jobsite property, unless, at Tribes discretion it allows employee to re-enter jobsite after receiving notice of compliance with a treatment plan and release by a health care provider that employee is fit to work.

All of Contractor's employees, agents, and subcontractors presently working on Tribes' property are to be immediately notified of this policy. Any agents or subcontractors under contract to Contractor must also be notified of Tribe's policy. Contractor agrees that disciplinary actions or other employment decisions affecting Contractor's employees, subcontractor, agents, and applicants that arise in any way out of matters related to this Section are the sole responsibility of Contractor. The Tribe agrees to maintain the confidentiality of test results and to use test results solely in connection with its decisions as to whether to permit a contractor employee, subcontractor, or agent to enter or remain on the Tribe's jobsite property. Contractor agrees to maintain the confidentiality of any information gained or exchanged from or during the implementation of this policy.

The unit or structure that the Contractor was constructing or rehabilitating will also be tested for the presence of drugs that pose a health hazard and if found to test positive for drugs, the Contractor will be financially responsible to fully decontaminate the structure or unit before acceptance of the work or any further payment are made under the Contract.

(W) Archaeological and Historical Objects. Archaeological or historical objects, which may be encountered by the Contractor, shall be protected and not further disturbed. The Contractor shall immediately notify the Contracting Officer of any such finds. The Contracting Officer will contact the Tribal Natural Resource and Cultural Department who will determine the nature of the object(s) to be surveyed. The Tribal Representative may require the Contractor to stop work in the vicinity of the discovery until the survey is accomplished, and further instructions are provided. The Contractor will be entitled to additional days of performance related to stop work notices issued by the Contracting Officer of Tribe.

(X) Excess Material. All excess material left on site shall become the property of the Owner after seven (7) calendar days.

(Y) Performance and Payment Bond. Contractor **is required** to provide to the Owner a 100% percent Performance and Payment Bond issued by a company located in the United States (no later than ten (10) days after the contract has been awarded) issued by an approved surety duly licensed and authorized to transact business in the State using Performance Bond and Payment Bond published by The American Institute of Architects (AIA) Form A312. Liability under each bond shall be 100% percent of the applicable contract sum, for the base bid and alternates. Performance Bond shall cover the correction of work as required during the warranty period of one (1) year. The Contractor shall provide additional bonds or riders when subsequent project changes increase the Contract Sum by 15% or more. This bond will include a warranty guarantee of 5% of the contract price to cover any work defects found in the original construction, during the warranty period.

SECTION ELEVEN
EXAMINATION AND AUDIT

(A) Examination. The Tulalip Tribes shall have the right to examine all books, records, documents and other data of the Contractor and of the Contractor's Subcontractors and Material Suppliers related to the bidding, pricing or performance of the Work, including without limitation, related to any Proposals and request for equitable adjustment of the Contract.

(B) Inspection. The right of inspection, audit and reproduction shall extend to all documents necessary to permit intelligent evaluation of the cost of pricing data submitted along with the computations and projections used therein.

(C) Availability. The above referenced materials shall be made available at the office of the Contractor, Subcontractor or Material Supplier, as applicable, at all reasonable times for inspection, audit and reproduction until the expiration of seven (7) years after the date of acceptance of the Project by the Tulalip Tribes of Washington.

(D) Confidentiality. To the extent that the Contractor, Subcontractor or Material Supplier, as applicable, informs the Tulalip Tribes of Washington in writing that any documents copied by the Tulalip Tribes of Washington are trade secrets, the Tulalip Tribes shall treat such documents as trade secrets of the Contractor, Subcontractor or Materials Supplier, as applicable. In the event any dispute arises with any other person about whether such other persons should be given access to the documents, the Contractor, Subcontractor or Material Supplier, as applicable, agrees to indemnify the Tulalip Tribes of Washington against all costs, expenses, and damages, including without limitation attorney fees, incurred by reason of that dispute.

SECTION TWELVE
TIME OF ESSENCE – EXTENTION OF TIME

All times stated herein or in the Contract documents are of the essence hereof. Contract times may be extended by a contract modification from the Contracting Officer for such reasonable times as the Contracting Officer may determine when in his/her opinion the Contractor is delayed in work progress by changes ordered, labor disputes, fire, prolonged transportation delays, injuries, or other caused beyond the Contractor's control or which justify delay.

SECTION THIRTEEN
CORRECTING WORK

When it appears to the Owner or Contractor during the course of construction that any work does not conform to the provision of the contract documents, he shall make necessary corrections so that such work will so conform, and in addition will correct any defects caused by him or by his/her subcontractor, appearing within one year from the date of issuance of a certificate of substantial completion by the Architect and Contracting Officer, or within such longer period as may be prescribed by law or as may be provided for by applicable special guarantees in the Contract documents.

SECTION FOURTEEN
WORK MODIFICATIONS

Owner reserves the right to order work modifications in the nature of additions or deletions, without invalidating the Contract, and agrees to make corresponding adjustments in the Contract price and time for completion. Any such modifications will be authorized by a written **Field Directive** or **Contract Modification** signed by the Contracting Officer. The work shall be modified, and the contract price and completion time shall be modified only as set out in the written Field Directive / Contract Modification. Any adjustment in the Contract price resulting in a credit or a charge to Owner shall be determined by the mutual written agreement of the parties to this Contract.

SECTION FIFTEEN
TERMINATION

This Contract may be terminated as follows:

(A) Termination by Owner. Owner may on seven (7) days' written notice to the Contractor terminate this Contract before the completion date hereof, and without prejudice to any other remedy Owner may have, when the Contractor defaults in performance of any provision herein, or fails to carry out the construction in accordance with the provision of the Contract documents. On such termination, Owner may take possession of the work site and all materials, equipment, tools, and machinery thereon it has paid or will pay for, and finish the work in whatever way Owner deems expedient. If the unpaid balance on the Contract price at the time of such termination exceeds the expenses of finishing the work, Owner will pay such excess to the Contractor. If the expense of finishing the work exceeds the unpaid balance at the time of termination, the Contractor agrees to pay the difference to Owner. On such default by the Contractor, Owner may elect not

to terminate the Contract and in such event Owner may make good the deficiency of which the default consists and deduct the costs from the progress payments then or to become due to the Contractor.

(B) Owner's Termination for Convenience. The Contracting Officer may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of the Owner. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which such termination becomes effective. If the performance of the work is terminated, either in whole or in part, the Owner shall pay the Contractor for reasonable and proper cost resulting from such termination upon the receipt by the Owner of a properly presented claim setting out in detail: (1) the total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor (2) the cost (including reasonable profit) of settling and paying claims under subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by the Owner to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and the protecting the work already performed until the Owner or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of administrative services reasonably necessary to prepare and present the termination claim to the Owner: (5) and amount constituting reasonable profit on the value of the work performed by the Contractor.

(C) Records. If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to the Tulalip Tribes for a period of seven (7) years from the date of any applicable final settlement. Records which relate to any dispute, litigation, or claim arising out of the performance of the Work shall be made available until such dispute, litigation or claim have been finally decided or settled. The Contracting Officer will act on the Contractor's claim. Any disputes with regard to this clause are expressly made subject to the provisions of the **Disputes** clause of this contract.

SECTION SIXTEEN
ARCHITECT/ENGINEERS DUTIES, RESPONSIBILITIES, AND AUTHORITY

(A) Any Architect/Engineer engaged by the Owner for this contract and any successor shall be designated in writing by the Contracting Officer.

(B) Any Architects/Engineer shall serve as the technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. Such Architect/Engineer may provide direction with approval of the construction manager on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the contract; (2) constitutes a change as defined in the work change clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction progress schedule; or (5) changes any of the other express terms or conditions of the contract.

(C) The duties and responsibilities of any Architect/Engineer engaged by the Owner for this contract may include the following: (1) Make periodic visits to the work site and on the basis of such on-site inspections, issues written reports to the Contracting Officer which shall include all observed deficiencies. Such Architect/Engineer shall file a copy of the report with the Contractor's designated representative at the site: (2) Making modifications in the drawings and technical specifications and assisting the Contracting Officer: (3) reviewing and making recommendation with respect to (i) the drawings; (ii) the Contractors shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor , and, (iv) the Contractors price breakdown; (4) Assisting in inspections, signing Certificates of completion, and making recommendations with respect to acceptance of work completed under the contract; and, (5) such other duties and responsibility as are designated in writing by the Contracting Officer.

SECTION SEVENTEEN
SUBCONTRACTORS OTHER CONTRACTS

(A) OTHER CONTRACTORS: The Owner may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other Contractors and with Owner's employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any directions that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other Contractor or by Owners' employees.

(B) SUBCONTRACTS DEFINITIONS

1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

(C) AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

1.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Contracting Officer the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Contracting Officer will promptly reply to the Contractor in writing stating whether or not the Owner, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner to reply within five (5) working days shall constitute notice of no reasonable objection.

1.2 The Contractor shall not contract with a proposed person or entity to whom the Contracting Officer has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

1.3 If the Contracting Officer has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Contracting Officer has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

1.4 The Contractor shall not change a Subcontractor, person or entity previously selected if the Contracting Officer makes reasonable objection to such substitute.

(D) SUBCONTRACTUAL RELATIONS

1.1 By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner. Each subcontract agreement shall preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written

request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

(E) CONTINGENT ASSIGNMENT OF SUBCONTRACTORS

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

1. Assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 15 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and

2. Assignment is subject to the prior rights of the Contractor and surety, if any, obligated under bond relating to the Contract.

1.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

SECTION EIGHTEEN
CONSTRUCTION SCHEDULE

(A) Ten (10) days prior to commencing work, the Contractor shall prepare and submit to the Contracting Officer for approval a practicable written schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the salient features of work (including acquiring a TERO compliant labor force, materials and equipment) and the final completion date. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may impose Liquidated Damages under Section Seven or invoke other remedies under the contract until the Contractor submits the required schedule.

(B) After receipt of the Construction Schedule, the Owner may make adjustments as needed, upon mutual agreement with the Contractor, and shall issue a final approved Construction Schedule. The Contractor shall be bound by the mutually approved Construction Schedule and shall be subject to Section Seven liquidated damages and other remedies for failure to complete the project by the required date or otherwise perform the work in accordance with the Construction Schedule. The approved Construction Schedule shall be incorporated and made a part of this Contract.

(C) If the Contracting Officer determines that the Contractor is not meeting the approved schedule, the Contractor shall take steps necessary to improve its progress without additional cost to the Owner.

(D) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractors right to proceed with the work, or any separable part of it, in accordance with the Termination clause of this contract.

SECTION NINETEEN
SITE INVESTIGATIONS AND CONDITIONS AFFECTING THE WORK

(A) The Contractor acknowledges that is has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric, power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Owner, as well as from the drawings and specifications made a part of this contract. Any

failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for performing the work without additional expense to the Owner.

(B) The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Owner. Nor does the Owner assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this Contract.

SECTION TWENTY
DIFFERING SITE CONDITIONS

(A) The Contractor shall within ten (10) days, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

(B) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. Work shall not proceed at the affected site, except at the Contractors risk, until the Contracting Officer has provided written instructions to the Contractor. If conditions do materially so differ and cause an increase or decrease in the Contractors cost of, or the time required for, performing any part of the work under this contract, whether or not changed as result of the conditions, the Contractor shall file a claim in writing to the Owner within ten (10) days after receipt of such instructions and, in any event, before proceeding with the work unless otherwise authorized in writing by the Contracting Officer. An equitable adjustment in the contract price, the delivery schedule, shall be made under this clause and the contract modified in writing accordingly.

(C) No request by the Contractor for an equitable adjustment to the contact under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above giving written notice may be extended by the Contracting Officer.

(D) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

SECTION TWENTY-ONE
SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION

(A) The Contractor shall keep on the work site a copy of the drawings and specifications, addenda and modification orders and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mention in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications or in case of discrepancy in the figures in the drawings, or in the specifications, the Contractor shall promptly submit the matter in writing to the Contracting Officer for resolution. The Contracting Officer shall promptly make a determination in writing. Any work completed or action undertaken by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary.

(B) “Shop drawings” means drawings, submitted to the Contracting Officer by the Contractor, or any lower tier Contractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain

in detail specific portions of the work as required by the Contract. The Owner may duplicate, use a disclose in any manner and for any purpose shop drawings delivered under this Contract unless the Contractor identifies the shop drawing as proprietary upon which the Contracting Officer will not share of disseminate without Contractor approval.

(C) If this Contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other Contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Owner's reasons therefore. Any work done before such approval shall be at the Contractors risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (D) below.

(D) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer, upon consultation with any Architect engaged by the Owner for this contract, approves any such variation, the Contracting Officer shall issue an appropriate modification to the contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(E) It shall be the responsibility of the Contractor to make timely requests of the Owner for such large scale and full size drawings, color schemes, and other additional information, not already in the possession of the Contractor, which shall be required in the planning and production of the work. Such requests may be submitted as the need arises, but each such request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

(F) The Contractor shall submit to the Contracting Officer for approval all shop drawings as called for under the various headings of the specifications. Two sets consisting of (3 electronic flash drive and 2 hard copy) of all shop drawings, will be retained by the Owner and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this Contract, shall furnish a complete set of all shop drawings as finally approved. The drawings shall show all changes and revisions made up to the time the work is completed and accepted.

(G) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by lower tier contractors are submitted to the Contracting Officer.

(H) The Contractor shall promptly give written notice to the Contracting Officer of any errors or omissions in the design of the work.

SECTION TWENTY-TWO
AS – BUILT DRAWINGS

(A) "As-built drawings," as used in this clause, means drawings submitted by the Contractor or lower tier Contractor at any tier to show the construction of a particular structure of work as actually completed under the Contract. "As-built drawings" shall be synonymous with "Record drawings."

(B) As required by the Contracting Officer, the Contractor shall provide to the Owner within ten (10) working days of acceptance of the work accurate information to be used in the preparation of permanent set of as-built drawings. The Contractor shall record on one set of contract drawings all changes from the installations originally indicated. This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by lower tier contractors are the responsibility of the Contractor.

SECTION TWENTY-THREE
PUNCH LIST & INSPECTION

(A) Contractors Punch List. When the work, or designated portion thereof, is near completion, the Contractor shall prepare a list of all deficient items remaining of the work or the designated portion thereof (the "Contactor's Punch List")

a. The Contractor shall proceed to correct all items listed on the Contractor's Punch List and verify that the deficient items have been corrected by signing said Punch List.

b. The Contractor shall submit the signed Contractor's Punch List to the Contracting Officer.

(B) Architect/Engineer's Punch List. Within (7) days of receipt of the request for Final Inspection the Contract Officer shall work with the Project Coordinator, Construction Manager and Architect/Engineer to notify the Contractor acceptance or rejection of the request for Final Inspection, stating reasons for any rejections

a. Upon acceptance of the Contractor's request, the Architect/Engineer, Contract Officer, Project Coordinator, and Construction Manager shall conduct the Final Inspection to determine whether the work, or designated portion thereof, is in conformity with the Contract Documents. The Contract Officer shall notify the Contractor, the Architect/Engineer, Project Coordinator and the Construction Manager of the scheduled time of the Final Inspection.

b. Within three (3) days of the Final Inspection, the Contract Officer shall notify the Contractor of any items remaining in a deficient or unacceptable condition. The list if such items shall be known as the Architect/Engineer's Punch List.

(C) Correction of Punch List Items. Within 30 days of written notice the Contractor shall complete and correct all items remaining on the Contracting Officer's Punch List.

a. If the Work on the Punch List cannot be completed within 30 days of receipt of the written notice, the Contractor shall justify, to the Contracting Officer the reasons the items cannot be so completed, and the Contractor shall propose to the Contracting Officer a time when such items will be completed.

b. Failure of the Architect/Engineer or Project Coordinator and Construction Manager to include any items in the Architect/Engineer's Punch List shall not alter the responsibility of the Contractor to complete all the work in accordance with the Contract Documents.

c. If multiple inspections of items on the Architect/Engineer's Punch List are required due to the Contractor's failure to properly and timely complete them, the Contractor shall be responsible for any additional costs incurred by other Contractors and Tulalip Tribes of Washington resulting from any attendant delay.

(D) Deferred Items. With the approval of the Contracting Officer, when Final Inspection, items of work cannot be completed because of seasonal condition, such as bituminous paving or landscaping, or if the Contracting Officer agrees that a particular item not be completed until a subsequent date, the Tulalip Tribes of Washington may release payment to the Contractor less the cost of completing the remaining work as determined in the sole discretion of the Tulalip Tribes of Washington.

(E) Guarantee Period of Inspection. The Contractor will attend a walk-through of the Project scheduled by the Contracting Officer to occur one month prior to the expiration of the one (1) year warranty period provided by the Contractor. The walk-through will be attended by the Contracting Officer.

a. The Construction Manager, with the assistance of the Architect/Engineer, shall notify the Tulalip Tribes of Washington of any defects in workmanship, materials and equipment

SECTION TWENTY-FOUR
HEALTH, SAFETY, AND ACCIDENT PREVENTION

(A) In performing this Contract, the Contractor shall be responsible for: (1) Ensuring that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to the health and/or safety of such laborer or mechanic as determined under construction safety and health standards promulgated by any tribal entity or agency having jurisdiction over such matters or any other entity or agency having authority over such matters; (2) Protecting the lives, health, and safety of other persons; (3) Preventing damage to property, materials, supplies, and equipment; and (4) Avoiding work interruptions.

(B) For these purpose, the Contractor shall: (1) Comply with such regulations and standards as may be issued by any tribal entity or agency having jurisdiction over such matters and as issued by the Secretary of labor at 29 agency having jurisdiction over such matters and as issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions under applicable tribal law; and (2) include the terms of this clause in every subcontract so that such terms will be binding on each lower tier subcontractor.

(C) The Contractor shall maintain and accurate record of exposure data on all accidents incident to work performed under this Contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment and shall report this data in the manner prescribed by applicable tribal law an in the manner prescribed by 29 CFR Part 1904.

(D) The Contracting Officer shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop work order issued under these circumstances. Failure to receive notice from the Contracting Officer under this section shall not relieve Contractor of any of its responsibilities under this section.

(E) The Contractor shall be responsible for its lower tier subcontractor's compliance with the provisions of this clause. The Contractor shall take such action with respect to any lower tier subcontractor as the Owner, or the Tribal entity or agency have jurisdiction over such matters or any other entity or agency having authority over such matters shall direct as a means of enforcing such provisions.

(F) The Contractor shall immediately notify the Contracting Officer in writing if any hazardous material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site or believed to be encountered on the site. The Contractor shall immediately stop work in the affected area until the nature of the material or substance has been ascertained and until such remedial or corrective measures, if any are required, has been taken. A compensable time extension shall be issued to the Contractor if jobsite progress is slowed, stalled, suspended, or the Contract terminated as a result of such discovery.

(G) The Contractor will submit to the Contracting Officer prior to the commencement of any work a detailed company safety plan that will be used during the execution of the contract. The plan shall name the on-site company safety officer that will be responsible to conduct on site safety meetings, modify safety plan and make notification to the Contracting Officer in the event of any on-site accidents by an employee of the company. Contractor is responsible to provide the minutes of the safety meetings held by the Company on a weekly basis.

SECTION TWENTY – FIVE
PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

(A) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract.

(B) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during performance of this Contract, or by the operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(C) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site; and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.

(D) The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the project.

(E) Any equipment temporarily removed as a result of work under this Contract shall be protected, cleared, and replaced in the same condition as at the time of award of this Contract.

(F) New work which connects to existing work shall correspond in all respects with that to which it connects and/or be similar to existing work unless otherwise required by the specifications.

(G) No structural members shall be altered or in any way weakened without the written authorization of the Contracting Officer, unless such work is clearly specified in the specifications or other contract documents.

(H) If the removal of the existing work exposes discolored or unfinished surfaces or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious. This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different planes or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the specifications or other contract documents.

(I) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.

(J) The Contractor shall be responsible for any damages on account of settlement or the loss of lateral support of the adjoined property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for injury or damage to adjoining and adjacent structures and their premises and shall indemnify and save harmless the Owner there from.

(K) The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

SECTION TWENTY – SIX
TEMPORARY BUILDING AND TRANSPORTATION OF MATERIALS

(A) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Owner. The temporary buildings shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings may be abandoned and need not be removed.

(B) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in performing the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any applicable tribal, federal, state, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

SECTION TWENTY – SEVEN
INSPECTIONS AND ACCEPTANCE OF CONSTRUCTION

(A) Definitions. As used in this clause –
(1) "Acceptance" means the act by which the Contracting Officer approves the work performed under this contract. Acceptance may be partial or complete. (2) "Inspection" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies during the normal course of construction as identified in the approved Construction Schedule) to determine whether it conforms to contract requirements. (3) "Testing" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.

(B) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements, including applicable tribal laws, ordinances, codes, rules and regulations. All work is subject to Owner inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(C) Owner inspections and tests are for the sole benefit of the Owner and do not: (1) Relieve the Contractor of responsibility for providing adequate quality control measures; (2) Relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) Constitute or imply acceptance; or, (4) Affect the continuing rights of the Owner after acceptance of the completed work under paragraph (K) below.

(D) The presence or absence of an Owner inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.

(E) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Owner may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, when prior rejection makes re-inspection or retest necessary. The Owner shall perform all inspections and test in a manner that will not delay the work. Special, full size and performance tests shall be performed as described in the contract.

(F) The Contracting Officer may conduct routine inspections of the construction site on a daily basis.

(G) The Contractor shall, without charge, replace or correct work found by the Contracting Officer not to conform to Contract requirements, unless the Contracting Officer decides that it is in the Owner's interest to accept the work with an appropriate adjustment in Contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(H) If the Contractor does not promptly replace or correct rejected work, the Contracting Officer may (1) By contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) Terminate for default the Contractor's right to proceed.

(I) If any work requiring inspection is covered up without approval of the Contracting Officer, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. Following inspection and correction of the defective work, if any, the uncovered work must be covered up at the expense of the Contractor.

(J) If at any time before final acceptance of the entire work, the Contracting Officer considers it necessary or advisable, to examine work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and materials. If such work is found to be defective or nonconforming in any material respect due to the fault of the Contractor of Subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction, and the Contractor shall not be entitled to any adjustment in the time for completion of the work. If however, such work is found to meet the requirements of the Contract, the Contracting Officer shall make an equitable adjustment to cover the cost of the examination and reconstruction related to conforming work, including, if completion of the work was thereby delayed, a compensable extension of time to the Contract.

(K) The Contractor shall notify the Contracting Officer, in writing, as to the date when in its opinion all or a designated portion of the work will be substantially completed and ready for inspection. If the Contracting Officer determines that the state of preparedness is as represented, the Contracting Officer will conduct the inspection. Unless otherwise specified in the Contract, the Owner shall accept, as soon as practicable after completion and inspection by the Contracting Officer, all work required by the Contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes, or the right under any warranty or guarantee.

(L) Nothing in this clause shall impose any duty on the Owner to conduct any inspection and inspections conducted by the Owner shall be for its sole benefit and use.

SECTION TWENTY – EIGHT
WARRANTY OF TITLE

The Contractor warrants good title to all materials, supplies, and equipment, unless purchased by Owner that is in incorporated in the work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charge, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien or purported lien upon the premises or anything appurtenant thereto.

SECTION TWENTY – NINE
WARRANTY OF CONSTRUCTION

In addition to any other warranties in this contract, the Contractor warrants that work performed under this Contract conforms to the Contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of one year (unless otherwise indicated) from the date that the Owner take possession.

(A) The Contractor shall remedy at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damages to real or personal property of the Owner or of any other person or entity when the damages is the result of; (1) The Contractor's failure to conform to Contract requirements; or (2) Any defects of equipment, material, workmanship or design furnished by the Contractor.

(B) The Contractor shall remedy at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damages to real or personal property of the Owner or of any other person or entity when the damages is the result of; (1) The Contractor's failure to conform to Contract requirements; or (2) Any defects of equipment, material, workmanship or design furnished by the Contractor.

(C) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.

(D) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Owner shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractors expense.

(E) With respect to all warranties, express or implied, from lower tier subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall: (1) Obtain all warranties that it would give in normal commercial practice; (2) Require all warranties to be executed in writing and assigned to the Owner, for the benefit of the Owner and its successors and assigns; and (3) Enforce all warranties for the benefit of the Owner and its successors and assigns.

(F) Before final acceptance of the work by the Contracting Officer, the Contractor shall provide to the Contracting Officer all special warranties required to be provided in the specifications or other Contract documents. Any such warranties to be provided by subcontractors, manufacturers, or suppliers shall comply with the provisions of subparagraph (E) (2) and (E) (3).

(G) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defect of material or design furnished by the Owner nor for the repair of any damage that results from any defect in Owner furnished material or design.

(H) Notwithstanding any provisions herein to the contrary, the time limitations established under this clause relate only to the scope of the obligation of the Contractor to correct the work, and has no relationship to the time within which any obligation of the Contractor under this contract may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to any obligation under this contract. .

(I) These warranties set forth in this clause and elsewhere in the Contract documents shall not limit the Owner's rights with respect to latent defects, gross mistakes or fraud.

SECTION THIRTY
PROHIBITIONS AGAINST LIENS

The Contractor is prohibited from placing a lien or purporting to place a lien on the Owner's property. This prohibition shall apply to all subcontractors at any tier and all material suppliers.

SECTION THIRTY-ONE
CONFLICTS

(A) In the event of a conflict or discrepancy within, between or among any of the Contract documents, the Contractor shall promptly submit the matter in writing to the Contracting Officer for resolution. The Contracting Officer shall promptly make a determination in writing. Any work completed or action undertaken by the Contractor without such a determination shall be at its own risk and expense.

(B) In the event of a conflict between the terms of this instrument and the contract exhibits, the terms of this instrument shall take precedence.

(C) In the event of a conflict between the Contract and applicable tribal law or regulations, the tribal law or regulations shall prevail.

SECTION THIRTY-TWO
CLAIMS AND DISPUTES

(A) "Claim" as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the Contract, is a claim

that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(B) All disputes arising under or relating to this Contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall first be resolved under this clause.

(C) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. Contractor shall give written initial notice to the Contracting Officer of any claim within fourteen (14) days of when Contractor knew, or reasonably should have known, of the event or condition giving rise to an apparent claim.
Any claim by Owner against the Contractor shall be submitted to the Contractor in writing. The Contractor shall respond to claims of the Owner within 14 days of receipt of the Owner's claim. The Contractor's response will be reviewed by the Contracting Officer and the Architect and the Contracting Officer shall issue a written determination.

(D) For claims initiated by Contractor, within 14 days of providing initial written notice of claim as required by 31(C), Contractor shall give supplemental notice of claim to the Contracting Officer describing the claim in reasonable detail including at a minimum: (1) the date and time and description of the event giving rise to the request for adjustment or interpretation of Contract terms, a payment of money, an extension of time or other relief with respect to the terms of the Contract; (2) a statement to the nature of the impacts to the Contractor, its subcontractors or consultants, if any; (3) the amount of the adjustment or an estimate thereof in Contract sum and or Contract time, if any, sought by the Contractor; and (4) the contractual term on which the claim is based. Failure of the Contractor to give an initial notice of claim or supplement the initial notice strictly in compliance with the timeframes set forth in sections 32(C) & (D) shall constitute an absolute and complete waiver, bar and release of such claim.

(E) The Contracting Officer shall, within 30 days after receipt of the request, provide a written determination of the Contractor's Claim.

(F) If the Contractor disagrees with the Contracting Officer's decision, it may invoke the dispute resolution procedures in Section 33.

(G) Compliance with written claim procedures in this Section shall be a required condition precedent to the Contractor invoking the Dispute Resolution procedures in Section 33.

(H) The Contractor shall proceed diligently with performance of this Contract, pending final resolution of any request for relief, claim, or action arising under or relating to the Contract, and comply with any decision of the Contracting Officer.

SECTION THIRTY-THREE
DISPUTE RESOLUTION.

(A) Mediation. Claims, disputes, or other matters in controversy arising out of or related to the Contract, for which the requisites for invoking dispute resolution have been satisfied, shall be subject to mediation as a condition precedent to binding arbitration.

The parties shall endeavor to resolve their Claims by mediation, which, unless the parties mutually agree otherwise, shall be in accordance with the Judicial Arbitration and mediation Services' (JAMS) Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administrating the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this Section 33.A, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

The Parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction.

(B) Arbitration. Any Claim arising out of or related to the Contract, except Claims waived as provided in this Agreement, shall be subject to arbitration. Prior to arbitration, the parties shall endeavor to resolve disputes by mediation in accordance with the provisions of Section 33.A.

Claims not waived or resolved by mediation shall be decided by arbitration which, unless the parties mutually agree otherwise, shall be in accordance with the JAMS rules currently in effect. The demand for arbitration shall be filed in writing with the other party to the Contract and with JAMS.

Any such arbitration shall take place before a single arbitrator if the aggregate value of the Claim and any counterclaim is less than $1,000,000, exclusive of costs and attorney fees. The parties shall endeavor to mutually agree on the arbitrator. Either party may specify and require that the arbitrator selected be an attorney licensed to practice law in the State of Washington and shall be experienced in the field of construction. If the parties are unable to agree upon the selection of an arbitrator within (20) days of their first meeting, the parties shall each select an arbitrator and the two selected arbitrators shall together select a third arbitrator who alone shall decide the matter in dispute. For any claim and counterclaim having an aggregate value of $1,000,000 or more, a panel of three (3) arbitrators shall be appointed unless both parties mutually agree to a single arbitrator. Each of the parties shall designate an arbitrator and the third arbitrator, who shall be a lawyer with experience in construction disputes, shall be selected by the arbitrators designated by the parties. If the two selected arbitrators are unable to agree on a third arbitrator, the third arbitrator shall be appointed pursuant to JAMS construction arbitration procedures. All arbitrators shall be neutral.

Following the initiation of arbitration, the parties shall cooperate in the exchange of information relating to the Claim. For those claims less than $1,000,000 in aggregate, the arbitration shall be governed by JAMS Streamlined Arbitration Procedures. For claims greater than $1,000,000 in the aggregate, discovery shall be guided by the scope of the applicable rules of discovery under the Federal Rules of Civil Procedure for the Federal District Court for the Western District of Washington and JAMS Discovery Protocols. Discovery, however, shall not include interrogatories or request for admission. The parties shall freely exchange documents relevant to the claim(s) and depositions shall be limited to those reasonably necessary for each party to prepare for or defend against the claim(s), subject to the limitations on e-discovery sent forth in the JAMS Discovery Protocols. Disputes regarding discovery shall be resolved by the arbitrator or, where there is an arbitration panel, by the Chair.

Arbitration may include by consolidation, joinder or in any other matter, any additional person or entity who is, or may be involved in, the Claim, including but not limited to the Contractor, Architect, Consultants, Subcontractors and/or suppliers retained by the Contractor. In order to effectuate the purposes of this Section 33.B. the Contractor shall incorporate by reference the provisions of this Section 33B in each Subcontract.

In the event of or arbitration between the parties hereto, declaratory or otherwise relating to the Contract, and notwithstanding any other provisions therein, (a) each party shall bear its own costs and attorneys' fees.

A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation. For such purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim.

Claims and Timely Assertion of Claims. The party filing a notice of demand for arbitration must assert in the demand all Claims, that are not otherwise waived, then known to that party on which arbitration is permitted to be demanded.

Judgment on Final Award. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in the tribal court of the Tulalip Tribes of Washington. The Contractor and the Owner shall comply with the arbitration award and shall not seek further remedy or appeal except as specifically provided by the Federal Arbitration Act.

(C) Limited waiver of sovereign immunity. By signing the Agreement the Owner neither waives, limits nor modifies its sovereign immunity from any lawsuit, except as expressly provided in this Section. The Owner hereby expressly and irrevocably waives its sovereign immunity (and any defense based thereon) for arbitration of Claims arising out of or related to the Agreement, but only

for arbitration in conformity with the provisions and requirements of this Dispute Resolution section, and for judicial proceedings in Tribal Court for the purposes of compelling arbitration of a Claim, determining the arbitrator's jurisdiction, confirming an arbitration award or collecting sums due and owing pursuant to an otherwise enforcing any award or judgment. The Owner hereby irrevocably consents to and submits itself to the jurisdiction of any arbitration proceeding properly convened pursuant to the terms of the Agreement.

This limited waiver of sovereign immunity is solely for the benefit of the Contractor (and Subcontractors whose claims are sponsored by the Contractor, if any) and surety, and the Owner, by granting this limited waiver to the Contractor and surety, does not otherwise waive its sovereign immunity.

SECTION THIRTY-FOUR
POSSESSION UPON SUBSTANTIAL COMPLETION

Owner reserves the right to take over and utilize areas of the work site upon which the Contractor's work has been substantially completed, although other portions of the contracted work remain to be finished. In such an instance, all the Contractors obligations under this Contract shall remain in force and the Contractor will remain responsible for the entire project covered by this Contract until the Contracting Officer has issued a certificate of completion.

SECTION THIRTY FIVE
CONTRACT COMPLETION

(A) The Contractor, as a condition precedent to execution of the certificate of Contract Completion, release of retainage and final payment, shall provide all Project record documents to the Contracting Officer for review for conformity with the requirements of the Contract Documents, then at the Construction Managers approval may send transmittal to the Architect/Engineer for approval, which may include, without limitation:

a. Certificate of Occupancy issued by the local building department;

b. Inspection Certificates required and issued by the authority having jurisdiction, such as Plumbing, Piping Purification, Pressure Piping, Elevator, Boiler, Electrical, etc.;

c. Letter of Approval from the Fire Marshal for fire suppression system;

d. Operating and Maintenance Manuals, which shall be organized into suitable sets of manageable size. Indexed data shall be bound in individual binders, with pocket folders for folded sheet information and appropriate identification shall be marked on the front and the spine of each binder;

e. Neatly and accurately marked sets of As-Built Drawings and other Contract Documents reflecting the actual construction of the Project;

f. Reproducible detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems and components;

g. An electronic copy of all Operating and Maintenance manual documentation, As-Built drawings, Warranties and Guarantees and other Contract Documents in a pdf format;

h. Assignment to the Tulalip Tribes of Washington of all Warranties and Guarantees, including the most recent address and telephone number of any Subcontractors, Material Suppliers, or manufacturers;

i. Final waiver and release of claims from all subcontractors that they are paid in full.

A final waiver and release of claims affidavit to certify that the Contractor has paid all Subcontractors, Material Suppliers and laborers in full for all Work performed or materials furnished for the Project.

SECTION THIRTY – SIX
NOTICES TO THE CONTRACTOR

Whenever notice is required to be delivered to Owner or Contractor, the same shall be effective when mailed via first class US Mail, postage prepaid, to the following persons of the following addresses:

CONTRACTOR	OWNER Tulalip Tribes Construction
.	
	The Tulalip Tribes
	6406 Marine Drive
	Tulalip, WA 98271

Contractor shall notify Owner of any Change of Address.

SECTION THIRTY-SEVEN
T.E.R.O

Contractor agrees that Contract is subject to the Tulalip Tribal Employment Rights Ordinance, TTC 9.05.

IN WITNESS WHEREOF, the parties have executed this agreement at the Tulalip Indian Reservation as of the day and year first above written.

Attest:

Contractor:	**Tulalip Tribes Contract Officer:**	**Tulalip Tribes (BOD):**
Signature	**Signature**	**Signature**
	Transportation Manager	BOD Chairwoman
Title	**Title**	**Title**
Date	**Date**	**Date**

The Tulalip Tribes of Washington

The Hermosa Roads Project

INTERIM WAIVER AND RELEASE OF CLAIMS

TO THE TULALIP TRIBES OF WASHINGTON ("OWNER"):

_____ (the "Releasing Party") has furnished labor or services, or supplied materials or equipment (collectively, the "Work") for construction on The Hermosa Roads Project (the "Project"), located at _____, Tulalip, WA 98271.

Upon receipt of payment by the Releasing Party of **$**_____, whether in cash, by check or by joint check, the Releasing Party represents and certifies to Owner that: (i) Releasing Party and all of its subcontractors are in compliance with the terms of their respective contracts; (ii) all due and payable bills with respect to the Work have been paid to date or are included in the amount requested in the current Application for Payment and there is no known basis for the filing of any claim in respect of the Work except for (a) any claim that the Releasing Party has previously provided written notice to Owner about such claim, and (b) amounts owed to Releasing Party and/or any subcontractor or supplier that are considered Cost of the Work but have been withheld by the Owner; and (iii) waivers and releases from all Subcontractors and/or Suppliers being billed under a Releasing Party Subcontract Agreement or Purchase Agreement have been obtained in form substantially similar hereto as to constitute an effective waiver and release of all known claims. Notwithstanding the foregoing, this Interim Waiver and Release of Claims shall not apply to any amounts owed for Work which has been provided to the Project during a billing period prior to the date hereof where Releasing Party and/or any subcontractor or supplier has not yet requested reimbursement for the cost of the Work provided to the Project.

If any claim covered by this Interim Waiver and Release of Claims is made or filed by the Releasing Party or any of its lower tier consultants, subcontractors, suppliers, vendors or materialmen at any tier against or with respect to Owner or the Project then the Releasing Party (1) shall immediately release and discharge, or secure the release or discharge of, such claim and (2) shall indemnify, defend and hold harmless Owner and the Project from and against any and all costs, damages, expenses, court costs and attorney fees arising from such claim or any litigation resulting from such claim.

_____
(the Releasing Party)

DATED:_____ By:_____

Printed Name: _____

Its:_____

[Notary Seal]

State of: _____ County of: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

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The Tulalip Tribes of Washington

The Hermosa Roads Project

FINAL WAIVER AND RELEASE OF CLAIMS

TO THE TULALIP TRIBES OF WASHINGTON ("OWNER"):

Upon receipt of payment of $_____, whether in cash, by check or by joint check, _____ (the "Releasing Party") has furnished labor or services, or supplied materials or equipment for construction on The Hermosa Roads Project (the "Project"), located at located at _____, Tulalip, WA 98271.

The Releasing Party hereby unconditionally waives and releases any and all claims, stop notices, rights to submit stop notices, suits, demands, protests, damages, losses and expenses of any nature whatsoever (whether under statute, in equity or otherwise and whether received through assignment or otherwise) (each, individually, a "Claim") against or with respect to The Tulalip Tribes of Washington, which is referred to as the Owner in the Contract Documents, or any other party holding an interest in the Property (collectively, the "Released Parties"), or against or with respect to the Project, the Property, improvements to the Property and materials, fixtures, apparatus and machinery furnished for the Property (collectively, the "Released Properties").

Upon the receipt of the aforesaid amount, the Releasing Party expressly acknowledges that it has been paid all amounts due and owing to it for work, services, material or equipment in connection with the Work and the Releasing Party represents and warrants that all amounts due and owing to consultants, subcontractors and suppliers below the Releasing Party in connection with this Project have been paid, unless noted herewith as approved by Owner.

If any Claim is made or filed by the Releasing Party or any of its lower tier consultants, subcontractors, suppliers or laborers at any tier against or with respect to any of the Released Parties or any of the Released Properties, then the Releasing Party (1) shall immediately release and discharge, or secure the release or discharge of such Claim and (2) shall indemnify, defend and hold harmless the Released Parties from and against any and all costs, damages, expenses, court costs and attorney fees arising from such Claim or any litigation resulting from such Claim.

_____
(the Releasing Party)

DATED:_____ By:_____

Printed Name: _____

Its:_____

[Notary Seal]

State of: _____ County of: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

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Department of Revenue
Washington State

Form 27 0032

Buyer's Retail Sales Tax Exemption Certificate

Do not use this form for resale purchases

Reset form

This certificate is for:

☐ **Single use**
You need to show this certificate each time you buy an exempt item.

☐ **Blanket certificate**

You can use this certificate anytime, as long as you and the seller/marketplace facilitator have a recurring business relationship. A recurring business relationship means you have at least one sale transaction within 12 months (RCW 82.08.050(7)(c)).

Name: Date:

Mailing address:

City: State: Zip:

I, the undersigned buyer, certify I am making an exempt purchase for the following reason: (Enter information and/or check applicable box(es)).

1 Nonresident vessel purchases:

Place of residence:

Type of proof of residence accepted (driver's license, State Issued ID Card, etc) ,

including any identification numbers , and expiration date .

☐ Watercraft (make, model and serial number of vessel):

☐ Registered or documented with the US Coast Guard or state of principal use and will leave Washington waters within 45 days; or

☐ Buyer is a resident of a foreign country. Purchase is for use outside Washington and will leave Washington water within 45 days.

Seller's signature: _____

Print form

To request this document in an alternate format, please complete the form dor.wa.gov/AccessibilityRequest or call 360-705-6705. Teletype (TTY) users please dial 711.

2 Electric vehicles/vessels:

☐ a. Batteries or fuel cells for electric vehicles and services for installing, repairing, or improving electric vehicle batteries and fuel cells.

☐ b. Tangible personal property that will become a component of a battery or fuel cell electric vehicle infrastructure and labor and services for installing, constructing, repairing, or improving battery or fuel cell electric vehicle infrastructure, including hydrogen fueling stations.

☐ c. Zero emissions buses.

☐ d. Vessels equipped with battery-powered electric marine propulsion systems or the systems themselves with continuous power greater than 15kW.

☐ e. Batteries and battery packs or shoreside battery infrastructure used to exclusively power electric marine propulsion systems operating at a continuous power greater than 15kW.

3 Intrastate air transport:

☐ Airplanes for use in providing intrastate air transportation by a commuter air carrier and the sale of repair and related services for these airplanes.

4 Interstate or foreign commerce or commercial deep sea fishing business:

☐ a. Motor vehicle, trailers and component parts thereof used to transport persons or property for hire in interstate or foreign commerce.

☐ b. Airplanes, locomotives, railroad cars or watercraft and component parts thereof used in transporting persons or property for hire.

☐ c. Labor and services rendered to construct, repair, clean, alter or improve for hire carrier property.

☐ d. Items for use connected with private or common carriers engaged in air, rail or water in interstate or foreign commerce. (Note: Items consumed in the state are subject to use tax.)

☐ e. Watercraft, component parts, labor and services, and/or diesel fuel used in a qualifying commercial deep sea fishing operation.

Registered vessel name: _____ Vessel number: _____

☐ f. Purchases of liquefied natural gas (LNG) by private or common waterborne carriers in interstate or foreign commerce. The exemption applies to ninety percent of LNG transported and consumed outside this State by the buyer.

5 Other:

Prescription items: You must use the Sales Tax Exemption Certificate for Health Care Providers to claim exemptions for items prescribed for human use and other medical purchases.

☐ a. Waste vegetable oil used to produce biodiesel fuel for personal use.

☐ b. Equipment rental and purchase of services for use in motion picture and video production.

☐ c. Objects of art or cultural value purchased by an artistic or cultural organization.

☐ d. Adaptive automobile equipment purchased by disabled veterans.

☐ e. Animal pharmaceuticals purchased by veternarians. This exemption does not apply to pharmaceuticals for pets (describe):

☐ f. Computer hardware, peripherals, software and related installation, used by the aerospace industry.

☐ g. Labor, services and tangible personal property related to the constructing of new buildings by a manufacturer of commercial airplanes, fuselages, or wings of a commercial airplane, or by a port district, political subdivision, or municipal corporation to be leased to such a manufacturer.

☐ h. Computer hardware, peripherals, software and related installation, purchased by publishers and printers.

☐ i. City, County, Tribal, or Inter-Tribal Housing Authorities.

☐ j. Tangible personal property for use in a noncontiguous state delivered to the usual receiving terminal of the shipper.

Types of goods purchased:

Point of delivery: Carrier/agent:

☐ k. Gases and chemicals used by a manufacturer or processor for hire in the production of semiconductor materials.

☐ l. Hog fuel used to produce electricity, steam, heat, or biofuel.

☐ m. Tangible personal property under the weatherization assistance program.

☐ n. Trail grooming services.

☐ o. Honey bees, honey bee feed purchased by an eligible apiarist. Apiarist ID #:

☐ p. Federal credit union purchases.

☐ q. Wax, ceramic materials, and labor used to create molds consumed during the process of creating investment castings.

☐ r. Sales of ferry vessels to the state or local governmental units, components thereof, and labor and service charges.

☐ s. Joint Municipal Utilities Services Authority.

☐ t. Paratransit vehicles purchased by paratransit service providers.

☐ u. Large/private airplanes purchased by nonresidents.

☐ v. Standard financial information purchased by qualifying international investment management companies and their affiliates.

☐ w. Material and supplies directly used in the packing of fresh perishable horticultural products by persons who receive, wash, sort, and pack fresh perishable horticultural products for farmers.

☐ x. Vessel deconstruction services.

☐ y. Only for delivered bottled water ☐ No source of potable water ☐ Prescribed water ☐ Purchased with food stamps (SNAP)

☐ z. Anaerobic digesters and repair services.

☐ aa. Purchases of solar energy machinery and equipment that generates at least 1 kilowatt (kW) and no more than 100 kW of electricity and labor and services rendered in regard to installation of such equipment.

☐ bb. Ride-sharing vehicles to be used in certain rideshare programs.

Certification:

I, the undersigned buyer, understand that by completing and signing this certificate I am certifying that I qualify for the tax exempt purchase(s) indicated above. I understand that I will be required to pay sales or use tax on purchases that do not qualify for an exemption. In addition, I understand that false or erroneous use of this certificate will result in liability for unpaid tax with interest and may result in additional penalties.

Type of entity: ☐ Individual ☐ Corporation ☐ Sole Proprietor ☐ Partnership ☐ Other (explain) _____

Type of business: _____ Account ID: _____

Buyer name: _____ Title: _____

Street address: _____

City, State, Zip: _____

Buyer signature: _____

Seller must retain the original of this certificate for their records.
Do not send a copy of this certificate to the Department of Revenue.

Instructions

Buyer's must ensure entitlement to the exemption before using this certificate.

For information regarding exemptions, contact Washington State Department of Revenue Taxpayer Information Center at 360-705-6705 or visit our website at dor.wa.gov.

Line 1 applies to watercraft purchased by a nonresident for use outside Washington when delivery take place in Washington. The buyer must provide proof of residency (picture ID) and check the applicable box. By checking the box, the buyer certifies that the vessel will leave Washington State waters within forty-five days. Sellers must examine and document the proof of residency provided by the buyer. **Seller must sign the form.** By signing the form, the seller certifies that the seller has examined and listed the buyer's proof of residency. See WAC 458-20-238 for acceptable proof of residency for corporations, partnerships and limited liability companies. Reference: RCW 82.08.0266, RCW 82.08.02665 and WAC 458-20-238.

Line 2a applies to the purchase of batteries or fuel cells for electric vehicles and services for installing, repairing, or improving electric vehicle batteries and fuel cells. Reference: RCW 82.08.816

Line 2b applies to the purchase of tangible personal property that will become a component of an electric vehicle infrastructure or to labor and services rendered in respect to installing, constructing, repairing, or improving electric vehicle infrastructure, including hydrogen fueling stations. Reference: RCW 82.08.816

Line 2c applies to the purchase of zero emissions buses.Reference: RCW 82.08.816

Line 2d applies to the purchases of vessels with battery- powered electric marine propulsion systems or the systems themselves with continuous power greater than 15 kW. Reference: RCW 82.08.996

Line 2e applies to the purchase of marine batteries, shoreside infrastructure, and related labor and installation charges used with electric vessel marine propulsion systems. Reference: 82.08.996

Line 3 applies to the purchase of airplanes for use in providing intrastate air transportation by a commuter air carrier and the sale of repair and related services for these airplanes. Commuter air carriers are air carriers holding authority under Title 14, part 298 of the code of federal regulations that carries passengers on at least five round trips per week on at least one route between two or more points. Reference: RCW 82.08.0262 and 82.12.0254

Line 4a applies to the purchase of motor vehicles, or trailers by a business operating or contracting to operate for the holder of a carrier permit issued by the Interstate Commerce Commission. The exemption also applies to component parts and repairs of such carrier property including labor and services rendered in the course of constructing, repairing, cleaning, altering or improving the same. The buyer must attach a list stating make, model, year, serial number, motor number and ICC permit number. Reference: RCW 82.08.0263 and WAC 458-20-174

Line 4b applies to the purchase of airplanes, locomotives, railroad cars, or watercraft for use in conducting interstate or foreign commerce by transporting therein or there with persons or property for hire. The exemption also applies to component parts of such carrier property. Reference: RCW 82.08.0262 and WAC 458-20-175

Line 4c applies to charges for labor and services rendered in the course of constructing, repairing, cleaning, altering or improving carrier property when carrier property is used for hire. Reference: RCW 82.08.0262 and WAC 458-20-175

Line 4d applies to the purchase of durable goods or consumables, other than those mentioned in line 4b, for use in connection with interstate or foreign commerce by such businesses. The goods must be for exclusive use while engaged in transporting persons or property in interstate or foreign commerce. The exemption does not apply to charges for labor or services in regard to the installing, repairing, cleaning or altering of such property. Although exempt from retail sales tax, materials are subject to use tax if consumed in Washington. Unregistered businesses must attach a list stating the description and quantity of items that will be consumed in Washington and pay use tax to the seller. Reference: RCW 82.08.0261 and WAC 458-20-175

Line 4e applies to the purchase of vessels, component parts, or repairs by persons engaged in commercial deep sea fishing operations outside the territorial waters of the state of Washington. The exemption also applies to the purchase of diesel fuel used in commercial deep or commercial passenger fishing operations when annual gross receipts from the operations are at least five thousand dollars. Reference: RCW 82.08.0262, RCW 82.08.0298, and WAC 458-20-176.

Line 4f applies to the purchase of LNG by carriers that are registered with the Department of Revenue. Carriers not registered with the Department must pay sales tax on all LNG at the time of purchase, and may later apply for a partial refund directly from the Department.

Line 5a applies to the purchase of waste vegetable oil from restaurants and food processors to produce biodiesel fuel for personal use. The exemption does not apply to persons that are engaged in selling biodiesel fuel at wholesale or retail.
Reference: RCW 82.08.0205.

Line 5b applies to the rental of production equipment and purchases of production services by motion picture and video production companies.
Reference: RCW 82.08.0315 and Motion Picture-Video Production Special Notice.

Line 5c applies to the purchase of objects of art or cultural value, and items used in the creation of a work of art (other than tools), or in displaying art objects or presenting artistic or cultural exhibitions or performances by artistic or cultural organizations.
Reference: RCW 82.08.031 and WAC 458-20-249.

Line 5d applies to the purchases of add-on adaptive automotive equipment purchased by disabled veterans and disabled members of the armed forces currently on active duty. To qualify the equipment must be prescribed by a physician and the purchaser must be reimbursed by the Department of Veterans Affairs and the reimbursement must be paid directly to the seller. Reference: RCW 82.08.875

Line 5e applies to the purchase of animal pharmaceuticals by veterinarians or farmers for the purpose of administering to an animal raised for sale by a farmer. Animal pharmaceuticals must be approved by the United States Food and Drug Administration or the United States Department of Agriculture. This exemption does not extend to or include pet animals.
Reference: RCW 82.08.880.

Line 5f applies to the purchase of computer hardware, peripherals, and software, and related installation, not otherwise eligible for the M&E exemption, used primarily in development, design, and engineering of aerospace products or in providing aerospace services. Reference: RCW 82.08.975.

Line 5g applies to charges for labor and services rendered in respect to the constructing of new buildings used primarily to manufacture commercial airplanes, fuselages of commercial airplanes, or wings of commercial airplanes. The exemption is available to manufacturers engaged in manufacturing commercial airplanes, fuselages of commercial airplanes, or wings of commercial airplanes. It is also available to port districts, political subdivisions, or municipal corporations who lease an eligible facility to a manufacturer engaged in eligible manufacturing activities. The exemption also applies to sales of tangible personal property that will become a component of such buildings during the course of the constructing, and to labor and services rendered in respect to installing, during the course of constructing, building fixtures not otherwise eligible for the exemption under RCW 82.08.02565(2)(b).
Reference: RCW 82.08.980 and RCW 82.32.850.

Line 5h applies to the purchase of computer hardware, peripherals, digital cameras, software, and related installation not otherwise eligible for the M&E exemption that is used primarily in the printing or publishing of printed materials. The exemption includes repairs and replacement parts.
Reference: RCW 82.08.806.

Line 5i applies to all retail purchases of goods and services by City, County, Tribal, or Inter-Tribal Housing Authorities.
Reference: RCW 35.82.210.

Line 5j applies to the purchase of goods for use in a state, territory or possession of the United States which is not contiguous to any other state such as Alaska, Hawaii, Guam, and American Samoa. For the exemption to apply, the seller must deliver the goods to the usual receiving terminal of the for-hire carrier selected to transport the goods.
Reference: RCW 82.08.0269.

Line 5k applies to the purchase of gases and chemicals by a manufacturer or processor for hire in the production of semiconductor materials. Limited to gases and chemicals used to grow the product, deposit or grow permanent or sacrificial layers on the product, to etch or remove material from the product, to anneal the product, to immerse the product, to clean the product, and other uses where the gases and chemicals come into direct contact with the product during the production process, or gases and chemicals used to clean the chambers and other like equipment in which processing takes place.

Reference: RCW 82.08.9651.

Line 5l applies to the purchase of hog fuel to produce electricity, steam, heat, or biofuel. Hog fuel is defined as wood waste and other wood residuals including forest derived biomass. Hog fuel does not include firewood or wood pellets.

Reference: RCW 82.08.956.

Line 5m applies to the purchase of tangible personal property used in the weatherization of residences under the
weatherization assistance program. The tangible personal property must become a component part of the residence.

Reference: RCW 82.08.998.

Line 5n applies to the purchase of trail grooming services by the state of Washington and nonprofit corporations organized under chapter 24.03 RCW. Trail grooming activities include snow compacting, snow redistribution, or snow removal on state or privately-owned trails. Reference: RCW 82.08.0203.

Line 5o applies to all honey bees and honey bee feed (e.g. sugar) purchased by an eligible apiarist. An eligible apiarist is a person who: owns or keeps one or more bee colonies; grows, raises , or produces honey bee products for sale at wholesale; and registers their hives/colonies with the WA State Department of Agriculture as required by RCW 15.60.021

References: RCW 82.08.0204 and RCW 82.08.200

Line 5p applies to the purchase of goods and retail services by federally chartered credit unions. Federal credit unions are exempt from state and local consumer taxes under federal law, such as sales tax, lodging taxes and rental car tax. To be exempt, the federal credit union must pay for goods and services directly, such as by a check written on the federal credit union or a credit card issued to the federal credit union. Sellers should keep a copy of the check or credit card used for payment to substantiate the exempt nature of the sale. Reference: WAC 458-20-190

Line 5q applies to the purchase of wax and ceramic materials used to create molds consumed during the process of creating ferrous and nonferrous investment castings used in industrial applications. Also applies to labor or services used to create wax patterns and ceramic shells used as molds in this process. Reference: RCW 82.08.983

Line 5r applies to sales of ferry vessels to the state of Washington or to a local governmental unit in the state of Washington for use in transporting pedestrians, vehicles, and goods within or outside the territorial waters of the state. The exemption also applies to sales of tangible personal property which becomes a component part of such ferry vessels and sales of or charges made for labor and services rendered in respect to constructing or improving such ferry vessels.

Reference RCW 82.08.0285.

Line 5s applies to cities, counties, and other municipalities that create a Joint Municipal Services Authority.
Reference: RCW 82.08.999

Line 5t applies to purchases of small buses, cutaways, and modified vans not more than 28 feet long by a public social service agency (transit authority) or a private, nonprofit transportation provider.
Reference: RCW 82.08.0287.

Line 5u applies to purchases of private airplanes by nonresidents weighing over 41,000 pounds. It also provides an exemption for charges for repairing, cleaning, altering or improving such airplanes owned by nonresidents. A nonresident qualifies for these exemptions when they are not required to register the airplane with the Department of Transportation.

Reference: RCW 82.08.215

Line 5v applies to the purchase and use of standard financial information by a qualifying international investment management companies and their qualifying affiliates to $15 million dollars in a calendar year. The standard financial information may be provided in a tangible format (e.g. paper documents), on a tangible media (e.g. DVD, USB drive, etc.) or as a digital product transferred electronically.

Reference: RCW 82.08.207

Line 5w applies to purchases of materials and supplies used in packing horticultural products. The exemption applies only to persons who receive, wash, sort, and pack fresh perishable horticultural products for farmers as defined in RCW 82.04.330 and that are entitled to a deduction under RCW 82.04.4287 either as an agent or an independent contractor.
Reference: RCW 82.08.0311

Line 5x applies to deconstruction of vessels. "Vessel deconstruction" means permanently dismantling a vessel, including: Abatement and removal of hazardous materials; the removal of mechanical, hydraulic, or electronic components or other vessel machinery and equipment; and either the cutting apart or disposal, or both, of vessel infrastructure. For the purposes of this subsection, "hazardous materials" includes fuel, lead, asbestos, polychlorinated biphenyls, and oils. "Vessel deconstruction" does not include vessel modification or repair. In order to qualify for this exemption the vessel deconstruction must be performed at either a qualified vessel deconstruction facility; or an area over water that has been permitted under section 402 of the clean water act of 1972 (33 U.S.C. Sec. 1342) for vessel deconstruction. Reference RCW 82.08.9996

Line 5x applies to deconstruction of vessels. "Vessel deconstruction" means permanently dismantling a vessel, including: Abatement and removal of hazardous materials; the removal of mechanical, hydraulic, or electronic components or other vessel machinery and equipment; and either the cutting apart or disposal, or both, of vessel infrastructure. For the purposes of this subsection, "hazardous materials" includes fuel, lead, asbestos, polychlorinated biphenyls, and oils. "Vessel deconstruction" does not include vessel modification or repair. In order to qualify for this exemption the vessel deconstruction must be performed at either a qualified vessel deconstruction facility; or an area over water that has been permitted under section 402 of the clean water act of 1972 (33 U.S.C. Sec. 1342) for vessel deconstruction. Reference RCW 82.08.9996

Line 5y this sales tax exemption only applies to bottled water delivered to the buyer in a re-usable container not sold with the water under one of the following three conditions:

1. No Source of Potable Water – Retail sales and use taxes do not apply to sales of bottled water for human use to persons who do not have a readily available source of potable water. Potable water is water that is safe for human consumption.

2. Water dispensed to patients pursuant to a prescription – Retail sales and use taxes do not apply to sales of bottled water for human use dispensed or to be dispensed to patients, pursuant to a prescription for use in the cure, mitigation, treatment, or prevention of disease or medical condition.

"Prescription" means an order, formula, or recipe issued in any form of oral, written, electronic, or other means of transmission by a duly licensed practitioner authorized by the laws of this state to prescribe.

3. Purchased under the Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp Program.

Line 5z applies to the purchases by owners and operators of anaerobic digesters of services to install, construct, repair, clean, alter, or improve an anaerobic digester. Also applies to purchases of tangible personal property that becomes an ingredient or component of the anaerobic digester. As of July 1, 2018 this includes equipment necessary to process biogas and digestate from an anaerobic and biogas from a landfill into marketable coproducts. See RCW 82.08.900.

Line 5aa applies to the purchases of solar energy machinery and equipment that generates at least 1 kilowatt and no more than 100kW of electricity. This exemption also applies to the labor and services purchased to install such machinery and equipment.
Reference: RCW 82.08.962

Line 5bb applies to purchases of vehicles by a public transportation agency, a major employer, or employees of major employers, to be primarily used for ride sharing or ride sharing for persons with special transportation needs. The vehicle and use of vehicle must meet the criteria in RCW 82.08.0287.

Special Provisions

INTRODUCTION TO THE SPECIAL PROVISIONS

(******)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2021 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are designated by "(******)*"*. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(March 8, 2013 APWA GSP)
(April 1, 2013 WSDOT GSP)

Also incorporated into the Contract Documents by reference are the following documents, regulations and/or requirements, which shall supersede any conflicting provisions of the Standard Specifications and are made a part of this contract; provided, however, that if any of the following documents, regulations and/or requirements are less restrictive than Washington State law, then the Washington State law shall prevail. Contractor shall obtain copies of these publications at Contractor's own expense.

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted edition, with Washington State modifications, if any
- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT/APWA, current edition
- *Engineering Design and Development Standards*, Snohomish County Public Works, current edition

DIVISION 1

GENERAL REQUIREMENTS

DESCRIPTION OF WORK (SCHEDULES A, B, C & D)

(******)

The Hermosa Roads project will include pavement rehabilitation of the existing streets, removal of an existing gravel roadway, installation of an asphalt pavement roadway and installation of a PVC water main. The project is located on the Tulalip Reservation.

Schedule A – Hermosa Roads work includes but is not limited to full depth pavement and subgrade replacement and utility and monument cover adjustments on 42nd Drive NW, 78th Place NW, 79th Place NW, and Shelton Gross Road with sidewalk, curb and gutter, curb ramps, and drainage improvements. Work also includes associated channelization, signing, and surface restoration in accordance with these Specifications and the Plans.

Schedule B – Water system improvements work includes but is not limited to trench excavation, potholing, trench shoring, installation of pipe zone bedding, approximately 700 linear feet of 8-inch and 2,500 linear feet of 6-inch C900 PVC water main and appurtenances, four fire hydrants, 29 1-inch services, seven 2-inch services, four connections to existing water mains, and trench backfill. Work also includes disinfection, pressure and bacteriological testing of the water main prior to connection to existing.

Schedule C – Water system improvements work includes but is not limited to trench excavation, potholing, trench shoring, installation of pipe zone bedding, approximately 1,600 linear feet of 10-inch, 80 linear feet of 8-inch and 90 linear feet of 6-inch C900 PVC water main and appurtenances, four fire hydrants, 13 connections to existing water mains, connection to existing PRV station and trench backfill. Work also includes disinfection, pressure and bacteriological testing of the water main prior to connection to existing and asphalt restoration including replacing pavement markings.

Schedule D – Water system improvements work includes but is not limited to trench excavation, potholing, trench shoring, installation of pipe zone bedding, approximately 800 linear feet of 10-inch and 20 linear feet of 8-inch C900 PVC water main and appurtenances, four connections to existing water mains, reconnect existing water services and trench backfill. Work also includes disinfection, pressure and bacteriological testing of the water main prior to connection to existing and asphalt restoration including replacing pavement markings.

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

The tenth, eleventh, and twelfth paragraphs of Section 1-01.3 are deleted.

The following new terms and definitions are inserted after the twentieth paragraph of Section 1-01.3:

(******)

Dates

Bid Opening Date
The date on which the Contracting Agency publicly opens and reads the bids.

Award Date
The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive bidder for the Work.

Contract Execution Date
The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date
The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date
The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date
The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date
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.

Final Acceptance Date
The date on which the Contracting Agency accepts the Work as complete.

The following definitions in Section 1-01.3 are replaced and revised to read:

(******)

Award

The formal decision of the Contracting Agency to accept the most responsible and responsive Bidder for the Work.

Contracting Agency

Agency of Government that is responsible for the execution and administration of the Contract. “Contracting Agency” refers to the Tulalip Tribes of Washington.

Engineer

The Contracting Agency’s representative who administers the construction program for the Contracting Agency.

Inspector

The Contracting Agency’s representative who inspects Contract performance in detail.

Laboratory

The laboratories of the Contracting Agency, or other laboratories the Contracting Agency authorizes to test Work, soils, and materials.

Project Engineer

The Engineer’s representative who directly supervises the engineering and administration of a construction project.

Section 1-01.3 is supplemented with the following:

(******)

All references to “final contract voucher certification” shall be interpreted to mean the final payment form established by the Contracting Agency.

The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be specified by the Contracting Agency.

Additive
A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate
One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Alternative Dispute Resolution
A method of resolving disputes other than arbitration or litigation.

Business Day
A business day is any day from Monday through Friday, except holidays as listed in Section 1-08.5.

Construction Manager
The individual or firm responsible for providing administration, management and related services as required to coordinate the Project, coordinate the Contractors and provide other services identified in the Contract Documents.

Contract Time
The period of time established by the terms and conditions of the contract within which the work must be completed.

Indian/Native American
The term “Indian or Native American” shall mean any person who is a member of a federally recognized Indian tribe, and recognized as an Indian by the United States, pursuant to its trust responsibility to American Indians.

Liquidated Damages
The sum established in the Contract Documents as the predetermined measure of damages to be paid to the Tulalip Tribes of Washington due to the Contractor's failure to complete the Work, or portions thereof, within stipulated times.

NAOB or NAOB's
Native American Owned Business that has been certified by Tulalip TERO.

Notice of Intent to Award
The notice provided to the apparently successful Bidder stating that upon satisfactory compliance with all conditions precedent for execution of the Contract Form, within the time specified, the Tulalip Tribes of Washington intends to execute a Contract Form with the Bidder.

Notice to Proceed
A notice provided by the Tulalip Tribes of Washington to the Contractor authorizing the Contractor to proceed with the Work and establishing the date for completion of the Work.

Preference/Preferred Employee/Hiring
The term "Preferred Employee" shall mean a person entitled to a preference in employment under Ordinance No. 60, who must be hired in tier preference order before a non-Indian person, whenever an opening is available.

Regulations/Ordinance
Shall mean the regulations implementing any Ordinance adopted by the Tulalip Tribal Employment Rights Commission and the Tulalip Board of Directors, which is a law within the boundaries of the reservation.

Request for Information (RFI)
Written request from the Contractor to the Engineer, through the Construction Manager, seeking an interpretation or clarification of the Contract Documents.

Reservation
Shall mean all lands and waters within the exterior boundaries of the Tulalip Indian Reservation or within the jurisdiction of the Tulalip Tribes.

Samples
Physical examples furnished by the Contractor to illustrate materials, equipment or workmanship and establish Standards by which the Work will be judged.

Surety
A person or entity providing a Bid Guaranty or a Bond to a Bidder or a Contractor, as applicable, to indemnify the Tulalip Tribes of Washington against all direct and consequential damages suffered by failure of the Bidder to enter into the Contract, or by failure of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable.

TERO
Means the “Tulalip Tribal Employment Rights Office”.

Traffic
Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

Tribal Court
Shall mean the tribal court of the Tulalip Tribes of Washington.

Tribal Entity
Means all subsidiary entities of the Tulalip Tribes and is intended to be as broad and encompassing as possible to ensure the Ordinance’s coverage over all employment and contract activities within the Nation’s jurisdiction and the term shall be so interpreted by the Commission and the Courts.

Tribal Preference
Is the process of hiring applicants which gives tribal members a higher preference in employment on tribally funded projects or tribal entities.

Tribal Member
The term “Tribal Member” and the term “Member” shall mean any person who is an enrolled member of the Tulalip Tribes.

Tribe
The term “Tribe” or “Tribes” shall mean the Tulalip Tribes of Washington, unless the context clearly indicates otherwise.

Tulalip TERO Code
The Tulalip “Tribal Employment Rights Office” (TERO) Code is the Tribal law which establishes the methods and procedures to give preference to Indians in hiring promotions, training and all other aspects of employment contracting and subcontracting and specifies the methods and procedures for providing preference to certified NAOB’s when contracting and subcontracting for goods or services on the Reservation.

Tulalip Tribes
See Tulalip Tribes of Washington.

Tulalip Tribes of Washington
The Owner or entity for whom the Project is being constructed.

Tulalip Tribes' Project Manager
The Tulalip Tribes' representative who provides management and oversight for the project.

Unit Price
An amount stated in the bid as the price per unit of measurement for materials or services described in the Contract Documents, which cost shall include overhead, profit and any other expense for the Work.

Veteran
Shall mean a person who has been honorably discharged from the active, reserve, or National Guard armed forces of the United States including Army, Navy, Marines, Air Force, and Coast Guard.

Warranty
Legally enforceable assurance of the quality and performance of materials and equipment.

Waters of the Tribes
"Waters of the Tribes" means all streams, lakes, ponds, wetlands, salt waters, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon:

The lands, wetlands, and tidelands within the boundaries of the Tulalip Tribes Reservation; or

All lands, wetlands or tidelands outside the exterior boundaries of the Reservation which are held in fee by the Tulalip Tribes or held in trust by the United States government for the benefit of the Tulalip Tribes or its individual members; and

All lands, wetlands, or tidelands deemed Tulalip "Indian Country" as defined in 18 U.S.C. 1151.

Work
The construction and services required by the Contract Documents, to include all labor, materials, equipment and services performed or provided by the Contractor for the Project.

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders
(******)

Delete this Section. See Instructions to Bidders.

1-02.2 Plans and Specifications
(******)

Delete this Section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed is contained in the Call for Bids (Advertisement for Bids) for the work.

After award of the Contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	No. of Sets	Basis of Distribution
Plans (11” x 17”)	3	Furnished automatically upon award.
Contract Provisions	3	Furnished automatically upon award.

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor’s own expense.

1-02.4 Examination of Plans, Specifications, and Site of Work

1-02.4(1) General

(June 24, 2021 APWA GSP Option B)

The first sentence of the seventh paragraph, beginning with “Any prospective Bidder desiring…”, is revised to read:

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business *** 5 *** business days preceding the bid opening to allow

a written reply to reach all prospective Bidders before the submission of their Bids.

This Section is supplemented with the following:

(******)

Contractor shall review the entire Contract to ensure that the completeness of their Proposal includes all items of Work regardless of where shown in the Contract. Bidders are cautioned that alternate sources of information (copies of the Contract obtained from third parties) are not necessarily an accurate or complete representation of the Contract. Bidders shall use such information at their own risk.

The full Geotechnical Report, which includes soil log information, is included in the Appendix and is referenced information.

1-02.4(2) Subsurface Information

(******)

Delete this Section and replace it with the following:

If the Contracting Agency has made a subsurface investigation of the site of the proposed Work, the boring log data and soil sample test data accumulated by the Contracting Agency will be made available for inspection by the Bidders. However, the Contracting Agency makes no representation or warranty, expressed or implied, that:

a. The Bidders' interpretations from the boring logs may be correct;

b. Moisture conditions and indicated water tables will not vary from those found at the time the borings were made;

c. The ground at the location of the borings has not been physically disturbed or altered after the boring was made; and

d. Conditions below the surface of the ground are consistent throughout the site with the information made available hereunder, or that conditions to be encountered on the site are uniform or consistent with geological conditions usually encountered in the area.

The Contracting Agency makes no representations, guarantees, or warranties as to the condition, materials, or proportions of the materials

between the specific borings, regardless of any subsurface information the Contracting Agency may make available to the prospective Bidders. Bidders are solely responsible for making the necessary investigations to support and/or verify any conclusions or assumptions used in preparation of their bids.

Any subsurface investigations and analysis were carried out for design purposes only. Contractor may not rely upon or make any claim against Contracting Agency, Engineer, or any of their subconsultants, with respect to:

1. The completeness of such reports 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 conclusions, interpretations, opinions, representations, and information contained in such reports; or

3. Any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, conclusions, interpretations, opinions or information.

1-02.5 Proposal Forms

(******)

Section 1-02.5 is deleted in its entirety.

1-02.6 Preparation of Proposal

The first paragraph of Section 1-02.6 is revised to read:

(******)

The Contracting Agency will accept only those Proposals properly executed on the forms it provides.

The third paragraph of Section 1-02.6 is revised to read:

(******)

In the space provided on the Bid Proposal Form, the Bidder shall confirm that all Addenda have been received.

(******)
The fourth paragraph of Section 1-02.6 is deleted in its entirety.

1-02.7 Bid Deposit

(******)
Section 1-02.7 is deleted in its entirety.

1-02.9 Delivery of Proposal

(******)
Section 1-02.9 is deleted in its entirety.

1-02.10 Withdrawing, Revising, or Supplementing Proposal

(******)
Section 1-02.10 is deleted in its entirety.

1-02.11 Combination and Multiple Proposals

(******)
Section 1-02.11 is deleted in its entirety.

1-02.12 Public Opening of Proposals

(******)
Section 1-02.12 is deleted in its entirety.

1-02.15 Pre-Award Information
(August 14, 2013 APWA GSP)

Delete this Section and replace it with the following:

Before awarding any Contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,

2. Samples of these materials for quality and fitness tests,

3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,

4. A breakdown of costs assigned to any bid item,

5. Attendance at a conference with the Engineer or representatives of the Engineer,

6. Obtain a Tulalip Tribes Business License to do business on the Tulalip Indian Reservation,

7. Obtain, and furnish a copy of, a business license to do business,

8. Any other information or action taken that is deemed necessary to ensure that the Bidder is the lowest responsible bidder.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(******)

Section 1-03.1 is deleted in its entirety.

1-03.2 Award of Contract

(******)

Section 1-03.2 is deleted in its entirety.

1-03.3 Execution of Contract

(******)

Section 1-03.3 is deleted in its entirety.

1-03.4 Contract Bond

(******)

Section 1-03.4 is deleted in its entirety.

1-03.5 Failure to Execute Contract

(******)

Section 1-03.5 is deleted in its entirety.

1-03.6 Return of Bid Deposit

(******)

Section 1-03.6 is deleted in its entirety.

1-03.7 Judicial Review

(******)

Section 1-03.7 is deleted in its entirety.

1-04 SCOPE OF THE WORK

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

The second paragraph of Section 1-04.2 is revised as follows:

(******)

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda.
2. Proposal Form.
3. Special Provisions and APWA General Special Provisions.
4. Tulalip Bay Water Main Improvements Special Provisions.
5. General Provisions.
6. Contract Plans.
7. Snohomish County Engineering Design and Development Standards.
8. WSDOT Standard Specifications for Road, Bridge and Municipal Construction.
9. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-04.4 Changes

1-04.4(1) Minor Changes

Revise the first paragraph to read:

(******)

Payments or credits for changes amounting to $25,000 or less for any one item may be made under the Bid Item “Minor Change”. At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes.

1-04.6 Variation in Estimated Quantities

(July 23, 2015 APWA GSP, Option B)

Revise the first paragraph to read:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of any Contract item, adjusted to

exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original Proposal quantity, and if the total extended bid price for that item at time of award is equal to or greater than 10 percent of the total contract price at time of award. In that case, payment for contract work may be adjusted as described herein:

1-05 CONTROL OF WORK

1-05.4 Conformity With and Deviations from Plans and Stakes

(January 13, 2021 WSDOT GSP, Option 2)

Contractor Surveying - Roadway

The Contracting Agency has provided primary survey control in the Plans.

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the roadbed, drainage, surfacing, paving, channelization and pavement marking, illumination and signals, guardrails and barriers, and signing. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the plans “DO NOT DISTURB” shall be protected throughout the length of the project or be replaced at the Contractors expense.

Detailed survey records shall be maintained, including a description of the work performed on each shift, the methods utilized, and the control points used. The record shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Engineer within three working days after the end of the shift.

The meaning of words and terms used in this provision shall be as listed in "Definitions of Surveying and Associated Terms" current edition, published by the American Congress on Surveying and Mapping and the American Society of Civil Engineers.

The survey work shall include but not be limited to the following:

1. Verify the primary horizontal and vertical control furnished by the Contracting Agency, and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Contracting Agency. The description shall include coordinates and elevations of all secondary control points.

2. Establish, the centerlines of all alignments, by placing hubs, stakes, or marks on centerline or on offsets to centerline at all curve points (PCs, PTs, and PIs) and at points on the alignments spaced no further than 50 feet.

3. Establish clearing limits, placing stakes at all angle points and at intermediate points not more than 50 feet apart. The clearing and grubbing limits shall be 5 feet beyond the toe of a fill and 10 feet beyond the top of a cut unless otherwise shown in the Plans.

4. Establish grading limits, placing slope stakes at centerline increments not more than 50 feet apart. Establish offset reference to all slope stakes. If Global Positioning Satellite (GPS) Machine Controls are used to provide grade control, then slope stakes may be omitted at the discretion of the Contractor

5. Establish the horizontal and vertical location of all drainage features, placing offset stakes to all drainage structures and to pipes at a horizontal interval not greater than 25 feet.

6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade and at the top of each course of surfacing. Subgrade and surfacing stakes shall be set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in curve sections with a radius less than 300 feet, and at 10-foot intervals in intersection radii with a radius less than 10 feet. Transversely, stakes shall be placed at all locations where the roadway slope changes and at additional points such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine Controls are used to provide grade control, then roadbed and surfacing stakes may be omitted at the discretion of the Contractor.

7. Establish intermediate elevation benchmarks as needed to check work throughout the project.

8. Provide references for paving pins at 25-foot intervals or provide simultaneous surveying to establish location and elevation of paving pins as they are being placed.

9. For all other types of construction included in this provision, (including but not limited to channelization and pavement marking, illumination and signals, guardrails and barriers, and signing) provide staking and layout as necessary to adequately locate, construct, and check the specific construction activity.

10. Contractor shall determine if changes are needed to the profiles or roadway sections shown in the Contract Plans in order to achieve proper smoothness and drainage where matching into existing features, such as a smooth transition from new pavement to existing pavement. The Contractor shall submit these changes to the Engineer for review and approval 10 days prior to the beginning of work.

The Contractor shall provide the Contracting Agency copies of any calculations and staking data when requested by the Engineer.

The Contractor shall ensure a surveying accuracy within the following tolerances:

	Vertical	Horizontal
Slope stakes	±0.10 feet	±0.10 feet
Subgrade grade stakes set 0.04 feet below grade	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
Stationing on roadway	N/A	±0.1 feet
Alignment on roadway	N/A	±0.04 feet
Surfacing grade stakes	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)

Roadway paving pins for surfacing or paving	±0.01 feet	±0.2 feet (parallel to alignment) ±0.1 feet (normal to alignment)

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

When staking roadway alignment and stationing, the Contractor shall perform independent checks from different secondary control to ensure that the points staked are within the specified survey accuracy tolerances.

The Contractor shall calculate coordinates for the alignment. The Contracting Agency will verify these coordinates prior to issuing approval to the Contractor for commencing with the work. The Contracting Agency will require up to seven calendar days from the date the data is received.

Contract work to be performed using contractor-provided stakes shall not begin until the stakes are approved by the Contracting Agency. Such approval shall not relieve the Contractor of responsibility for the accuracy of the stakes.

Stakes shall be marked in accordance with Standard Plan A10.10. When stakes are needed that are not described in the Plans, then those stakes shall be marked, at no additional cost to the Contracting Agency as ordered by the Engineer.

Payment

Payment will be made for the following bid item when included in the proposal:

"Roadway Surveying", lump sum.

The lump sum contract price for "Roadway Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

(April 2, 2018 WSDOT GSP, Option 4)

Contractor Surveying – ADA Features

ADA Feature Staking Requirements

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, and grades necessary for the construction of the ADA features. Calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall build the ADA features within the specifications in the Standard Plans and contract documents.

ADA Feature As-Built Measurements

The Contractor shall be responsible for providing electronic As-Built records of all ADA feature improvements completed in the Contract.

The survey work shall include but not be limited to completing the measurements, recording the required measurements and completing other data fill-ins found on the ADA Measurement Forms, and transmitting the electronic Forms to the Engineer. The ADA Measurement Forms are found at the following website location:

http://www.wsdot.wa.gov/Design/ADAGuidance.htm

In the instance where an ADA Feature does not meet accessibility requirements, all work to replace non-conforming work and then to measure, record the as-built measurements, and transmit the electronic Forms to the Engineer shall be completed at no additional cost to the Contracting Agency, as ordered by the Engineer.

Payment

Payment will be made for the following bid item that is included in the Proposal:

"ADA Features Surveying", lump sum.

The unit Contract price per lump sum for "ADA Features Surveying" shall be full pay for all the Work as specified.

(******)

Licensed Surveyors

The Contractor shall be responsible for locating and casing or reestablishing legal survey monuments, including but not limited to conducting research to determine the monument type, filing for and obtaining the appropriate permits for reestablishing monuments, conducting field surveys as

necessary to reference and reestablish the monuments where necessary, and filing the appropriate completion documentation for reestablished monuments.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments not specifically called out to be located and/or adjusted under this project shall be protected at the Contractor's expense throughout the duration of the project.

When required, the Contractor shall prepare and file a complete Land Corner Record, Application for Permit to Remove or Destroy A Survey Monument, or other Record of Survey map appropriate to the affected monument type in accordance with RCW 58.09 and provide a recorded copy to the Contracting Agency. The Contractor shall establish Washington State Plane Coordinates on all points required in the Record of Survey and other points designated in the Contract documents.

The Contractor shall perform all of the necessary calculations for the contracted survey work and shall provide copies of these calculations to the Contracting Agency. Electronic files of all survey data shall be provided and in a format acceptable to the Contracting Agency.

All survey work performed by the Contractor shall conform to all applicable sections of the Revised Code of Washington and the Washington Administrative Code.

The Contractor shall provide all traffic control, signing, and temporary traffic control devices in order to provide a safe work zone.

Payment

Payment will be made for the following bid item that is included in the Proposal:

"Licensed Surveying", per each.

All non-survey costs associated with physical installation of monuments or monument cases and covers will be paid under the unit price for "Adjust Monument Case and Cover", or as described in Section 8-13.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

1-05.11 Final Inspection

1-05.11 Final Inspections and Operational Testing
(October 1, 2005 APWA GSP)

1-05.11(1) Substantial Completion Date

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the work substantially complete and ready for its intended use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefor.

Upon receipt of written notice concurring in or denying substantial completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the work necessary to reach Substantial and Physical Completion. The Contractor shall provide the Engineer with a revised schedule indicating when the Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date and the Contractor considers the work physically complete and ready for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until

physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Contracting Agency, in writing, of the date upon which the work was considered physically complete. That date shall constitute the Physical Completion Date of the contract, but shall not imply acceptance of the work or that all the obligations of the Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the contract.

1-05.12 Final Acceptance

Add the following new section:

1-05.12(1) 2-Year Guarantee Period — New Section

(March 8, 2013 APWA GSP)

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within two years after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for two years after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

1-05.13 Superintendents, Labor, and Equipment of Contractor

(August 14, 2013 APWA GSP)

Delete the sixth and seventh paragraph of this Section.

Add the following new section:

1-05.16 Water and Power **New Section**
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the Contract includes power and water as a pay item.

(******)

1-05.16(1) Dechlorination

The Contractor is responsible for proper disposal of test and flush water. Chlorinated water shall not be flushed, drained, or directed into the storm drains or ditch systems.

Add the following new section:

1-05.18 Record Drawings **New Section**
(March 8, 2013 APWA GSP)

The Contractor shall maintain one set of full size plans for Record Drawings, updated with clear and accurate red-lined field revisions on a daily basis, and within 2 business days after receipt of information that a change in Work has occurred. The Contractor shall not conceal any work until the required information is recorded.

This Record Drawing set shall be used for this purpose alone, shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings shall be kept on site at the Contractor's field office, and shall be available for review by the Contracting Agency at all times. The Contractor shall bring the Record Drawings to each progress meeting for review.

The preparation and upkeep of the Record Drawings is to be the assigned responsibility of a single, experienced, and qualified individual. The quality of the Record Drawings, in terms of accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to modify the computer-aided drafting (CAD) Contract Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

The Record Drawing markups shall document all changes in the Work, both concealed and visible. Items that must be shown on the markups include but are not limited to:

- Actual dimensions, arrangement, and materials used when different than shown in the Plans.
- Changes made by Change Order or Field Order.
- Changes made by the Contractor.
- Accurate locations of storm sewer, sanitary sewer, water mains and other water appurtenances, structures, conduits, light standards, vaults, width of roadways, sidewalks, landscaping areas, building footprints, channelization and pavement markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.).

If the Contract calls for the Contracting Agency to do all surveying and staking, the Contracting Agency will provide the elevations at the tolerances the Contracting Agency requires for the Record Drawings.

When the Contract calls for the Contractor to do the surveying/staking, the applicable tolerance limits include, but are not limited to the following:

	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	±0.01 foot	±0.01 foot
As-built monumentation	±0.001 foot	±0.001 foot
As-built waterlines, inverts, valves, hydrants	±0.10 foot	±0.10 foot
As-built ponds/swales/water features	±0.10 foot	±0.10 foot
As-built buildings (fin. Floor elev.)	±0.01 foot	±0.10 foot
As-built gas lines, power, TV, Tel, Com	±0.10 foot	±0.10 foot
As-built signs, signals, etc.	N/A	±0.10 foot

Making Entries on the Record Drawings:

- Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:
  - Additions - Red
  - Deletions - Green
  - Comments - Blue
  - Dimensions - Graphite
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.
- Date all entries.
- Clearly identify all items in the entry with notes similar to those in the Contract Drawings (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above. The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

Payment will be made for the following bid item:

Record Drawings Schedule A: (Minimum Bid $ ***2,000.00***) Schedule B: (Minimum Bid $ ***1,000.00***) Schedule C: (Minimum Bid $ ***1,000.00***) Schedule D: (Minimum Bid $ ***1,000.00***)	Lump Sum

Payment for this item will be made on a prorated monthly basis for work completed in accordance with this section up to 75% of the lump sum bid. The final 25% of the lump sum item will be paid upon submittal and approval of the completed Record Drawings set prepared in conformance with these Special Provisions.

A minimum bid amount has been entered in the Bid Proposal for this item. The Contractor must bid at least that amount.

1-06 CONTROL OF MATERIAL

Add the following new section:

(******)

1-06.7 Shop Drawings and Submittals New Section

1-06.7(1) General

Shop drawing and submittal review by the Owner or Owner's representative will be limited to general design requirements only, and shall not relieve the Contractor from responsibility for errors or omissions or responsibility for consequences due to deviations from the Contract Documents. No changes may be made in any submittal after it has been reviewed except with written notice and approval from the Owner.

The Contractor shall review each submittal and provide approval in writing or by stamping, with a statement indicating that he has reviewed and approved the submittal, verified dimensional information, materials, catalog numbers, and similar data, confirmed that specified criteria has been met, and acknowledges that the product, method, or information will function as intended.

Shop drawing and submittal data for each item shall contain sufficient information on each item to determine if it is in compliance with the contract requirements.

The Owner will provide review services for a first and second review of each submittal item free from charge to the Contractor. The cost to provide additional reviews shall be charged to the Contractor by withholding the appropriate amounts from each progress payment.

Shop drawing and submittal items that have been installed in the work but have not been approved through the review process shall be removed, and an approved product shall be furnished, all at the Contractor's expense. Under no circumstances shall payment be made to the Contractor for materials not approved by the submittal process.

1-06.7(2) Required Information

Each submittal shall be submitted within 10 working days after contract execution to the Engineer.

Shop drawings and submittals shall be submitted electronically and shall contain the following information for all items:

1. Project Name.

2. Contractor.

3. Engineer.

4. Owner.

5. Applicable specification and drawing reference.

6. A stamp showing that the Contractor has checked the material or equipment for conformance with the contract requirements, coordination with other work on the job, and dimensional suitability.

7. A blank space for the Engineer to place a 3-inch by 4-inch review stamp.

8. Dimensions and weights.

9. Catalog information.

10. Manufacturer's specifications.

11. Special handling instructions.

12. Maintenance requirements.

13. Wiring and control diagrams.

14. List of contract exceptions.

15. Other information as required by the Engineer.

16. Installation and Operating Instructions.

1-06.7(3) Review Schedule

Shop drawings and submittals will be reviewed as promptly as possible and transmitted to the Contractor no later than 15 working days after receipt by

the Engineer. The Contractor shall revise and resubmit previously rejected submittals as necessary to obtain acceptance. Delays caused by the need for resubmittal shall not be a basis for an extension of contract time or delay damages. Two sets of shop drawings or one electronic response will be returned to the Contractor after review.

1-06.7(4) Substitutions

Any product or construction method that does not meet these specifications will be considered a substitution. Substitutions must be approved prior to installation or use on this project, as specified below.

1-06.7(4)A After Contract Execution

Within 10 working days after the date of the Notice of Award of Contract, Owner will consider formal requests from Contractor for substitution of product in place of those specified. Contractor shall submit two copies of request for substitution. Data shall include the necessary change in construction methods, including a detailed description of proposed method and related drawings illustrating methods. An itemized comparison of proposed substitution with product or method shall be provided.

In making a request for substitution, Contractor represents that he has personally investigated the proposed product or method and has determined that it is equal or superior to, in all respects, the product specified. All substitutions shall be reviewed and approved by the Tribe prior to incorporation into the project. Upon review and acceptance by the Owner, Contractor shall coordinate installation of accepted substitutions into the work, making changes that may be required for work to be completed. Contractor waives all claims for additional costs related to substitutions that consequently become apparent.

1-06.7(4)B Equivalent Materials

Mention of equipment or materials by brand name and/or model number is occasionally made in order to establish a basis of quality for certain items of material, equipment, or processes. Such mention is intended to include products of other manufacturers that will meet the design standards of the product mentioned.

If the Contractor desires to use products other than those specified under this “or approved equivalent” provision, he shall obtain the approval of the Owner and the Engineer before entering an order therefore. All substitutions or products to be used under the “or approved equivalent” provision shall

be reviewed and approved by the Tribe prior to incorporation into the project.

Wherever mention is made of a specific manufacturer, such mentions shall be treated as if the phrase “or approved equivalent” appears thereafter whether or not in fact it does. The terms “or equal” and/or “or approved equivalent” shall be considered synonymous.

Cost of all work under this section shall be included in the lump sum contract bid item of “Mobilization”.

1-06.7(5) Schedule B, C, and D Submittals

Bid Schedule B shop drawing submittals are required for all items to be provided by the Contractor on this Contract, per the Submittal Schedule below. Submit one PDF copy of the submittals to the Tribe via email. Send to:

SUBMITTAL REVIEW SCHEDULE

Submittals required for this project (Bid Schedule B, C, and D) include at a minimum:

a. PVC C900 pipe
b. DI Fittings
c. Gate Valves
d. Valve Boxes
e. Fire Hydrants
f. Pipe restraint
g. Water service materials – including service saddle, corp stops, service line, meter setter, angle meter stop, meter box, etc.
h. Imported gravel
i. Water test results

Additional submittals may be required during construction.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

The first three paragraphs of Section 1-07.1 are revised to read:

(******)

The Contractor shall always comply with all Federal, State, Tribal, or local laws, ordinances, and regulations that affect Work under the Contract. The Contractor shall indemnify, defend, and save harmless The Tulalip Tribes (including its Board of Directors and all other officers and employees) and the State (including the Governor, Commission, Secretary, and any agents, officers, and employees) against any claims that may arise because the Contractor (or any employee of the Contractor or Subcontractor or material person) violated a legal requirement.

The Contractor shall be responsible to immediately report to the Engineer any deviation from the contract provisions pertaining to environmental compliance, including but not limited to spills, unauthorized fill in waters of the Tribes including wetlands, unauthorized fill in waters of the State including wetlands, water quality standards, noise, air quality, etc.

The Contractor shall be responsible for the safety of all workers and shall comply with all appropriate state safety and health standards, codes, rules, and regulations, including, but not limited to, those promulgated under the Washington Industry Safety and Health Act RCW 49.17 (WISHA) and as set forth in Title 296 WAC (Department of Labor and Industries). In particular, the Contractor's attention is drawn to the requirements of WAC 296.800 which requires employers to provide a safe workplace. More specifically, WAC 296.800.11025 prohibits alcohol and narcotics from the workplace. The Contractor shall likewise be obligated to comply with all federal safety and health standards, codes, rules, and regulations that may be applicable to the Contract Work.

Section 1-07.1 is supplemented with the following:

(******)

Indian Preference and Tribal Ordinances

This project is located on the Tulalip Indian Reservation. It is the Contractor's responsibility to comply with all applicable Tribal laws, codes, ordinances, and regulations. The Contractor shall comply with them in accordance with Section 1-07.1.

Tribal Employment Rights Ordinances (TEROs), may utilize a variety of tools to encourage Indian employment. These tools may include, but are not limited to, TERO fees, Indian hiring preference, Indian-owned business subcontracting preference and/or an Indian training requirement. Other requirements may be a Tribal business license, a required compliance plan, and/or employee registration requirements. Every tribe is different and each may be willing to work cooperatively with the Contractor to develop a strategy that works for both parties. For specific details, the Contractor should contact The Tulalip Tribes' TERO Department at 6406 Marine Drive, Tulalip, Washington 98271, Office (360) 716-4747 or Facsimile (360) 716-0249. http://www.tulaliptero.com/.

The Tulalip Tribes of Washington has the sovereign authority over the lands of the Tulalip Indian Reservation and has the authority to enact and enforce its laws, ordinances, codes, and regulations. The Contractor shall comply and cooperate with the Tribes and its representatives. The costs related to such compliance shall be borne solely by the Contractor, who is advised to contact the tribal representative listed above, prior to submitting a bid, to assess the impact of compliance on the project.

Although Indian preference can be compelled and mandated by the Contracting Agency, there is no limitation whereby voluntary Contractor or Subcontractor initiated preferences are given, if otherwise lawful. 41 CFR 60-1.5(a)7 provides as follows:

Work on or near Indian reservations: It shall not be a violation of the equal opportunity clause for a construction or non-construction Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation in connection with employment opportunities on or near an Indian reservation. The use of the word near would include all that area where a person seeking employment could reasonably be expected to commute to and from in the course of a work day. Contractors or Subcontractors extending such a preference shall not, however, discriminate among Indians on the basis of religion, sex, or tribal affiliation, and the use of such a preference shall not excuse a Contractor from complying with the other requirements as contained in the August 25, 1981 Department of Labor, Office of Federal Contract Compliance Programs, Government Contractors Affirmative Actions Requirements.

TERO Participation shall be evaluated as follows:
Counting Tulalip Tribal Member Native American Owned Business or Native American Owned Business Participation.

When a Tulalip Tribal Member NAOB or NAOB participates in a contract, only the value of the work actually performed by the Tulalip Tribal Member NAOB or NAOB will be counted towards the Tulalip Tribal Member NAOB or NAOB subcontracting requirement.

1. Count the entire amount of the portion of the contract that is performed by the Tulalip Tribal-owned or Indian-owned enterprise or organization's own forces. Include the cost of supplies and materials obtained by the Tulalip Tribal Member NAOB or NAOB for the work of the contract, including supplies purchased or equipment leased by the Tulalip Tribal Member NAOB or NAOB (except supplies and equipment the lower-tiered Tulalip Tribal Member NAOB or NAOB purchases or leases from the Prime Contractor or its affiliates, unless the Prime Contractor is also a Tulalip Tribal Member NAOB or NAOB). Work performed by a Tulalip Tribal Member NAOB or NAOB, utilizing resources of the Prime Contractor or its affiliates will not be counted toward Tulalip Tribal-owned or Indian-owned enterprise or organization goals. In very rare situations, a Tulalip Tribal Member NAOB or NAOB may utilize equipment and or personnel from a non-Tulalip Tribal Member NAOB or NAOB other than the Prime Contractor or its affiliates. Should this situation arise, the arrangement must be short-term and must have prior written approval from the Contracting Agency. The arrangement must not erode a Tulalip Tribal Member NAOB or NAOB's ability to perform a Commercially Useful Function (see discussion of CUF, below).

2. Count the entire amount of fees or commissions charged by a Tulalip Tribal Member NAOB or NAOB firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance.

3. When a Tulalip Tribal Member NAOB or NAOB subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward the Tulalip Tribal Member NAOB or NAOB requirement only if the Tulalip Tribal Member NAOB or NAOB's lower-tier subcontractor is also a Tulalip Tribal Member NAOB or NAOB. Work that a Tulalip Tribal Member NAOB or NAOB subcontracts to a non-Tulalip Tribal Member NAOB or NAOB does not count toward the Tulalip Tribal Member NAOB or NAOB contracting requirement.

4. When a non-Tulalip Tribal Member NAOB or NAOB subcontractor further subcontracts to a lower-tier subcontractor or supplier who is a certified Tulalip Tribal-owned or Indian-owned enterprise or organization, then that portion of the work further subcontracted may be counted toward the Tulalip Tribal Member NAOB or NAOB requirement,

so long as it is a distinct clearly defined portion of the work of the subcontract that the Tulalip Tribal Member NAOB or NAOB is performing in a commercially useful function with its own forces.

5. Continue to count the work subcontracted to a decertified Tulalip Tribal-owned or Indian-owned enterprise or organization after decertification, provided the prime contractor had a subcontract in force before the decertification and the prime contractor's actions did not influence the Tulalip Tribal-owned or Indian-owned enterprise's or organization's decertification.

Commercially Useful Function

Payments to a Tulalip Tribal Member NAOB or NAOB will count toward Tulalip Tribal Member NAOB or NAOB requirements only if the Tulalip Tribal Member NAOB or NAOB is performing a commercially useful function on the contract.

1. A Tulalip Tribal Member NAOB or NAOB performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the Tulalip Tribal Member NAOB or NAOB must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, installing (if applicable), and paying for the material itself. Two-party checks are not allowed.

2. A Tulalip Tribal Member NAOB or NAOB does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of Tulalip Tribal Member NAOB or NAOB participation.

Trucking

Use the following factors in determining whether a Tulalip Tribal Member NAOB or NAOB trucking company is performing a commercially useful function:

1. The Tulalip Tribal Member NAOB or NAOB must be responsible for the management and supervision of the entire trucking operation for which it is listed on a particular contract.

2. The Tulalip Tribal Member NAOB or NAOB must itself own and, with its own workforce, operate at least one fully licensed, insured, and operational truck used on the contract.

3. The Tulalip Tribal Member NAOB or NAOB receives credit only for the total value of the transportation services it provides on the contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

4. For purposes of this paragraph, a lease must indicate that the Tulalip Tribal-owned or Indian-owned enterprise or organization has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the Tulalip Tribal Member NAOB or NAOB, so long as the lease gives the Tulalip Tribal Member NAOB or NAOB absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the Tulalip Tribal Member NAOB or NAOB.

5. The Tulalip Tribal Member NAOB or NAOB may lease trucks from another Tulalip Tribal Member NAOB or NAOB and may enter an agreement with an owner-operator who is certified as a Tulalip Tribal Member NAOB or NAOB. The Tulalip Tribal Member NAOB or NAOB who leases trucks from another Tulalip Tribal Member NAOB or NAOB or employs a Tulalip Tribal Member NAOB or NAOB owner-operator receives credit for the total value of the transportation services the lessee Tulalip Tribal Member NAOB or NAOB provides on the contract.

6. The Tulalip Tribal Member NAOB or NAOB may also lease trucks from a non-Tulalip Tribal Member NAOB or NAOB and may enter an agreement with an owner-operator who is a non-Tulalip Tribal Member NAOB or NAOB. The Tulalip Tribal Member NAOB or NAOB who leases trucks from a non-Tulalip Tribal Member NAOB or NAOB or employs a non-Tulalip Tribal Member NAOB or NAOB owner-operator is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The Tulalip Tribal Member NAOB or NAOB does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a Tulalip Tribal Member NAOB or NAOB.

7. In any lease or owner-operator situation, as described in paragraphs 5 and 6 above, the following rules shall apply:
    a. A written lease/rental agreement on all trucks leased or rented, showing the true ownership and the terms of the rental must be submitted and approved by the Contracting Agency prior to the

beginning of the work. The agreement must show the lessor's name, trucks to be leased, and agreed-upon amount or method of payment (hour, ton, or per load). All lease agreements shall be for a long-term relationship, rather than for the individual project. Does not apply to owner-operator arrangements.

b. Only the vehicle (not the operator) is leased or rented. Does not apply to owner-operator arrangements.

8. In order for Tulalip Tribal Member NAOB or NAOB project requirements to be credited, Tulalip Tribal Member NAOB or NAOB trucking firms must be covered by a subcontract or a written agreement approved by the Contracting Agency prior to performing its portion of the work.

Expenditures Paid to Other Tulalip Tribal Member Native American-Owned Business or Native American-Owned Business.

Expenditures paid to other Tulalip Tribal Member Native American-Owned Business or Native American-Owned Business for materials or supplies may be counted toward Tulalip Tribal Member NAOB or NAOB requirements as provided in the following:

Manufacturer

1. Counting
   If the materials or supplies are obtained from a Tulalip Tribal Member NAOB or NAOB manufacturer, count 100 percent of the cost of the materials or supplies toward Tulalip Tribal Member NAOB or NAOB requirements.

2. Definition
   To be a manufacturer, the firm operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

3. In order to receive credit as a Tulalip Tribal Member NAOB or NAOB manufacturer, the firm must have received an "on-site" review and been approved by TERO to operate as a Tulalip Tribal Member NAOB or NAOB manufacturing firm prior to bid opening. Use of a Tulalip Tribal Member NAOB or NAOB manufacturer that has not received an on-site review and approval by TERO prior to bid opening will result in the bid being declared non-responsive, unless the contribution of the manufacturer was not necessary to meet the project requirement. To schedule a review, the manufacturing firm must submit a written request to TERO and may not receive credit towards Tulalip Tribal Member NAOB or NAOB participation until the completion of the review. Once a

firm's manufacturing process has been approved in writing, it is not necessary to resubmit the firm for approval unless the manufacturing process has substantially changed. Information on approved manufacturers (per contract) may be obtained from TERO.

Regular Dealer

1. Counting
   If the materials or supplies are purchased from a Tulalip Tribal Member NAOB or NAOB regular dealer, 10 percent of the cost of the materials or supplies will count toward Tulalip Tribal Member NAOB or NAOB requirements.

2. Definition
   a) To be a regular dealer, the firm must own, operate, or maintain a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. It must also be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

   b) A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business, as provided elsewhere in this specification, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

   c) Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers.

Regular dealer status is granted on a contract-by-contract basis. To obtain regular dealer status, a formal written request must be made by the interested supplier (potential regular dealer) to TERO. TERO must be in receipt of this request at least 7 calendar days prior to bid opening. Included in the request shall be a full description of the project, type of business operated by the Tulalip Tribal Member NAOB or NAOB, and the manner the Tulalip Tribal Member NAOB or NAOB will operate as a regular dealer on the specific contract. Once the request is reviewed by TERO, the Tulalip Tribal Member NAOB or NAOB supplier requesting it will be notified in writing whether regular dealer status was approved. Tulalip Tribal Member Native American Owned Business or Native American Owned Business that

are approved as regular dealers for a contract (whenever possible) will be listed on the Tulalip Tribes TERO's Native American Owned Business (NAOB) registry Internet Homepage at: www.tulaliptero.com/Home/Contractors/NAOBRegistryReport.aspx prior to the time of bid opening. In addition, bidders may request confirmation of the Tulalip Tribal Member NAOB or NAOB supplier's approval to operate as a regular dealer on a specific contract by writing the TERO Department, 6406 Marine Drive, Tulalip, WA 98271 or by phone at (360) 716-4747. Use of a supplier that has not received approval as a regular dealer prior to bid opening will result in the bid being declared nonresponsive, unless the contribution of the regular dealer was not necessary to meet the project requirement.

Materials or Supplies Purchased from a Tulalip Tribal Member NAOB or NAOB

With respect to materials or supplies purchased from a Tulalip Tribal Member NAOB or NAOB who is neither a manufacturer nor a regular dealer, the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site may be counted toward the goal. No part of the cost of the materials and supplies themselves may be applied toward Tulalip Tribal Member NAOB or NAOB requirements.

Eligibility

To be eligible for award of the contract, the bidder must properly complete and submit the List of Tulalip Tribal Member NAOB Subcontractor(s) and or Supplier(s) and the List of NAOB Subcontractor(s) and or Supplier(s) which have been made a part of the bidder's Bid Proposal Form. The above named lists contained in Section IV of the Bid Proposal Form will be used by the Contracting Agency in determining whether the bidder's bid proposal satisfies the Tulalip Tribal Member NAOB and NAOB requirements.

For each Tulalip Tribal Member NAOB and NAOB described in the Bid Proposal Form Section IV – List of Lower-Tiered Subcontractor(s) and or Supplier(s), the bidder shall state the project role and work item in which that Tulalip Tribal Member NAOB or NAOB will participate. A general description of the work to be performed by the Tulalip Tribal Member NAOB or NAOB shall be included. If a Tulalip Tribal Member NAOB or NAOB will perform a partial item of work, the bidder shall also include a dollar amount for each partial item of work. The bidder shall also include a dollar amount for each Tulalip Tribal Member NAOB or NAOB listed in Section IV that will be applied towards meeting or exceeding the assigned Tulalip Tribal Member NAOB and NAOB contract requirements.

In the event of arithmetic errors in completing the Bid Proposal Form Section IV, the amount listed to be applied towards the requirement for each Tulalip Tribal Member NAOB and NAOB shall govern and the Tulalip Tribal Member NAOB and NAOB total shall be adjusted accordingly. The information and commitments demonstrated in the Bid Proposal Form Section IV shall become a condition of any subsequent award of a contract to that bidder and the Bid Proposal Form itself shall become a part of the subsequent contract.

The Contracting Agency shall consider as non-responsive and shall reject any bid proposal submitted that does not contain a Completed Section IV of the Bid Proposal Form or contains a List of Tulalip Tribal Member NAOB Subcontractor(s) and or Supplier(s) and or a List of NAOB Subcontractor(s) and or Supplier(s) that fails to demonstrate that the bidder will meet the Tulalip Tribal Member NAOB or NAOB contract requirements.

Procedures Between Award and Execution

After award of the contract, the successful bidder shall provide the additional information described below. A failure to comply shall result in the forfeiture of the bidder's proposal bond or deposit.

The Contracting Agency will notify the successful bidder of the award of the contract in writing and will include a request for a further breakdown of the Tulalip Tribal Member NAOB and NAOB information. After award and prior to execution of the contract, the bidder shall submit the following items:

1. Additional information for all successful Tulalip Tribal Member NAOB and NAOB as shown on the List of Tulalip Tribal Member NAOB Subcontractor(s) and or Supplier(s) and the List of NAOB Subcontractor(s) and or Supplier(s) included in Section IV of the Bid Proposal Form:

- Correct business name, federal employee identification number (if available), and mailing address.
- List of all bid items assigned to each successful Tulalip Tribal Member NAOB, or NAOB, including unit prices and extensions.
- Description of partial items (if any) to be sublet to each successful Tulalip Tribal Member NAOB or NAOB specifying the distinct elements of work under each item to be performed by the Tulalip Tribal Member NAOB or NAOB and including the dollar value of the Tulalip Tribal Member NAOB or NAOB.
- Submit evidence of certification issued by the Tulalip TERO Offices for the Tulalip Tribal Member NAOB or NAOB.

Total amounts shown for each Tulalip Tribal Member NAOB and NAOB shall not be less than the amount shown on the Bid Proposal Form Section IV. This submittal, showing the Tulalip Tribal Member NAOB and NAOB work item breakdown, when accepted by the Contracting Agency and resulting in contract execution, shall become a part of the contract. A breakdown that does not conform to the List of Tulalip Tribal Member NAOB Subcontractor(s) and or Supplier(s) and the List of NAOB Subcontractor(s) and or Supplier(s) included in Section IV of the Bid Proposal Form or that demonstrates a lesser amount of Tulalip Tribal Member NAOB or NAOB participation than that included in the Certification will be returned for correction. The contract will not be executed by the Contracting Agency until a satisfactory breakdown has been submitted.

Procedures After Execution Reporting

The Contractor shall submit a “Quarterly Report of Amounts Credited as Tulalip Tribal Member NAOB and NAOB Participation” (actual payments) on a quarterly basis for any calendar quarter in which Tulalip Tribal Member NAOB and NAOB work is accomplished or upon completion of the project, as appropriate. The quarterly reports are due on January 20th, April 20th, July 20th, and October 20th of each year. The dollars reported will be in accordance with the “Counting Tulalip Tribal Member Native American-Owned Business or Native American-Owned Business Participation” section of this specification.

In the event that the payments to a Tulalip Tribal Member NAOB or NAOB have been made by an entity other than the Prime Contractor (as in the case of a lower-tier subcontractor or supplier), then the Prime Contractor shall obtain the quarterly report, including the signed affidavit, from the paying entity and submit the report to the Contracting Agency.

Damages for Noncompliance

When a Contractor violates the Tulalip Tribal Member NAOB and or NAOB provisions of the contract, the Contracting Agency may incur damages. These damages consist of additional administrative costs including, but not limited to, the inspection, supervision, engineering, compliance, and legal staff time and expenses necessary for investigating, reporting, and correcting violations. Damages attributable to a Contractor’s violations of the Tulalip Tribal Member NAOB and or NAOB provisions may be deducted from progress payments due to the Contractor or from retainage withheld by the Contracting Agency as allowed by the Contract documents. Before any money is withheld, the Contractor will be provided with a notice of the basis of the violations and an opportunity to respond.

The Contracting Agency's decision to recover damages for a Tulalip Tribal Member NAOB and or NAOB provision violation does not limit its ability to suspend or revoke the Contractor's pre-qualification status or seek other remedies as allowed by tribal, federal or State law. In appropriate circumstances, the Contracting Agency may also refer the Contractor to Tribal, State, or Federal authorities for additional sanctions.

1-07.2 State Taxes

Section 1-07.2, including its sub-sections, in its entirety is revised to read:

(******)

The Tulalip Tribes of Washington is a federally recognized Indian Tribal government with a constitution and bylaws approved by the United States Secretary of the Interior. See: 65 Federal Register 13298, 13301 (March 13, 2000). As a recognized tribal government, The Tulalip Tribes of Washington and all of its governmental agencies, is a tax-exempt entity.

See: 26 USC § 7871, and Washington Administrative Code Excise Tax Rule 192 (WAC 458-20-192). The project is tax exempt from all Sales and/or Use Taxes for all materials and supplies incorporated in construction of the work that become a permanent part of the Project and some B&O taxes. Upon request, a Tax Exemption form may be obtained from The Tulalip Tribes.

The Washington State Department of Revenue has issued special rules on the State Sales Tax. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts.

The Contractor shall not collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will not add this sales tax to each payment to the Contractor.

1-07.3 Fire Prevention and Merchantable Timber Requirements

1-07.3(1) Fire Prevention Control and Countermeasures Plan

Section 1-07.3(1) is revised to read:

(******)

When the Work is in or next to Tribal, State, or Federal forests, the Contractor shall know and observe all laws and rules (Tribal, State, or Federal) on fire prevention and sanitation. The Contractor shall ask the Tulalip Tribes' Forestry Manager and local forest supervisor or regional manager, as applicable, to outline requirements for permits, sanitation, firefighting equipment, and burning.

The Contractor shall take all reasonable precautions to prevent and suppress forest fires. In case of forest fire, the Contractor shall immediately notify The Tulalip Tribes and the nearest forest headquarters of its exact site and shall make every effort to suppress it. If needed, the Contractor shall require his/her employees and those of any Subcontractor to work under forest officials in fire control efforts.

1-07.3(2) Merchantable Timber Requirements

Section 1-07.3(2) is revised to read:

(******)

When merchantable timber is to be cut, the Contractor shall obtain a permit from The Tulalip Tribes Forestry Department or the appropriate regional office of the State Department of Natural Resources and comply fully with the laws and regulations of The Tulalip Tribes and the State Forest Practices Act, as applicable.

No person may export from the United States, or sell, trade, exchange, or otherwise convey to any other person for the purpose of export from the United States, timber originating from the project.

The Contractor shall comply with the Forest Resources Conservation and Shortage Relief Amendments Act of 1993 (Public Law 103-45) and the Washington State Log Export Regulations (WAC 240-15).

1-07.5 Environmental Regulations

This Section is supplemented with the following:

(September 20, 2010 WSDOT GSP, Option 1.)

Environmental Commitments

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the various documents referenced in the Special Provision PERMITS AND LICENSES. Throughout the work, the Contractor shall comply with the following requirements:

(******)

The intentional bypass of stormwater from all or any portion of a stormwater treatment system is prohibited without the approval of the Engineer.

No Contractor staging areas will be allowed within 100 feet of any waters of the Tribe or State including wetlands.

(August 3, 2009 WSDOT GSP, Option 2)

Payment

All costs to comply with this special provision for the environmental commitments and requirements are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

1-07.5(1) General

The second paragraph of Section 1-07.5(1) is revised to read:

(******)

The Contractor shall be responsible to immediately report to the Engineer any deviation from the Contract provisions pertaining to environmental compliance, including but not limited to spills, unauthorized fill in waters of the Tribes including wetlands, unauthorized fill in waters of the State including wetlands, water quality standards, noise, air quality, etc.

Item 3 in the third paragraph of Section 1-07.5(1) is revised to read:

(******)

3. No equipment shall enter waters of the Tribes or waters of the State, except as may be specified in the Contract.

1-07.5(2) State Department of Fish and Wildlife

(******)

Delete the first paragraph of Section 1-07.5(2) and replace with:

In doing the Work located within the Tulalip Indian Reservation boundaries, the Contractor shall follow the laws, ordinances, rules and regulations of the Tulalip Tribes. Contractor shall consult with the Tulalip Tribes' Natural Resources Department for specific requirements in completing the Work on the reservation. In doing the Work located outside the boundaries of the Tulalip Tribes Reservation, the Contractor shall:

1-07.5(3) State Department of Ecology

The first paragraph of Section 1-07.5(3) is revised to read:

(******)

In doing the Work located within the Tulalip Indian Reservation boundaries, the Contractor shall follow the laws, ordinances, rules and regulations of the Tulalip Tribes. Contractor shall consult with the Tulalip Tribes' Natural Resources Department for specific requirements in completing the Work on the reservation. In doing the Work located outside the boundaries of the Tulalip Tribes Reservation, the Contractor shall:

Items 4 and 8 in the first paragraph of Section 1-07.5(3) are revised to read:

(******)

4. Perform Work in such a manner that all materials and substances not specifically identified in the Contract documents to be placed in the water do not enter waters of the Tribes or waters of the State, including wetlands. These include, but are not limited to, petroleum products, hydraulic fluid, fresh concrete, concrete wastewater, process wastewater, slurry materials, and waste from shaft drilling, sediments, sediment-laden water, chemicals, paint, solvents, or other toxic or deleterious materials.

8. Notify the Engineer and Ecology Department immediately should oil, chemicals, or sewage spill into waters of the Tribes or waters of the State.

1-07.5(4) Air Quality

The first paragraph of Section 1-07.5(4) is revised to read:

(******)

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 located outside the boundaries of the Tulalip Tribes Reservation. The Contractor shall consult with the Tulalip Tribes' Natural Resources Department to ascertain the applicable laws, ordinances, rules, and regulations governing the Work on the Tulalip Indian Reservation.

1-07.6 Permit and Licenses

Section 1-07.6 is supplemented with the following:

(******)

The Contractor shall obtain and maintain necessary Snohomish County Traffic Control and Construction Permit(s) throughout the duration of the project.

1-07.7 Load Limits

(March 13, 1995 WSDOT GSP, Option 6)

This Section is supplemented with the following:

If the sources of materials provided by the Contractor necessitate hauling over roads other than State Highways, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

1-07.11 Requirements for Nondiscrimination

1-07.11(2) Contractual Requirements

1-07.11(2)A Equal Employment Opportunity (EEO) Responsibilities

Under the heading "Title VI Responsibilities" of Section 1-07.11(2)A, items 4, 5 and 6 in the first paragraph are revised to read:

(******)

4. **Information and Reports** – The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by The

Tulalip Tribes to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to The Tulalip Tribes as appropriate and shall set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance** – In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, The Tulalip Tribes shall impose such Contract sanctions as it may determine to be appropriate, including, but not limited to:

    a. Withholding of payments to the Contractor under the Contract until the Contractor complies, and/or;
    b. Cancellation, termination, or suspension of the Contract, in whole or in part.

6. **Incorporation of Provisions** – The Contractor shall include the provisions of paragraphs (1) through (5) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Contractor shall take such action with respect to any Subcontractor or procurement as The Tulalip Tribes may direct as a means of enforcing such provisions including sanctions for noncompliance.

    Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or supplier as a result of such direction, the Contractor may request The Tulalip Tribes to enter into such litigation to protect the interest of The Tulalip Tribes.

1-07.11(10) Records and Reports

1-07.11(10)B Required Records and Retention

The first paragraph of Section 1-07.11(10)B is revised to read:

(******)

All records must be retained by the Contractor for a period of 3 years following acceptance of the Contract Work. All records shall be available at reasonable times and places for inspection by authorized representatives of either The Tulalip Tribes.

1-07.12 Federal Agency Inspection

Section 1-07.12 is supplemented with the following:

(******)

Indian Preference and Tribal Ordinances

This project is located on the Tulalip Indian Reservation. It is the Contractor's responsibility to contact the person and/or office listed in this special provision to determine whether any tribal laws or taxes apply. If the tribal laws and taxes do apply, the Contractor shall comply with them in accordance with Section 1-07.1.

Tribal Employment Rights Ordinances (TEROs), may utilize a variety of tools to encourage Indian employment. These tools may include, but are not limited to, TERO fees, Indian hiring preference, Indian-owned business subcontracting preference and/or an Indian training requirement. Other requirements may be a Tribal business license, a required compliance plan and/or employee registration requirements. Every tribe is different and each may be willing to work cooperatively with the Contractor to develop a strategy that works for both parties. For specific details, the Contractor should contact the Tulalip Tribes.

The state recognizes the sovereign authority of the tribe and supports the tribe's efforts to enforce its rightful and legal ordinances and expects the Contractor to comply and cooperate with the tribe. The costs related to such compliance shall be borne solely by the Contractor, who is advised to contact the tribal representative listed above, prior to submitting a bid, to assess the impact of compliance on the project.

Although Indian preference cannot be compelled or mandated by the Contracting Agency, there is no limitation on voluntary Contractor or Subcontractor initiated preferences if otherwise lawful. 41 CFR 60-1.5(a)7 provides as follows:

> Work on or near Indian reservations --- It shall not be a violation of the equal opportunity clause for a construction or non-construction Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation in connection with employment opportunities on or near an Indian reservation. The use of the word *near* would include all that area where a person seeking employment could reasonably be expected to commute to and from in the course of a work day. Contractors or Subcontractors extending such a preference shall not, however, discriminate among Indians on the

basis of religion, sex, or tribal affiliation, and the use of such a preference shall not excuse a Contractor from complying with the other requirements as contained in the August 25, 1981 Department of Labor, Office of Federal Contract Compliance Programs, Government Contractors Affirmative Actions Requirements.

1-07.14 Responsibility for Damage

Section 1-07.14 is revised to read:

(******)

The Tulalip Tribes, its Board of Directors, and all officers and employees, will not be responsible in any manner: for any loss or damage 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 Work; for injury to 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.

The Contractor shall be responsible for any liability imposed 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.

Subject to the limitations in this section, and RCW 4.24.115, the Contractor shall indemnify, defend, and save harmless The Tulalip Tribes, its Board of Directors from all claims, suits, or actions brought for injuries to, or death of, any persons or damages resulting from construction of the Work or in consequence of any negligence or breach of Contract 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 Tulalip Tribes may retain so much of the money due the Contractor as deemed necessary by The Tulalip Tribes to ensure the defense and indemnification obligations of this section until disposition has been made of such suits or claims.

Subject to the limitations in this section and RCW 4.24.115, the Contractor shall indemnify, defend, and save harmless any county, city, or region, its officers, and employees connected with the Work, within the limits of which county, city, or region the Work is being performed, all in the same manner and to the same extent as provided above for the protection of The Tulalip Tribes, its Directors, officers, and employees. The Tulalip Tribes may retain so much of the money due the Contractor as deemed necessary by the

Tulalip Tribes to ensure the defense and indemnification obligations of this section pending disposition of suits or claims for damages brought against the county, city, or district.

Pursuant to RCW 4.24.115, if such claims, suits, or actions result from the concurrent negligence of (a) the indemnitee or the indemnitee's agents or employees and (b) the Contractor or 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 and 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, runoff, 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 that may occur as a result of construction operations.

The Contractor shall exercise all necessary precautions throughout the life of the Project to prevent pollution, erosion, siltation, and damage to property.

The Contracting Agency will forward to the Contractor all claims filed against the Tulalip Tribes according to RCW 4.92.100 that are deemed to have arisen in relation to the Contractor's Work or activities under this Contract, and, in the opinion of the Contracting Agency, are subject to the defense, indemnity, and insurance provisions of the Contract. Claims will be deemed tendered to the Contractor and insurer, who has named The Tulalip Tribes and the State as a named insured or an additional insured under the Contract's insurance provisions, once the claim has been forwarded via certified mail to the Contractor. The Contractor shall be responsible to provide a copy of the claim to the Contractor's designated insurance agent who has obtained/met the Contract's insurance provision requirements.

Within 60 calendar days following the date a claim is sent by the Contracting Agency to the Contractor, the Contractor shall notify the Claimant, The Tulalip Tribes of the following:

a. Whether the claim is allowed or is denied in whole or in part, and, if so, the specific reasons for the denial of the individual claim, and if not denied in full, when payment has been or will be made to the claimant(s) for the portion of the claim that is allowed, or

b. If resolution negotiations are continuing. In this event, status updates will be reported no longer than every 60 calendar days until the claim is resolved or a lawsuit is filed.

If the Contractor fails to provide the above notification within 60 calendar days, then the Contractor shall yield to the Contracting Agency sole and exclusive discretion to allow all or part of the claim on behalf of the Contractor, and **the Contractor shall be deemed to have WAIVED any and all defenses, objections, or other avoidances to the Contracting Agency's allowance of the claim, or the amount allowed by the Contracting Agency**, under common law, constitution, statute, or the Contract and the Contract. If all or part of a claim is allowed, the Contracting Agency will notify the Contractor via certified mail that it has allowed all or part of the claim and make appropriate payments to the claimant(s) with Tribal funds.

Payments of Tribal funds by the Contracting Agency to claimant(s) under this section will be made on behalf of the Contractor and at the expense of the Contractor, and the Contractor shall be unconditionally obligated to reimburse the Contracting Agency for the "total reimbursement amount", which is the sum of the amount paid to the claimant(s), plus all costs incurred by the Contracting Agency in evaluating the circumstances surrounding the claim, the allowance of the claim, the amount due to the claimant, and all other direct and indirect costs for the Contracting Agency's administration and payment of the claim on the Contractor's behalf. The Contracting Agency will be authorized to withhold the total reimbursement amount from amounts due the Contractor, or, if no further payments are to be made to the Contractor under the Contract, the Contractor shall directly reimburse the Contracting Agency for the amounts paid within 30 days of the date notice that the claim was allowed was sent to the Contractor. In the event reimbursement from the Contractor is not received by the Contracting Agency within 30 days, interest shall accrue on the total reimbursement amount owing at the rate of 12 percent per annum calculated at a daily rate from the date the Contractor was notified that the claim was allowed. The Contracting Agency's costs to enforce recovery of these amounts are additive to the amounts owing.

The Contractor specifically assumes all potential liability for actions brought by employees of the Contractor and, solely for the purpose of enforcing the defense and indemnification obligations set forth in Section 1-07.14, the Contractor specifically waives any immunity granted under the State industrial insurance law, Title 51 RCW. This waiver has been mutually negotiated by the parties. The Contractor shall similarly require that each Subcontractor it retains in connection with the project comply with the terms

of this paragraph, waive any immunity granted under Title 51 RCW, and assume all liability for actions brought by employees of the Subcontractor.

1-07.15 Temporary Water Pollution Prevention

Section 1-07.15 is supplemented with the following:

(******)

In an effort to prevent, control, and stop water pollution and erosion within the project, thereby protecting the Work, nearby land, streams, and other bodies of water, the Contractor shall perform all Work in strict accordance with all Tribal, Federal, State, and local laws and regulations governing waters of the Tribes and waters of the State, as well as permits acquired for the project.

The Contractor shall perform all temporary water pollution/erosion control measures shown in the Plans, specified in the Special Provisions, proposed by the Contractor and approved by the Engineer, or ordered by the Engineer as Work proceeds.

1-07.15(1) Spill Prevention, Control, and Countermeasures Plan

Under the heading “SPCC Plan Element Requirements” of Section 1-07.15(1), item 2 of the first paragraph is revised to read:

(******)

Spill Reporting: List the names and telephone numbers of the Tribal, Federal, State, and local agencies the Contractor shall notify in the event of a spill.

1-07.16 Protection and Restoration of Property

1-07.16(2) Vegetation Protection and Restoration

Section 1-07.16(2) is supplemented with the following:

(August 2, 2010 WSDOT GSP, Option 1)

Vegetation and soil protection zones for trees shall extend out from the trunk to a distance of 1 foot radius for each inch of trunk diameter at breast height.

Vegetation and soil protection zones for shrubs shall extend out from the stems at ground level to twice the radius of the shrub.

Vegetation and soil protection zones for herbaceous vegetation shall extend to encompass the diameter of the plant as measured from the outer edge of the plant.

1-07.16(4) Archaeological and Historical Objects

Section 1-07.16(4) is supplemented with the following:

(******)

A. The Contractor is advised that construction work within this Contract is subject to the provisions of state and federal laws and regulations pertaining to the preservation of archaeological and cultural resources.

B. In the event that any archaeological or cultural resources are uncovered during the course of construction, all work shall cease until an inspection and evaluation of the site has been made by an archaeologist to insure that archaeological data are properly preserved. The Contractor shall notify the Owner who will in turn notify the proper authorities.

C. The Contractor should anticipate reasonable delays while the archaeological investigations are being made and should make allowance for these delays under the appropriate bid items. No additional compensation will be allowed.

D. The Owner will determine if provisions for a cultural resources representative to be on site during construction activities is required, at no cost to the Contractor.

1-07.17 Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

(April 2, 2007 WSDOT GSP Option 1)

Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor’s convenience:

Telephone/Communication Verizon Tim Rennick OSP Engineering P.O. Box 1003 Everett, WA 98200 (425) 327-8118	Telephone/Communication Tulalip Technology Data Services Travis Hall 8825 Quil Ceda Boulevard, Suite O Tulalip, WA 98271 (360) 716-8008
Telephone/Communication Tulalip Broadband Richard Brown 8825 Quil Ceda Boulevard, Suite O Tulalip, WA 98271 Office: (360) 716-3277 Cell: (425) 754-033	Telephone/Communication Frontier Communications Adam Diaz 1800 41st Street Everett, WA 98201 Office (425) 261-0134 Cell (425) 614-9754
Water Tulalip Utilities Mike Leslie 3015 Mission Beach Rd Tulalip, WA 98271 Office: (360) 716-4840	Power Snohomish Co. Public Utilities District (PUD) Kallen Shaughnessy-Randall 210 East Division Street Arlington, WA 98223 (425) 783-4370

This Section is supplemented with the following:

(******)

The temporary removal, replacement, bracing or holding of any utility or structure, including power and telephone poles, required to accomplish the work, shall be included in the contract price(s) for the bid item(s) involved unless otherwise stated in the Plans or these Special Provisions. Resetting existing structures to grade shall be performed by the Contractor.

The Contractor is responsible for coordinating with the utility companies and providing adequate advance notice to avoid schedule delays.

1-07.17(1) Utility Construction, Removal, or Relocation by the Contractor

Add the following new sections:

(******)

1-07.17(1)A Disruptions to Utility Services New Section

When any Work is being considered by the Contractor in the vicinity of an existing utility, the Contractor shall so inform an authority of the particular utility in ample time so that the utility involved and the Contractor may take

any precautions necessary to facilitate construction in the vicinity of the utility, and thereby protect that particular utility from damage.

Where the construction crosses or is adjacent to existing utilities, the Contractor shall exercise extreme care to protect such utilities from damage. Additionally, the Contractor shall review the Plans, the project site and familiarize himself with the various utilities and plan his construction activities in recognition that the very close proximity of existing utilities to the proposed work will adversely affect production rates of installation of the various planned improvements. The Contractor is hereby advised and cautioned that the location of existing utilities will be cause for considerable and extreme care and due diligence on the part of the Contractor. As such, work production rates are anticipated to be significantly impacted by their presence and normal production rates should not be anticipated, during construction by the Contractor for work in these areas. The Contractor shall anticipate minor alignment adjustments will also be required to accommodate the installation of utilities.

No disruption to existing utility services is anticipated for completion of this project. If the Contractor determines that any utility shutdown is necessary to perform the work, the shutdown shall be requested by the Contractor a minimum of 7 working days in advance of the proposed shutdown. If the Contracting Agency approves the shutdown, it will be approved by the Contracting Agency a minimum of 3 working days before the shutdown. The Contractor shall provide a minimum of 2 working days written notice of the approved shutdown to all affected customers.

The shutdown shall be performed by Contracting Agency Utility staff. Contractor personnel shall not operate any existing valves in the system.

The Contractor shall minimize the duration of any utility shutdown, but in no case shall the shutdown time exceed 6 hours.

All costs required to comply with the work restrictions and requirements of this section shall be included in the contract price(s) for the bid item(s) involved.

1-07.17(1)B Locate Existing Utility Structure or Monument **New Section**

A reasonable attempt has been made to locate known existing utilities; however, the exact location, and/or depth is unknown in most instances. It shall be the responsibility of the Contractor to locate existing utilities, to include their respective depths.

Where called out in the Plans or directed by the Engineer, the Contractor shall physically locate existing water valve boxes, sanitary sewer manholes, and survey monuments. These structures may be located under existing asphalt pavement or bituminous surface treatment, or otherwise obscured. All location steps shall be performed in the presence of the Owner's inspector or designated representative. To physically locate these structures, the Contractor shall perform the following steps in order. The contractor shall perform only the necessary steps to locate the utility structure; once the structure is found, the Contractor is not required to complete all subsequent steps.

1. The Contractor shall call for utility locates at all locations where a utility structure to be located is shown on the Plans and have all utilities marked in the field.

2. Using the painted utility locates as a guideline, the Contractor shall use metal detection to attempt to locate the utility structures. The Contractor shall use a metal detector with depth measuring capability that can detect utility pipes and structures at a minimum depth of 48 inches.

3. For utility structures that cannot be located by metal detection, the Contractor shall employ Ground Penetrating Radar (GPR) to attempt to locate the utility structures. The GPR system shall be operated by a firm with a minimum of 5 years' experience operating GPR systems for location of underground utilities.

4. For sanitary sewer structures that cannot be located by GPR, or as an alternate to GPR, the Contractor may elect to perform a video inspection from upstream and/or downstream manholes to measure the distance from exposed structure(s) to the buried manhole(s). No additional payment will be made for video inspection.

5. For monuments that cannot be located by other means, the Contracting Agency may authorize the Contractor to locate the monument through research and field survey using the services of a Licensed Surveyor as described in Section 1-05.4. If so authorized, the survey work will be paid by force account under the Bid Item for "Licensed Surveying".

6. For utility structures or monuments that cannot be located by any of the other means identified above, the Contracting Agency may elect

one of the following methods to address the utility structure or monument:

a. No further action.
b. Potholing. If so directed by the Contracting Agency, the Contractor shall pothole the area using vacuum excavation methods.
c. Cut in a new water valve. For water valves that cannot be located, if so directed by the Contracting Agency, the Contractor shall cut in a new water valve at the location specified by the Contracting Agency. Payment for valve installation will be made by equitable adjustment in accordance with Section 1-09.4, and may be paid under the Bid Item for “Minor Change”.

For methods a through c above, if the Contractor exhausts all other applicable locate methods as witnessed by the Owner’ s inspector or designated representative, payment for the item will be made under “Locate Existing Utility Structure or Monument” or “Pothole Existing Utility”.

Measurement

No specific unit of measurement shall apply to the lump sum item of locate existing utility structure or monument.

Measurement for “Pothole Existing Utility” will be per each.

Payment

Payment will be made in accordance with Section 1-09.6 for the following bid item when included in the proposal:

“Locate Existing Utility Structure or Monument”, per lump sum.

The lump sum contract price for “Locate Existing Utility Structure or Monument” shall be full pay for all costs to physically locate each structure called out in the plans including but not limited to locating water valves, monuments, and manholes, following all required steps as outlined in Section 1-07.17(1)B to locate each structure, including, but not limited to, utility locating service, metal detection, Ground Penetrating Radar, and video inspection.

“Pothole Existing Utility,” per each.

The unit contract price per each for “Pothole Existing Utility” shall be full compensation for all costs incurred by the Contractor in excavating,

vactoring, measuring, recording depth of cover, type of material, diameter of pipe/conduit, recording the station and offset of the pothole and submitting this information to the Contracting Agency, and backfilling pothole locations where shown on the Plans or directed by the Contracting Agency.

1-07.17(2) Utility Construction, Removal, or Relocation by Others

(******)
Delete this Section in its entirety and replace with the following:

Any authorized agent of the Contracting Agency or utility owners may enter the right-of-way to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such effort and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

The Contractor shall carry out the Work in a way that will minimize interference and delay for all forces involved. Any costs incurred prior to the utility owners anticipated completion (or if no completion is specified, within a reasonable period of time) that results from the coordination and prosecution of the Work regarding utility adjustment, relocation, replacement, or construction shall be at the Contractor's expense as provided in Section 1-05.14.

The Contractor shall coordinate all work with the various utility companies and their Contractors. The Contractor, when scheduling his work crews, shall use production rates that anticipate the need to provide block-outs and/or gaps in the driveways, curb and gutter, and/or pavement sections where existing utility structures currently exist, and then come back at a later time to construct the missing sections after the utility has been relocated or adjusted by the applicable utility. The Contractor shall assume that the utilities will not be relocated prior to construction of this project nor at his convenience during the course of construction. As such, the Contractor shall assume such, and schedule his crews and his subcontractors to remobilize to the various sites and temporarily relocate his or his subcontractor's crews to other areas of the project and complete other unaffected portions of the project in order to coordinate the relocation of the utilities with the various utility companies. There shall be no additional money or time due the Contractor for leaving gaps or for buck-out construction, remobilization, demobilization, out of sequence construction, relocation of work crews, and construction of curb, gutter, or driveway patches after the utility has been relocated. It is the intent of these Specifications that the Contractor diligently pursue other work on the site

when such conflicts occur and recognize and plan for the inherent inefficiencies and impaired production rates.

Payment

All costs to comply with this Section and repair specified in this Section, unless otherwise stated, are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the bid prices of the Contract.

1-07.23 Public Convenience and Safety

1-07.23(1) Construction Under Traffic

(******)

Work Zone Clear Zone

The Work Zone Clear Zone (WZCZ) applies during working and nonworking hours. The WZCZ applies only to temporary roadside objects introduced by the Contractor's operations and does not apply to preexisting conditions or permanent Work. Those work operations that are actively in progress shall be in accordance with adopted and approved Traffic Control Plans, and other contract requirements.

During nonworking hours equipment or materials shall not be within the WZCZ unless they are protected by permanent guardrail or temporary concrete barrier. The use of temporary concrete barrier shall be permitted only if the Engineer approves the installation and location.

During actual hours of work, unless protected as described above, only materials absolutely necessary to construction shall be within the WZCZ and only construction vehicles absolutely necessary to construction shall be allowed within the WZCZ or allowed to stop or park on the shoulder of the roadway.

The Contractor's nonessential vehicles and employees private vehicles shall not be permitted to park within the WZCZ at any time unless protected as described above.

Deviation from the above requirements shall not occur unless the Contractor has requested the deviation in writing and the Engineer has provided written approval.

Minimum WZCZ distances are measured from the edge of traveled way and will be determined as follows:

Regulatory Posted Speed	Distance From Traveled Way (Feet)
35 mph or less	10
40 mph	15
45 to 50 mph	20
55 to 60 mph	30
65 mph or greater	35

Minimum Work Zone Clear Zone Distance

(******)
This Section is supplemented with the following:

Lane closures are subject to the following restrictions:

All streets within the Hermosa Beach neighborhood: 8:00 a.m. to 4:00 p.m.

The following special traffic requirements shall be adhered to during all phases of construction:

No roads shall be entirely closed for this project. At a minimum, a single lane of traffic shall be maintained open at all times, with flaggers provided to alternate traffic where required. The contractor shall comply with all requirements of the approved Traffic Control Permit for each work location.

A safe pedestrian access shall be provided at all times through the project area. All lane closures shall be coordinated with the adjacent businesses, other contractors working within the project vicinity, local transit agencies, and approved by the Contracting Agency.

The Contractor shall notify all property owners and tenants of detours, street and alley closures, or other restrictions that may interfere with access. Notification shall be at least forty-eight (48) hours in advance for residential property, and at least seventy-two (72) hours in advance for commercial property. Residential driveway access restrictions shall be limited to no more than 2 hours of closure at a time.

Emergency traffic, such as police, fire, and disaster units, shall be provided access at all times. In addition, the Contractor shall coordinate Contractor

activities with all disposal firms and transit bus service that may be operating in the project area.

If the Engineer determines the permitted closure hours adversely affect traffic, the Engineer may adjust the hours accordingly. The Engineer will notify the Contractor in writing of any change in the closure hours.

Lane closures are not allowed on any of the following:

1. A holiday,

2. A holiday weekend; holidays that occur on Friday, Saturday, Sunday or Monday are considered a holiday weekend. A holiday weekend includes Saturday, Sunday, and the holiday.

3. After 3:00 p.m. on the day prior to a holiday or holiday weekend.

1-07.27 No Waiver of State's Legal Rights

Section 1-07.27 including title is revised to read:

(******)

1-07.27 No Waiver of The Tulalip Tribes' Legal Rights

The Tulalip Tribes shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the Work and payment therefore from showing the true amount and character of the Work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the Work or materials do not conform, in fact, to the Contract. The Tulalip Tribes shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate, and payment in accordance therewith, from recovering from the Contractor and the Sureties such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by The Tulalip Tribes, nor any payment for the whole or any part of the Work, nor any extension of time, nor any possession taken by The Tulalip Tribes shall operate as a waiver of any portion of the Contract or of any power herein reserved or any right to damages herein provided, or bar recovery of any money wrongfully or erroneously paid to the Contractor. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor and The Tulalip Tribes recognize that the impact of overcharges to The Tulalip Tribes by the Contractor resulting from antitrust

law violations by the Contractor's suppliers or Subcontractors adversely affects The Tulalip Tribes rather than the Contractor. Therefore, the Contractor agrees to assign to The Tulalip Tribes any and all claims for such overcharges.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters — New Section

(May 25, 2006 APWA GSP)

1-08.0(1) Preconstruction Conference

(October 10, 2008 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To establish normal working hours for the work;
5. To review safety standards and traffic control; and
6. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

Add the following new section:

1-08.0(2) Hours of Work **New Section**

(December 8, 2014 APWA GSP)

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than *** 5 days *** prior to the day(s) the Contractor is requesting to change the hours.

If the Contracting Agency approves such a deviation, such approval may be subject to certain other conditions, which will be detailed in writing. For example:

1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)

2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.

3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.

4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.

5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll

(******)

Section 1-08.0(2), the last paragraph, No. 5, is revised to read as follows:

5. Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll.

1-08.1 Subcontracting

Section 1-08.1 is revised as follows:

(******)

Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004 EF) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed.

A Subcontractor or lower tier Subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet Work (Form 421-012 EF), and

2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (Form 420-004 EF), and

3. An approved Tulalip Tribes TERO Compliance Plan for the Subcontractor.

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than 3 years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all Subcontractors and lower tier Subcontractors shall be available and open to similar inspection or audit for the same time period.

1-08.3 Progress Schedule

Section 1-08.3 is supplemented with the following:

(******)

The Contractor shall submit a construction schedule to the Contracting Agency within 10 calendar days of award of contract. The Contracting Agency will have the right to review the schedule, and must approve the schedule prior to issuing Notice to Proceed.

The weekly schedule updates shall clearly identify the critical path items of the work.

1-08.4 Prosecution of Work

Delete this Section and replace it with the following:

(July 23, 2015 APWA GSP)

1-08.4 Notice to Proceed and Prosecution of Work

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

Section 1-08.4 is supplemented with the following:

(******)

Construction Coordination Meetings

The Contracting Agency or its authorized representative will schedule and administer construction coordination meetings on a weekly basis with the Engineer, Contractor, subcontractors, and other interested parties. The Contractor shall actively and regularly prepare for, attend, and participate in these meetings throughout the duration of the project until Contract Completion. The purpose of these meetings is to coordinate and facilitate communication between the parties to facilitate the performance of the respective responsibilities and the successful completion of the project.

The Contracting Agency will establish the weekly meeting times, dates and location with agreement from the Engineer and Contractor.

Project meetings shall be held at a location designated by the Contracting Agency.

The Contracting Agency will make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within 5 working days to participants and those affected by decisions made at meetings.

Attendance: Contracting Agency, Engineer, Contractor's Project Manager, and Project Superintendent all as appropriate to address agenda topics for each meeting. Major subcontractors and suppliers shall attend when requested by the Contracting Agency, Engineer, or Contractor.

The specific administrative and procedural requirements for project meetings including, but not limited to, Safety, RFI Status, Contract Submittals, Materials Submittals, RFPs, Field Directives, Change Orders, project schedule, and 2-week look ahead, Working Days, Critical path items, Contract compliance, Pay applications, and open discussion.

Safety

All parties agree that they are responsible for compliance with all tribal, local, and federal laws, regulations, and standards that pertain to safety, as those laws, regulations, and standards apply to its employees. All parties recognize that the responsibility for employee safety rests with each employer respectively. Each contractor (prime or sub) shall be responsible for the safety of its own employees. The Contracting Agency accepts no responsibility for, nor will it provide any safety consultation, monitoring, or enforcement to any contractor on the site concerning the safety of

contractor's employees. Any safety equipment needed on the job, including but not limited to, PPE, shall be furnished by each contractor for its employees.

The Contracting Agency will regard safety on this project to be of the utmost importance. Under no conditions shall safety requirements be waived for the sake of cost, schedule, or convenience. SAFETY MAY BE USED AS CRITERIA FOR APPROVAL OF PAY APPLICATIONS. Unsafe conditions, lack of proper and/or untimely documentation and submittals, and lack of adherence to safety rules and requirements will not be tolerated.

Each contractor, AS A MINIMUM, shall follow all tribal, local, and federal laws regarding worker safety. This shall include all requirements of OSHA and referenced standards therein included.

The Contracting Agency may, at various times, request voluntary OSHA inspections. Each contractor shall immediately correct and respond to any violations in writing to the Contracting Agency, and to the appropriate agency.

Indiscriminate accumulations of debris, waste, or scrap in work areas will not be permitted. (Areas must be designated for storage or disposal.) All materials, tools, and equipment must be stored in an orderly manner in designated areas.

Safety Program

A. Contractor shall submit, within 10 days of Notice to Proceed, a copy of its company safety program including jobsite-specific safety plans. This program shall incorporate all lower-tier subcontractor safety information or separate policies shall be submitted for all lower-tier subcontractors used on the project. This safety policy shall conform to all OSHA requirements and shall include as follows:

B. A Hazard Communications Program, including site specific Materials Safety Data Sheets (MSDS) for all chemicals used by Contractor and its subcontractors.

    1. Provisions for continual training of all on-site employees. This shall be done by holding weekly safety toolbox talks, documented by signed attendance sheets with safety topic submitted to the Contracting Agency at each weekly project meeting.
    2. Weekly jobsite safety inspections shall be completed by each Contractor.

3. Designation and continual training of competent persons for the project.
4. Contractor shall provide services of a competent safety person (as defined by OSHA) for the project to inspect the project for safety hazards related to their Work. The safety person should not be one of the superintendents dedicated to this Project; however, the safety person shall be on-site whenever Work is being performed by Contractor. The safety person shall attend the Project coordination meetings.
5. Contractor, with assistance from all contractors' safety persons, shall perform a monthly total Project safety audit conducted by a company safety officer or independent consultant of the Contractor. Results of the safety audit shall be submitted to the Contracting Agency and distributed to all contractors the same day the audit is conducted by Contractor. If a contractor does not immediately address any observed or noted safety concern, Contractor's company safety officer or independent consultant shall contact the Owner, through the Contracting Agency. Contractor's company safety officer or independent consultant, with assistance from Contractor's competent safety person, shall record all accidents for the Project and report their findings to the Owner, through the Contracting Agency.
6. Provisions for enforcement of the safety policies by Site Foreman, Superintendent, and/or Project Manager.
7. Documentation that each on-site employee has been trained in general safety and has been informed of the location of the Safety Program, Haz-Com Program, and Emergency procedures on this project.

Submittals

A. Company safety programs, as described above, shall be submitted to the Contracting Agency within ten days of Notice to Proceed or Letter of Intent to Award. Additions to the program, such as documentation of training as new employees arrive at the site, shall be forwarded to the Contracting Agency. All contractor Safety Programs, and Haz-Com Programs, with MSDS Sheets, will be kept in one central location within the Contractor's office throughout the duration of the project.

B. Contractor is required to conduct and all employees are required to attend a "Tool Box"-type safety meeting once a week. These meetings may either be presided over by Contractor's foreman or another competent representative designated by Contractor. The Contracting Agency's personnel are available to participate in these safety meetings.

Contractor will be responsible to submit WEEKLY tool box safety meeting minutes to the Contracting Agency while Contractor has employees on-site.

C. All weekly inspections will be documented by Contractor and submitted to the Owner, through the Contracting Agency. Contractor shall immediately correct all deficiencies and submit a list of corrective actions within 1 working day, or sooner if required, of safety inspection.

D. Subject-specific daily and/or weekly inspections by Contractor, including temporary electric, crane, or other work activities as required, shall be timely submitted to the Owner through the Contracting Agency.

Training

A. Contractor shall ensure that employee designated as Project Competent Person has been fully trained for this task and has the full authority to take corrective action when required.

B. Contractor shall provide continual training to Project Competent Person, Superintendent, and Foreman as required by Tribal or OSHA standards.

C. The Contracting Agency may recommend General Safety Topics to enable Contractor's supervising personnel to train employees if a Contractor requests such assistance.

1-08.5 Time for Completion

(******)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and

amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and

2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:

    a. Certified Payrolls (per Section 1-07.9(5)).
    b. Material Acceptance Certification Documents.
    c. Final Contract Voucher Certification.
    d. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors.
    e. Property owner releases per Section 1-07.24.
    f. An original signed and notarized Final Waiver and Release of Claim Form from the Contractor.
    g. Original signed and notarized Final Waiver and Release of Claim Form for all Subcontractors and Material Suppliers regardless of tier.
    h. Affidavit from the Tulalip Tribes TERO office that the TERO Fee for the Project has been paid.

Section 1-08.5 is supplemented with the following:

(******)

This project shall be physically completed within 80 working days.

1-09 MEASUREMENT AND PAYMENT

1-09.2 Weighing Equipment

1-09.2(1) General Requirements for Weighing Equipment

(July 23, 2015 APWA GSP, Option 2)

Revise item 4 of the fifth paragraph to read:

4. Test results and scale weight records for each day's hauling operations are provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027, Scaleman's Daily Report, unless the printed ticket contains the same information that is on the Scaleman's Daily Report Form. The scale operator must provide AM and/or PM tare weights for each truck on the printed ticket.

1-09.6 Force Account

(October 10, 2008 APWA GSP)

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by Engineer.

1-09.7 Mobilization

Section 1-09.7 is supplemented with the following:

(******)

Payment for Mobilization will be made from two-thirds of the lump sum amount named in the Bid Schedule, which price shall be complete compensation for all mobilization of employees, equipment and materials, and preparation of all necessary submittals as well as the bonds, insurance, site improvements etc. all in conformance with the Contract Documents. In calculating the partial payment due for mobilization, percent completion will be based on the sum of completed work. Payment for Demobilization will be made from one-third of the lump sum amount based on completion of all work which payment will be considered complete compensation for removal

of all equipment, materials, labor hauling, cleanup, restoration work etc. required to remove all of the Contractor's operation and cleanup the site in accordance with the Contract Documents. In calculating the partial payment due for demobilization, percent completion will be based on the sum of completed work.

1-09.8 Payment for Material on Hand

The last paragraph of Section 1-09.8 is revised to read:

(August 3, 2009 WSDOT GSP, Option 1)

The Contracting Agency will not pay for material on hand when the invoice cost is less than $2,000. As materials are used in the work, credits equaling the partial payments for them will be taken on future estimates. Each month, no later than the estimate due date, the Contractor shall submit a letter to the Engineer that clearly states: 1) the amount originally paid on the invoice (or other record of production cost) for the items on hand, 2) the dollar amount of the material incorporated into each of the various work items for the month, and 3) the amount that should be retained in material on hand items. If work is performed on the items and the Contractor does not submit a letter, all of the previous material on hand payment will be deducted on the estimate. Partial payment for materials on hand shall not constitute acceptance. Any material will be 12 rejected if found to be faulty even if partial payment for it has been made.

1-09.9 Payments

Revise the first paragraph to read:

(******)

The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment. For items Bid as lump sum, with a bid price of more than or equal to $20,000, the Contractor shall submit a breakdown of the lump sum price in sufficient detail for the Engineer to determine the value of the Work performed on a monthly basis. Lump sum breakdowns shall be provided to the Engineer no later than the date of the preconstruction conference.

Delete the third paragraph and replace it with the following:

(******)

Progress payments for completed work will be based upon progress estimates prepared by the Contractor. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made no later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the Final Payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form – the approximate quantity of acceptable units of work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form – partial payment for lump sum Bid items will be a percentage of the price in the Proposal based on the Engineer's determination of the amount of Work performed, with consideration given to, but not exclusively based on, the Contractor's lump sum breakdown for that item.
3. Change Orders – entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1);
2. The amount of Progress Payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.

Payments will be made by warrants, issued by the Contracting Agency's fiscal officer, against the appropriate fund source for the project. Payments received on account of work performed by a subcontractor are subject to the provisions of RCW 39.04.250.

1-09.11 Disputes and Claims

Section 1-09.11 is revised to read:

(******)

Forum For Equitable Relief

The Tribal Court of the Tulalip Tribes of Washington shall have exclusive jurisdiction over any action or proceeding for any injunction or declaratory judgment concerning any agreement or performance under the Contract Documents or in connection with the Project. Any such action or proceeding arising out of or related in any way to the Contract or performance thereunder shall be brought only in the Tribal Court of the Tulalip Tribes of Washington and the Contractor irrevocably consents to such jurisdiction and venue. The Contract shall be governed by the law of the State of Washington.

Forum For Money Damages

The Tribal Court of the Tulalip Tribes of Washington shall be the exclusive jurisdiction for any action or proceeding for any injunction or declaratory judgment concerning any agreement or performance under the Contract Documents or in connection with the Project. The Tribal Court of the Tulalip Tribes of Washington shall be the exclusive jurisdiction for any action or proceeding by the Contractor or the Contractor's Surety, if applicable, for any money damages concerning any agreement or performance under the Contract Documents or in connection with the Project.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.1 General

The first paragraph of Section 1-10.1 is revised as follows:

(******)

The Contractor shall provide construction staging and traffic control plans to The Contracting Agency for review and approval. Plans shall be submitted for review no more than 7 calendar days following award of the contract. Notice to Proceed will not be given until the traffic control plans are approved. Plans shall be in accordance with the MUTCD and the WSDOT "Work Zone Traffic Control Guidelines." A minimum of 10 working days will be required for review. Whenever traffic control devices are located on state highways or affect traffic on state highways, the temporary traffic control plans will also be reviewed and approved by WSDOT. Plans will be developed by the Traffic Control Supervisor or a licensed civil engineer. These plans shall supplement Construction Staging Plans. Construction

Staging Plans shall be prepared by the Contractor or a licensed civil engineer. The traffic control plans as provided by the Contractor shall include and not be limited to the following information:

- Minimum lane widths provided for vehicular travel.
- Location, legend, and size for all signage.
- Location of flagger stations.
- Lane closure tapers.
- Identification and spacing for traffic control devices.
- Identification of pedestrian access routes.

The Contractor shall provide flaggers, signs, and other traffic control devices not otherwise specified as being furnished by the Contracting Agency. The Contractor shall erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage as a result of the Contractor's operations which may occur on highways, roads, streets, sidewalks, or paths. No work shall be done on or adjacent to any traveled way until all necessary signs and traffic control devices are in place.

Construction Staging Plans as provided by the Contractor shall separate the project into stages of construction that when completed will include all of the work included in the contract. Construction Staging Plans shall include and not be limited to the following information:

- Delineation of areas where work will occur in each stage.
- Delineation including lane widths for vehicular travel lanes that will be maintained during each stage of construction.
- A description of the work that will be completed within each stage.
- Location(s) for access to and from the work area(s).

1-10.2 Traffic Control Management

1-10.2(1) General

(January 10, 2022 WSDOT GSP, Option 1)

The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
https://www.nwlett.edu

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
https://www.esc.org

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701
https://altssa.com/training

Integrity Safety
13912 NE 20th Ave.
Vancouver, WA 98686
(360) 574-6071
https://www.integritysafety.com

US Safety Alliance
(904) 705-5660
https://www.ussafetyalliance.com

K&D Services Inc.
2719 Rockefeller Ave.
Everett, WA 98201
(800) 343-4049
https://www.kndservices.net

1-10.2(2) Traffic Control Plans

The first sentence of Section 1-10.2(2) is replaced with the following:

(******)

Traffic control plans and Construction Staging Plans have not been provided by the Owner. The Contractor shall prepare traffic control plans and Construction Staging Plans. Traffic control plans and Construction Staging Plans shall be prepared based on the requirements set forth in Sections 1-07.23 and 1-10.1 of these Special Provisions. Preparation of the Traffic Control Plan and Construction Staging Plans shall be included in other items of work contained in the proposal.

1-10.4 Measurement

1-10.4(1) Lump Sum Bid for Project (No Unit Items)

Section 1-10.4(1) is supplemented with the following:

(******)

The bid Proposal contains the lump sum bid item “Project Temporary Traffic Control”. The provisions of Section 1-10.4(1) apply.

1-10.5 Payment

1-10.5(1) Lump Sum Bid for Project (No Unit Items)

Section 1-10.5(1) is supplemented with the following:

(******)

The lump sum bid for “Project Temporary Traffic Control”, shall also include all costs associated with preparing and receiving approval for the Traffic Control Plans and Construction Staging Plans, including all revisions and updates necessary throughout the duration of the project. The lump sum cost also includes all payment for obtaining and maintaining traffic control permits.

END OF DIVISION 1

DIVISION 2

EARTHWORK

2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP

2-01.1 Description

(******)

Section 2-01.1 is supplemented with the following:

Clearing and grubbing on this project shall be performed to the limits shown on the Plans:

The Contractor shall coordinate with the Contracting Agency to protect and leave in place those trees, landscaping, or other items specifically identified to be saved. Where such is required, the Contractor shall flag those trees, shrubs, etc., to identify to his workforce their need to be saved.

If the Contractor removes or damages any existing vegetation, or landscaping item not designated for removal because of any act, omission, neglect or misconduct in the execution of the work, such items shall be restored or replaced in kind by the Contractor to a condition similar or equal to that existing before such damage or removal occurred.

Clearing and grubbing shall include the removal and disposal of all trees or vegetation within the project area or as required for installation of the improvements. Such operations shall be limited to only those items that must be removed for the project construction; vegetation and trees not affected by the construction shall not be removed or damaged.

Miscellaneous small items requiring removal have not been shown on the Plans

2-01.4 Measurement

Section 2-01.4 shall be replaced with the following:

(******)

No separate measurement for payment will be made for routine cleanup, but instead routine cleanup will be included in the lump sum price for “Removal of Structures and Obstructions”.

No specific unit of measurement will apply to the lump sum item of “Clearing and Grubbing”.

2-01.5 Payment

Section 2-01.5 shall be supplemented with the following:

(******)

“Clearing and Grubbing”, per lump sum.

The lump sum contract price for “Clearing and Grubbing”, will be full pay for the costs of all labor, tools, equipment, fees and materials necessary or incidental to perform the clearing, grubbing, and cleanup operations to complete the Work including all disposal fees.

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.1 Description

Section 2-02.1 shall be supplemented with the following:

(******)

This work shall also include the removal of an existing wooden fence located in the right-of-way.

2-02.3 Construction Requirements

Section 2-02.3 is supplemented with the following:

(******)

Voids left by the removal of items listed above shall be filled with crushed surfacing base course, and compacted to 95 percent of maximum density as specified in Section 2-03.3(14)C, Method C.

2-02.5 Payment

Section 2-02.5 is supplemented with the following:

(******)

“Removal of Drainage Structure”, per each.

The unit contract price bid per each for “Removal of Drainage Structure” shall be full compensation for all labor, tools, equipment, and incidentals

required to perform the work, to include, but not limited to, removing, loading, waste hauling, and any and all dump fees.

2-03 ROADWAY EXCAVATION AND EMBANKMENT

2-03.1 Description

Section 2-03.1 shall be supplemented with the following:

(******)

This work shall consist of all work defined under routine cleaning and removing or relocating items noted in this section of the Special Provisions and shown on the Plans.

In general, the Contractor shall remove and replace existing items that are in conflict with the new improvements, as noted above, and/or shown on the Plans.

Any pavement, sidewalk, or curb and gutter that is damaged, and not designated for removal as shown on the Plans or preapproved by the Contracting Agency, shall be repaired or replaced entirely at the Contractor's expense. The width and location of cuts shall be preapproved by the Engineer before cutting of pavement, sidewalk, or curb and gutter.

Wheel cutting or jack hammering will not be considered an acceptable means of pavement, sidewalk, or curb and gutter "cutting," unless preapproved by the Engineer. However, even if preapproved as a method of cutting, or if the Engineer directs the Contractor to utilize this method of cutting, no payment will be made for this type of work; but rather, it shall be considered included with the project, and as such, included in the various unit prices bid in the Proposal.

Specific items and materials removed by the Contractor shall remain the property of the Tulalip Tribes. These items are identified on the Plans or within these Special Provisions and shall be delivered to the Tulalip Tribes. All other materials removed shall become the property of the Contractor and shall be disposed of at a Contractor-provided waste site meeting the requirements of Section 2-03.3(7) to be obtained and paid for by the Contractor.

2-03.3 Construction Requirements

Section 2-03.3 is supplemented with the following:

(******)

Any loose soil should be compacted to a firm and unyielding condition and at least to 95 percent of the modified Proctor maximum dry density per ASTM D1557. Any areas that are identified as being soft or yielding during subgrade evaluation should be over-excavated to a firm and unyielding condition, or to the depth determined by the Engineer, and included in the Unsuitable Foundation Excavation, including Haul bid item. Where over-excavation is performed below a structure, the over-excavation area should extend beyond the outside of the footing a distance equal to the depth of the over-excavation below the footing.

In areas of unsuitable foundation excavation, woven geosynthetic fabric such as TenCate® RS380i or approved equivalent shall be used to provide reinforcement, filtration, separation and confinement. The over-excavated area below the roadway shall be backfilled with quarry spalls per WSDOT Standard Specification 9-13.1(5). The unsuitable foundation excavation depth is anticipated to be 18 inches below the crushed surfacing base course shown on the Plans.

Once the Engineer has approved a subgrade, further measures should be implemented to prevent degradation or disturbance of the subgrade. These measures could include, but are not limited to, placing a layer of crushed rock or lean concrete on the exposed subgrade, or covering the exposed subgrade with a plastic tarp and keeping construction traffic off the subgrade. Once subgrade has been approved, any disturbance because the subgrade was not protected should be repaired by the contractor at no cost to the owner.

All material placed below pavement areas should be considered structural fill. Structural fill material shall be free of deleterious material, have a maximum particle size of 6 inches, and be compactable to the required compaction level.

All structural fill shall be compacted to a dense and unyielding condition and to a minimum percent compaction based on its modified Proctor maximum dry density as determined per ASTM D1557. Structural fill placed for each of the following shall be compacted to the indicated percent compaction:

Pavement Subgrades (upper 2 feet): 95 Percent
Pavement Subgrades (below 2 feet): 90 Percent

The Contractor shall provide access to driveways by installing a temporary ramp between the excavated roadway and the existing driveway. The temporary ramp may be constructed of crushed surfacing base course. This work will be captured under the “Crushed Surfacing Base Course” bid item. The Contractor shall have a 1-inch steel plate, rated for HS20 loading, on standby for vehicle access at all times.

2-03.4 Measurement

Section 2-03.4 is supplemented with the following:

(******)

No separate measurement will be made for saw cutting of any kind.

Measurement of “Unsuitable Foundation Excavation Incl. Haul” will be by the cubic yard in place of material actually removed. Because the amount of such excavation is unknown, a quantity has been estimated based on the geotechnical investigation and report to provide a common bid base. The unit price submitted shall be used for all such excavation. Material that must be excavated to provide the required pavement section or to perform Other work as described in the Plans and these Special Provisions, regardless of the nature of the material, shall not be considered as unsuitable foundation excavation. Additional Material excavated as directed by the Engineer, to provide a stable subgrade for the pavement section, will be measured as “Unsuitable Foundation Excavation Incl. Haul”.

2-03.5 Payment

Section 2-03.5 is supplemented with the following:

(******)

No payment will be made for pavement cutting on the project. All costs for pavement cutting shall be included in the bid item for “Roadway Excavation Incl. Haul”.

“Unsuitable Foundation Excavation Incl. Haul”, per cubic yard.

The unit bid price in the Proposal for “Unsuitable Foundation Excavation Incl. Haul” shall be full compensation for the cost of all labor, tools, equipment, and materials necessary to remove, load, haul, and dispose of the unsuitable material off-site at a Contractor-obtained legal disposal site. The unit bid price shall also include all costs associated with furnishing,

hauling, placing, and compacting the material specified to replace the unsuitable material including geotextile for separation.

2-04 HAUL

2-04.5 Payment

Section 2-04.5 is supplemented with the following:

(******)

All costs associated with hauling materials of any description to, from, and within the project site shall be included in the appropriate unit bid prices in the Proposal and no further compensation will be paid.

2-07 WATERING

2-07.3 Construction Requirements

Section 2-07.3 is supplemented with the following:

(******)

During construction, the Contractor shall have dedicated to the project, a suitable water truck that shall be operated as necessary to control dust. Failure to have a water truck immediately accessible to the job, and failure to use said water truck for dust control, shall be adequate reason to “shut down” the project construction. Such shutdown is herein agreed to upon submitting a Bid for this project. Shutdowns due to the Contractor’s failure to control dust shall not be considered as unworkable days.

The Contractor shall make necessary arrangements and shall bear the costs for water necessary for the performance of the work.

Water placement includes that required for dust control while excavating for the installation of the utilities, for processing and compacting the subgrade, and for dust control between the time of subgrade preparation and the placing of asphalt. Dust control water shall be applied as directed by the Engineer or the Project Inspector and for such period of time as he deems necessary.

2-07.5 Payment

Section 2-07.5 is replaced with the following:

(******)

No additional payment shall be made for watering. All costs incurred for this item shall be included in the other related bid items.

2-09 STRUCTURE EXCAVATION

2-09.3 Construction Requirements

Section 2-09.3 is supplemented with the following:

(******)

Shoring shall be constructed with provisions made to allow the Inspector to enter the shored trench at any time.

2-09.3(1) General Requirements

Section 2-09.3(1) is supplemented with the following:

(******)

Excavation required for this project shall be performed in compliance with the applicable requirements of Section 7-08.3(1) “Excavation and Preparation of Trench.”

All “normal trench dewatering” work associated with maintaining a trench suitable for pipeline construction will be included in the other items of work. “Normal trench dewatering” is defined as dewatering methods occurring in or directly adjacent to the trench, including trash pumps, sump pumps, or other methods in excavated areas. Normal trench dewatering does not include a dewatering system such as well points, well screens, or deep wells.

2-09.3(1)D Disposal of Excavated Material

Section 2-09.3(1)D is supplemented with the following:

(******)

All unsuitable material removed as structure excavation shall be disposed of offsite at a legal disposal site.

2-11 TRIMMING AND CLEANUP

2-11.1 Description

Section 2-11.1 is supplemented with the following:

(******)

During construction, and then upon completion of the work, the Contractor shall thoroughly comb and search the surrounding area and remove any construction material thrown or discarded amongst the trees, bushes, ditches, etc., such as paint cans, cartons, broken pipe, pavement pieces, paper, bottles, etc., and shall tidy up the surrounding general area to make it neat in appearance, including removal of debris that may or may not have been deposited by Contractor's operation.

Paved street surfaces, existing and new, shall be thoroughly cleaned (street sweeper) upon completion of work within the area, and shall require daily cleaning if dust or mud exists. Prior to job acceptance, all streets shall be cleaned.

Prior to final inspection, remove from the job site, all tools, surplus materials, equipment, scrap, debris, and waste.

2-11.5 Payment

Section 2-11.5 is supplemented with the following:

(******)

No separate payment will be made for trimming and cleanup, but instead will be included in the lump sum item for "Removal of Structures and Obstructions".

END OF DIVISION 2

DIVISION 5

SURFACE TREATMENTS AND PAVEMENTS

5-04 HOT MIX ASPHALT

(July 18, 2018 APWA GSP)

Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:

5-04.1 Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2 Materials

Materials shall meet the requirements of the following sections:

Asphalt Binder	9-02.1(4)
Cationic Emulsified Asphalt	9-02.1(6)
Anti-Stripping Additive	9-02.4
HMA Additive	9-02.5
Aggregates	9-03.8
Recycled Asphalt Pavement	9-03.8(3)B
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21
Portland Cement	9-01
Sand	9-03.1(2) (As noted in 5-04.3(5)C for crack sealing)
Joint Sealant	9-04.2
Foam Backer Rod	9-04.2(3)A

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01.

Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

5-04.2(1) How to Get an HMA Mix Design on the QPL

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

5-04.2(1)A Vacant

5-04.2(2) Mix Design – Obtaining Project Approval

No paving shall begin prior to the approval of the mix design by the Engineer.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

Nonstatistical Mix Design. Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.

- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & sig-nature) of a valid licensed Washington State Professional Engineer.

- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and

meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).

- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.

5-04.2(2)B Using Warm Mix Asphalt Processes

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.

- Before using additives, obtain the Engineer's approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55◦F	45◦F
0.10 to .20	45◦F	35◦F
More than 0.20	35◦F	35◦F

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be

included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.

2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.

3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.

4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).

5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:

   a. A mechanical sampling device attached to the HMA plant.

   b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working

order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless other-wise required by the contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.

2. Shall not be connected to the hauling vehicle or paver.

3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.

4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.

5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.

2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.

3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.

4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash.

Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the

application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks 1/4 inch in width and greater.

Cleaning: Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until the slurry has fully cured.

The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks and joints until full. The following day, any cracks or joints that are not completely filled shall be topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off flush with the existing pavement surface

and allowed to cure. The HMA overlay shall not be placed until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

In areas where HMA will be placed, use sand slurry to fill the cracks.

In areas where HMA will not be placed, fill the cracks as follows:

1. Cracks 1/4 inch to 1 inch in width – fill with hot poured sealant.

2. Cracks greater than 1 inch in width – fill with sand slurry.

Hot Poured Sealant: For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

5-04.3(4)A2 Crack Sealing Areas Prior to Paving

In areas where HMA will be placed, use sand slurry to fill the cracks.

5-04.3(4)A3 Crack Sealing Areas Not to be Paved

In areas where HMA will not be placed, fill the cracks as follows:

A. Cracks 1/4 inch to 1 inch in width - fill with hot poured sealant.

B. Cracks greater than 1 inch in width – fill with sand slurry.

5-04.3(4)B Vacant

5-04.3(4)C Pavement Repair

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations

in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and

thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise

directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1”		0.35 feet
HMA Class ¾” and HMA Class ½”		
	wearing course	0.30 feet
	other courses	0.35 feet
HMA Class ⅜”		0.15 feet

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA

For HMA accepted by nonstatistical evaluation the aggregate properties of sand equivalent, uncompacted void content and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

5-04.3(9) HMA Mixture Acceptance

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in accordance with this section.

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

   For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2.

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

   For Aggregates in the mixture:

   a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

   b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.

2. Job Mix Formula Adjustments – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.

   a. **Aggregates** –2 percent for the aggregate passing the 1½″, 1″, ¾″, ½″, ⅜″, and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).

   b. **Asphalt Binder Con**tent – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent

5-04.3(9)A Vacant

5-04.3(9)B Vacant

5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day's production or 800 tons, whichever is less except that the final sublot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Sampling and testing for evaluation shall be performed on the frequency of one sample per sublot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall to be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.

- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of Va will at the option of the Contracting Agency. If tested, compliance of Va will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	**Factor "f"**
All aggregate passing: 1½″, 1″, ¾″, ½″, ⅜″ and No. 4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (Va) (where applicable)	20

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

5-04.3(9)C5 Vacant

5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests

The Contractor may request a sublot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, Va. The results of the retest will be used for the acceptance of the HMA in place of the original sublot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of $500 per sample.

5-04.3 (9)D Mixture Acceptance – Commercial Evaluation

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(10) HMA Compaction Acceptance

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor

(CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item “Roadway Core” the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item “Roadway Core” the Contracting Agency will obtain the cores.

For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor’s request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

Test Results

For a sublot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the sublot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the sublot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after the test results for the sublot have been provided or made available to the Contractor. Core locations shall be outside of wheel paths and as determined by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the Contract at the rate of $200 per core and the Contractor shall pay for the cost of the traffic control.

5-04.3(10)A HMA Compaction – General Compaction Requirements

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced with new hot mix that shall be immediately compacted to conform to the surrounding area.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor’s option, provided the specified densities are attained. Unless the Engineer has approved otherwise, rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F. Regardless of mix temperature, a roller shall not be operated in a mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode on bridge decks.

5-04.3(10)B HMA Compaction – Cyclic Density

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A $500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

5-04.3(10)D1 HMA Nonstatistical Compaction – Lots and Sublots

HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing performed by the Contracting Agency dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot shall be equal to one day's production or 400 tons, whichever is less except that the final sublot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per sublot per WSDOT T 738.

The sublot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each sublot, with one test per sublot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a sublot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

Work that is defective or does not conform to Contract requirements shall be rejected. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer. HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this specification, and the Contractor shall submit a corrective action proposal to the Engineer for approval.

5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this

sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or

When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or

When either the PFi for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than ½ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

5-04.3(12)B1 HMA Sawcut and Seal

Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck when and where shown in the Plans. Establish the sawcut alignment points in a manner that they remain functional for use in aligning the sawcut after placing the overlay.

Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

Construct the bridge paving joint seal as specified ion the Plans and in accordance with the detail shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's application procedure.

5-04.3(12)B2 Paved Panel Joint Seal

Construct the paved panel joint seal in accordance with the requirements specified in Section 5-04.3(12)B1 and the following requirement:

1. Clean and seal the existing joint between concrete panels in accordance with Section 5-01.3(8) and the details shown in the Standard Plans.

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than ⅛ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than ¼ inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or

2. Removal and replacement of the wearing course of HMA, or

3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of $500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing (Milling) Bituminous Pavement

The planning plan must be approved by the Engineer and a pre planning meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor’s planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:

    a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure, must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).

    b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an

intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.

c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.

d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.

e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.

2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.

3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where peace officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.

2. A copy of each intersection's traffic control plan.

3. Haul routes from Supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.

4. Names and locations of HMA Supplier facilities to be used.

5. List of all equipment to be used for paving.

6. List of personnel and associated job classification assigned to each piece of paving equipment.

7. Description (geometric or narrative) of the scheduled sequence of planing and of paving, and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.

8. Names, job titles, and contact information for field, office, and plant supervisory personnel.

9. A copy of the approved Mix Designs.

10. Tonnage of HMA to be placed each day.

11. Approximate times and days for starting and ending daily operations.

5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, Metro transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both Paving Plan and for Planing Plan:

    a. The actual times of starting and ending daily operations.

    b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.

    c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other contractors who may operate in the Project Site.

    d. Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.

    e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.

f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed

g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.

h. Description of how flaggers will be coordinated with the planing, paving, and related operations.

i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.

j. Other items the Engineer deems necessary to address.

2. Paving – additional topics:

a. When to start applying tack and coordinating with paving.

b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.

c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.

d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.

e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

HMA approaches shall be constructed at the locations shown in the Plans or where staked by the Engineer. The Work shall be performed in accordance with Section 5-04.

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Preparation of untreated roadway will be measured by the mile once along the centerline of the main line Roadway. No additional measurement will be made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement will be to the nearest 0.01 mile.

Soil residual herbicide will be measured by the mile for the stated width to the nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Asphalt for prime coat will be measured by the ton in accordance with Section 1-09.2.

Prime coat aggregate will be measured by the cubic yard, truck measure, or by the ton, whichever is designated in the Proposal.

Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

Longitudinal joint seals between the HMA and cement concrete pavement will be measured by the linear foot along the line and slope of the completed joint seal.

Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

Water will be measured by the M gallon as provided in Section 2-07.4.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"HMA Cl. ___ PG ___", per ton.

"HMA for Approach Cl. ___ PG ___", per ton.

"HMA for Preleveling Cl. ___ PG ___", per ton.

"HMA for Pavement Repair Cl. ___ PG ___", per ton.

"Commercial HMA", per ton.

(******)

Section 5-04.5 of the July 18, 2018 APWA GSP is revised to read as follows:

The unit Contract price per ton for "HMA Cl. ___ PG ___", shall be full compensation for all costs, including anti-stripping additive and the asphalt wedge curb, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this subsection and which are included in the Proposal.

(July 18, 2018 APWA GSP)

"Preparation of Untreated Roadway", per mile.

The unit Contract price per mile for "Preparation of Untreated Roadway" shall be full pay for all Work described under 5-04.3(4) , with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for "HMA Cl. ___ PG ___" which was used for patching. If the Proposal does not include a

Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Preparation of Existing Paved Surfaces”, per mile.

The unit Contract Price for “Preparation of Existing Paved Surfaces” shall be full pay for all Work described under Section 5-04.3(4) with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ___ PG ___” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Crack Sealing”, by force account.

“Crack Sealing” will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the total Bid by the Contractor.

“Pavement Repair Excavation Incl. Haul”, per square yard.

The unit Contract price per square yard for “Pavement Repair Excavation Incl. Haul” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for “HMA for Pavement Repair Cl. ___ PG ___”, per ton.

“Asphalt for Prime Coat”, per ton.

The unit Contract price per ton for “Asphalt for Prime Coat” shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

“Prime Coat Agg.”, per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

“Asphalt for Fog Seal”, per ton.

Payment for “Asphalt for Fog Seal” is described in Section 5-02.5.

"Longitudinal Joint Seal", per linear foot.

The unit Contract price per linear foot for "Longitudinal Joint Seal" shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(12).

"Planing Bituminous Pavement", per square yard.

The unit Contract price per square yard for "Planing Bituminous Pavement" shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

"Temporary Pavement Marking", per linear foot.

Payment for "Temporary Pavement Marking" is described in Section 8-23.5.

"Water", per M gallon.

Payment for "Water" is described in Section 2-07.5.

"Job Mix Compliance Price Adjustment", by calculation.

"Job Mix Compliance Price Adjustment" will be calculated and paid for as described in Section 5-04.3(9)C6.

"Compaction Price Adjustment", by calculation.

"Compaction Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)D3.

"Roadway Core", per each.

The Contractor's costs for all other Work associated with the coring (e.g., traffic control) shall be incidental and included within the unit Bid price per each and no additional payments will be made.

"Cyclic Density Price Adjustment", by calculation.

"Cyclic Density Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)B.

END OF DIVISION 5

DIVISION 7

DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

7-04 STORM SEWERS

7-04.2 Materials

Delete the sixth paragraph under this Section and replace it with the following:

(******)

The Contractor shall provide the diameter and type of pipe specified on the Plans.

7-04.5 Payment

(******)

"___ Storm Sewer Pipe ___ In. Diam.", per linear foot.

The unit contract price per linear foot for "___ Storm Sewer Pipe ___ In. Diam." shall be full pay for all labor, materials, and equipment to complete the installation of the storm sewer pipe including, but not limited to, trench excavation, normal trench dewatering, laying and jointing pipe and fittings, connection to existing storm sewer pipe, approved couplings and adaptors, import pipe bedding, import trench backfill, compaction, and cleanup as shown in the Plans.

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.1 Description

This section is supplemented with the following:

(******)

The Work described in this section also includes adjusting sanitary sewer manholes and catch basins to grade per the Plans and these Specifications.

7-05.2 Materials

Section 7-05.2 is supplemented with the following:

(******)

CONTECH Systems

"Stormwater Treatment Manhole # ___" shall be stormwater treatment systems manufactured by CONTECH Construction Products Inc., 11835 NE

Glenn Widing Drive, Portland, Oregon 97220, (800) 548-4667, and shall consist of an underground precast structure that houses passive siphon-actuated, radial-flow media-filled filter cartridges. The radial-flow filter cartridges shall be rechargeable, and shall incorporate a self-actuated surface cleaning mechanism.

Filter media shall be provided by CONTECH Construction Products Inc. or approved alternate source. Filter media shall consist of Zeolite-Perlite-Granular Activated Carbon (ZPG) mixed media.

See Plan Sheets for manufacturer-supplied specifications relating to the CONTECH systems.

7-05.3 Construction Requirements

Section 7-05.3 is supplemented with the following:

(******)

CONTECH Systems

See Plan Sheets for manufacturer-supplied specifications relating to the CONTECH systems.

The Contractor shall provide for manufacturer maintenance of the system for a period of 1 year after project acceptance. The Contractor shall also warranty the components of the units for a period of one year.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade

This section is deleted and replaced with the following:

(******)

Where shown in the Plans or where directed by the Engineer, the Contractor shall adjust manholes and catch basins to be flush with the finished grade using precast concrete adjustment rings matching the existing structure, as shown in the Plans. The Contractor shall complete the adjustment of new and existing utility structures in paved areas within 5 working days after the pavement is completed.

The asphalt concrete pavement shall be cut and removed to a neat circle, the diameter of which shall equal the outside diameter of the manhole frame plus 2 feet. The existing material surrounding the frame shall be removed to a minimum depth of 8 inches below finished grade, or as necessary to complete the adjustment. Excavations in excess of 8 inches below finished grade shall be backfilled with crushed surfacing top course compacted to a minimum of 95% density. Starting at 8 inches below finished grade, Class 3000 cement concrete shall be placed to fill the entire volume of the

excavation up to within a minimum of 2 inches, and a maximum of 3 inches of the finished pavement surface.

The concrete, the edges of the asphalt concrete pavement, and the outer edge of the casting shall be painted with hot asphalt cement. Asphalt concrete shall then be placed and compacted with hand tampers and a patching roller.

The completed patch shall match the finished grade for uniformity of grade. The joint between the patch and the pavement shall then be painted with hot asphalt cement or asphalt emulsion and shall be immediately covered with dry paving sand before the asphalt cement solidifies.

Surrounding surfaces that are damaged during construction shall be restored by the Contractor.

7-05.4 Measurement

This section is supplemented with the following:

(******)

No separate measurement will be made for sawcutting, excavation, waste haul, crushed surfacing top course, concrete, HMA patch, or surface restoration, which shall include in the unit Contract price for “Adjust Catch Basin” and “Adjust Manhole”.

“Stormwater Treatment Manhole # ____”, per each.

7-05.5 Payment

The first paragraph is supplemented with the following:

(******)

The unit contract price per each for “Adjust Catch Basin” and “Adjust Manhole” shall include all costs to adjust the existing structures to the finished grade including, but not limited to, sawcutting, excavation, waste haul, furnishing and installing adjustment rings and blocks, crushed surfacing top course, HMA patch, concrete collars and surface restoration. The cost for temporary or other adjustment not to final grade shall be considered incidental to the Project and as such merged into the items bid.

“Stormwater Treatment Manhole # _____”, per each.

The unit Contract price per each for the item above shall be full pay for

furnishing and installing the structure, including all structure excavation; furnishing and installing backfill around the structure; connecting new or existing pipe to the structure; and media, cartridges, grates, concrete collars, internal piping or other appurtenances for a fully operational system.

The unit Contract price per each shall also include two maintenance visits by the manufacturer to each structure for 1 year after installation.

The unit Contract price per each for all other structures installed under Section 7-05 of the Standard Specifications shall include the frame and grate, as described on the Plans.

END OF DIVISION 7

DIVISION 8

MISCELLANEOUS CONSTRUCTION

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.1 Description

Section 8-01.1 is supplemented with the following:

(******)

This work also consists of preparing the Erosion Control Plan, inspecting water pollution and erosion control items, preparation of the Stormwater Pollution Prevention Plan (SWPPP), transfer of the EPA Construction Stormwater General Permit from the Contracting Agency to the Contractor, documenting, and testing stormwater discharge.

8-01.3 Construction Requirements

8-01.3(1) General

Section 8-01.3(1) is supplemented with the following:

(******)

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, runoff, or other related items during the construction of the project. The Contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other water that may occur as a result of construction operations.

Any area not covered with established, stable vegetation where no further work is anticipated for a period of 15 days shall be immediately stabilized with the approved erosion and sedimentation control methods (e.g., seeding and mulching, straw, plastic sheet). Where seeding for temporary erosion control is required, fast germinating grasses shall be applied at an appropriate rate (e.g., perennial rye applied at approximately 80 pounds per acre).

At no time shall more than 1 foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned at a time designated by the Project Construction Inspector. The cleaning operation shall not flush sediment-laden water into the downstream system. The cleaning shall be conducted using an approved vacuum truck capable

of jet rodding the lines. The collection and disposal of the sediment shall be the responsibility of the Contractor at no cost to the Tribe.

Erosion control materials shall be installed prior to the start of any other work on the Project.

Following completion of the project, the Contractor shall remove all erosion-control materials and dispose of them off-site. Any areas disturbed by the installation and/or removal of temporary erosion control materials shall be restored by the Contractor as directed by the Engineer at no cost to the Tribes.

The Contractor shall meet all EPA Construction Stormwater General Permit requirements including, but not limited to inspecting, documentation, testing, and notifications. Prior to any work the Contractor shall sign and submit the EPA “Transfer of Coverage” form which transfers responsibility of the site from the Contracting Agency to the Contractor for stormwater runoff.

The Contractor shall prepare and submit a Stormwater Pollution Prevention Plan, in conformance with EPA requirements, to the Contracting Agency before any Work begins.

8-01.3(1)A Submittals

Section 8-01.3(1)A is supplemented with the following:

(******)

The Contractor shall be required to prepare, maintain, and update the erosion control plan, as may be required during the course of the Project. The erosion control plan and details included are provided solely for the establishment of basic erosion control measures and are not intended to be a complete plan.

8-01.3(2) Temporary Seeding and Mulching

8-01.3(2)B Temporary Seeding

Section 8-01.3(2)B is supplemented with the following:

(******)

Seed of the following composition, proportion, and quality shall be applied at a rate of 200 pounds per acre on areas requiring temporary seeding:

Kind and Variety of Seed in Mixture	Pounds of Pure Live Seed (PLS) Per Acre
Creeping Red Fescue	80
Perennial Ryegrass	80
Highland Colonial Bentgrass	20
White Dutch Clover	20
Total	**200**

(******)

Sufficient quantities of 18-6-12 fertilizer shall be applied at 650 pounds per acre, 72 percent of nitrogen applied per acre shall be derived from isobutylidene diurea (IBDU), cyclo-di-urea (CDU), or a time release, polyurethane coated source with a minimum release time of 6 months. The remainder may be derived from any source.

The fertilizer formulation and application rate shall be approved by the Engineer before use.

8-01.3(9) Sediment Control Barriers

8-01.3(9)D Inlet Protection

Section 8-01.3(9)D is supplemented with the following:

(******)

All catch basins grates within the project limits and adjacent areas shall have inlet protection installed to prevent sedimentation from entering the storm system. The inlet protection shall be routinely cleaned of sediment to prevent plugging. This sediment shall be regularly removed, loaded, and hauled to waste whenever it presents a potential surface accumulation problem or concern to the Tribes. Any damage caused by the Contractor's failure to keep the erosion materials maintained shall be borne by the Contractor alone.

Add the following new section:

(******)

8-01.3(17) Trench Dewatering **New Section**

All "Normal Trench Dewatering" work associated with maintaining an excavation or trench suitable for construction will be included in the unit price of the utility being installed. "Normal Trench Dewatering" is defined as

dewatering methods occurring in or directly adjacent to the trench, including trash pumps, sump pumps, or other methods in the excavated areas.

Discharge Location

The Contractor shall dispose of all surface water runoff and water removed by "Normal Trench Dewatering" in an environmentally sound manner that will not endanger health, property, or any portion of the work under construction. The discharge locations(s) shall be identified in the Contractor's dewatering submittal for the Engineer's review as specified herein. Disposal of water shall be performed in such a matter as will cause no inconvenience whatsoever to the Owner, Engineer, adjacent property owners, or to others engaged in work about the site.

The Contractor shall use sediment control methods, as required, at discharge points near property lines to prevent silt and sediment from migrating off-site. Sediment control methods can include, but are not limited to, baker tank, siltation ponds, filter fences, screens, and other methods as required.

8-01.4 Measurement

Section 8-01.4 is replaced with the following:

(******)

No specific unit of measurement shall apply to the lump sum item "Erosion Control and Water Pollution Prevention".

No separate measurement for payment will be made for "Normal Trench Dewatering" used in conjunction with this project, but instead, all costs shall be included in the per linear foot price of the utility being installed.

8-01.5 Payment

Section 8-01.5 is replaced with the following:

(******)

"Erosion Control and Water Pollution Prevention", lump sum.

The lump sum bid price for "Erosion Control and Water Pollution Prevention" shall constitute full pay for all labor, materials, tools, and equipment, and incidentals necessary for the installation, maintenance, and removal of

erosion and sediment control facilities including, but not limited to, the following:

1. Erosion and sedimentation control installation and maintenance and replacement as required until project completion and approval.
2. Maintenance of catch basins, storm drains, ditches, and other drainage courses, including immediate removal and disposal of accumulated sedimentation.
3. Removal of erosion and sediment control best management practices upon completion of the project.
4. Installation of jute mat and any additional work deemed necessary by the Engineer to control erosion and water pollution.

8-02 ROADSIDE RESTORATION

8-02.1 Description

Section 8-02.1 is supplemented as follows:

(******)

This Work consists of in-kind restoration of all disturbed areas between the edge of pavement or curb, and the limits of construction. This Work consists of replacing all landscaping on private property, including but not limited to, bushes, shrubs, topsoil, bark, concrete masonry block unit retaining walls, fencing, and all other restoration activity necessary to restore the property to equal or better condition.

8-02.2 Materials

Topsoil

Topsoil Type A

Section 9-14.2(1) is supplemented with the following:

(February 25, 2021 WSDOT GSP, Option 1)

Topsoil Type A shall meet the following requirements:

1. Cation exchange capacity (CEC) of Topsoil Type A shall be a minimum of 5 milliequivalents CEC/100 g dry soil (U.S. EPA 6 Method 9081).

2. Organic content greater than 8-percent but less than 15-percent as measured on a dry weight basis using AASHTO T 267 Determination of Organic Content in Soils by Loss on Ignition.

Topsoil Type A shall be 60 -percent to 70 -percent *** sandy *** Loam and 40 -percent to 30 -percent *** fine *** Compost by volume. *** Sandy *** Loam shall be as defined by the US Department of Agriculture Soil Classification System.

The Contractor shall submit a Particle Size Analysis as a Type 1 Working Drawing from an independent accredited soils testing laboratory indicating the Material source and compliance with all Topsoil Type A specifications. The laboratory analysis shall be with a sample size of no less than 2 pounds.

The *** fine *** Compost shall conform to the requirements of Section 9-14.4(8).

8-02.3 Construction Requirements

8-02.3(4) Topsoil

Section 8-02.3(4) is supplemented with the following:

(******)

The costs of removing all excess material and debris shall be included with the Project and as such merged in the various items bid.

Cultivate 4 inches of imported topsoil, Type A into the existing subgrades to a minimum transition depth of 6 inches in areas to be seeded with topsoil, in sod areas, in planting strip areas and in fill slopes to be planted, as shown on the Plans.

8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation

8-02.3(5)A Seeding Area Preparation

Section 8-02.3(5)A is supplemented with the following:

(******)

Finished grades of seeding areas shall allow for soil preparation and mulch. Finished grades shall be as follows:

Seeding Areas:	1 inch below all walks, curbs, and/or hard-surface edges.

Perform all excavation and backfill necessary to provide finish grade of landscape areas as indicated and specified. Remove from site excess and

unsuitable material. Landscape areas shall be graded to lines, grades, and cross sections indicated. Grades shall meet the following:

1. Maximum 2:1 slope, unless otherwise indicated.

2. Smooth and round off surfaces at abrupt grade changes.

3. Feather grades to meet existing gradually. Rake planting areas smooth and remove surface rocks over 2-inches diameter.

4. Provide minimum 2 percent crown or slope in all landscape areas. The Contractor is responsible for any adverse drainage conditions that may affect plant growth, unless he contacts the Project Engineer immediately indicating any possible problem.

Finish grades shall be inspected and accepted by the Tribes prior to commencing planting or seeding work.

The costs of removing all excess material and debris shall be included with the Project and as such merged in the various items bid.

Final Acceptance

Final acceptance by the Tribes for soil preparation will be contingent on the approval of all inspections, and that the soil preparation is consistent with these specifications and with the Plans.

8-02.3(9) Seeding, Fertilizing, and Mulching

8-02.3(9)B Seeding and Fertilizing

Section 8-02.3(9)B is supplemented with the following:

(September 3, 2019 WSDOT GSP, Option 1)

Seed of the following mix, rate, and analysis shall be applied at the rates shown below on all areas requiring seeding within the project:

Kind and Variety of Seed in Mixture	**Pounds of Pure Live Seed (PLS) Per Acre**
Creeping Red Fescue	80
Perennial Ryegrass	80
Highland Colonial Bentgrass	20
White Dutch Clover	20
Total	**200**

Source Identified seed shall be generation four or less. Non-Source Identified seed shall meet or exceed Washington State Department of Agriculture Certified Seed Standards and be from within the appropriate genetic zones of the *** Puget Lowland *** Ecoregion(s) as defined by the US Environmental Protection Agency (EPA).

The seed certification class shall be Certified (blue tag) in accordance with WAC 16-302 and meet the following requirements:

Prohibited Weed 0% max.
Noxious Weed 0% max.
Other Weed 0.20% max.
Other Crop 0.40% max.

The Contractor shall document all Source Identified seed by providing the Association of Official Seed Certifying Agents (AOSCA) yellow seed label for each species in the mix. Site Identification Logs can be supplied for collections where the AOSCA yellow label is not available.

8-02.3(13) Plant Establishment

Section 8-02.3(13) is supplemented with the following:

8-02.4 Measurement

Section 8-02.4 is supplemented with the following:

(******)

Topsoil, mulch and soil amendments will be measured by the square yard along the grade and slope of the area covered after application.

Compost will be measured by the square yard along the grade and slope of the area covered after application.

(******)

No specific unit of measurement will apply to the lump sum item of “Roadside Restoration”.

8-02.5 Payment

Section 8-02.5 is supplemented with the following:

(******)

"Topsoil Type A", per square yard.

The unit Contract price per square yard for "Topsoil Type A" shall be full payment for all costs for the specified Work.

"Roadside Restoration", lump sum.

The lump sum Contract payment shall be full compensation for all costs incurred by the Contractor in performing the Contract Work defined in Section 8-02.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

Section 8-04.3 is supplemented with the following:

(******)

New curb and gutter will not be placed until forms have been checked and approved for line, grade, and compaction by the Construction Inspector.

The curb and gutter shall be protected against damage or defacement of any kind until it has been accepted by the Construction Inspector.

8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

8-06.1 Description

Section 8-06.1 is supplemented with the following:

(******)

This work consists of constructing cement concrete driveways in accordance with the Standard Plans and in details shown in the Contract Plans and in conformity to the lines and grades shown in the Contract Plans or as established by the Engineer.

8-06.3 Construction Requirements

Section 8-06.3 is supplemented with the following:

(******)

Driveways shall not be poured until forms have been set and approved by the Engineer.

Contractor is responsible for constructing driveway ramps to the slopes and tolerances as shown in the Standard Plans. Approval of the forms by the Engineer does not mean that the finished driveway and associated ramps are accepted by the Contracting Agency. If the finished driveway and associated ramps do not meet the tolerances as shown in the Standard Details, then the driveway and/or ramps shall be removed and regraded to slopes and tolerances as shown in the Contract Plans and Standard Plans at no cost to the Contracting Agency.

8-06.4 Measurement

Section 8-06.4 is supplemented with the following:

(******)

Measurement for cement concrete driveway entrances will be by the square yard from the back of curb to the back of sidewalk for the width of the entrance, including the sloped transition portion between the entrances and the adjacent sidewalk on each side.

8-06.5 Payment

Section 8-06.5 is supplemented with the following:

(******)

"Cement Conc. Driveway Entrance," per square yard.

The unit contract price per square yard for "Cement Conc. Driveway Entrance" shall be full compensation for all labor, tools, equipment, materials, and incidentals required to perform the work as specified including, but not limited to, forming, joint material, furnishing and installing the concrete, finishing, protecting the work, temporary steel plating, and material testing, regardless of entrance type. Payment for each item shall be paid only once per driveway.

8-12 CHAIN LINK FENCE AND WIRE FENCE

8-12.1 Description

Section 8-12.1 is supplemented as follows:

(******)

This Work consists of furnishing and constructing cedar fencing that shall match the lumber dimensions and post placement of the existing fence.

8-12.2 Materials

Section 8-12.2 is supplemented as follows:

(******)

Materials shall meet the following requirements:

Concrete for foundation:
All-purpose 4,000 psi concrete

Wood posts and stringers:
Douglas Fir Grade #2, Ground Contact Pressure Treated Rating

Metal posts:
Galvanized steel, 12 gauge or thicker

Fence Picket:
Western Red Cedar

Brackets:
Simpson Strong-Tie galvanized or approved equal

Nails:
Grip-Rite Hot-Galvanized or approved equal

8-12.5 Payment

Section 8-12.5 is supplemented as follows:

(******)

All tools, materials, and labor necessary to construct the cedar fencing shall be incidental to the bid item “Roadside Restoration”.

8-13 MONUMENT CASES

8-13.1 Description

Section 8-13.1 is supplemented with the following:

(******)

This work shall also consist of adjusting existing monument case and covers to grade in accordance with the Plans and these Specifications.

8-13.4 Measurement

Section 8-13.4 is supplemented with the following:

(******)

Measurement of Adjust Monument Case and Cover will be per each unit adjusted to final grade.

8-13.5 Payment

Section 8-13.5 is supplemented with the following:

(******)

"Adjust Monument Case and Cover", per each.

The unit contract price per each for "Adjust Monument Case and Cover" shall be full pay for all materials, labor, tools, and equipment necessary to adjust the monument case and cover to grade.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.3 Construction Requirements

Section 8-14.3 is supplemented with the following:

(******)

Any sidewalk damaged, defaced, cracked, chipped, or determined to be of poor workmanship, in the opinion of the Contracting Agency, shall be removed, waste hauled, and replaced by the Contractor at the Contractor's expense. Damaged sidewalk shall be removed at a construction or expansion joint; sawcutting will not be allowed. Sacking, grinding, or spot repaired shall not be considered an acceptable means for repairing unacceptable sections. The Contractor shall further provide verbal and written notice (door hanger) to property owners abutting the Project

identifying restricted use of these facilities, etc. This notice must be provided 1 week prior and again 1 day prior to the work being performed.

Contractor is responsible for constructing curb ramps to the slopes and tolerances as shown in the Standard Plans.

The Contractor shall receive approval of the Engineer for the line and grade of the sidewalk, curb ramps, being installed prior to pouring the concrete. The Contractor shall have the subgrade prepared and formwork in place at least 24 hours prior to pouring concrete. The Engineer shall review the line and grades of the sidewalk and ramps and suggest minor adjustments as necessary. Minor adjustments shall be considered as changes to the Plan elevations or offsets of 3 inches or less. The work to revise the lines, formwork and subgrade for minor adjustments shall be included with the bid. If the lines and formwork are not in conformance with the Plans all adjustments, regardless of size, shall be at the sole expense of the Contractor. Adjustments to the lines and grades shall not constitute a basis for claims for additional contract time or expenses.

8-21 PERMANENT SIGNING

8-21.3 Construction Requirements

8-21.3(4) Sign Removal

Section 8-21.3(4) is supplemented with the following:

(******)

The Contractor shall obtain approval from the Tribes prior to removing existing signs.

8-21.5 Payment

This Section is supplemented with the following:

(******)

"Permanent Signing", per lump sum.

The lump sum contract price for "Permanent Signing" shall be full pay for all material, labor, tools, and equipment necessary to furnish and install all new permanent signs, including posts and fasteners, as shown on the Plans.

8-22 PAVEMENT MARKING

8-22.1 Description

Section 8-22.1 is supplemented with the following:

(******)

Pavement markings shall conform to Section 8-22 of the Standard Specifications, and the latest edition and amendments thereto of the Manual on Uniform Traffic Control Devices (MUTCD) as adopted by the State of Washington, and shall be constructed as shown in the Plans except as modified herein.

The Contractor shall be responsible for all traffic control required to place and protect pavement marking material, as outlined in Section 1-10 of the Standard Specifications and these Special Provisions.

8-22.2 Materials

Section 8-22.2 is supplemented with the following:

(******)

Plastic pavement marking materials shall be Type A – Liquid Hot Applied Thermoplastic per Section 9-34.

8-22.3 Construction Requirements

Section 8-22.3 is supplemented with the following:

(******)

In addition to the requirements of Sections 8-22.3(2) and 8-22.3(3), the application and surface preparation shall conform to the manufacturer's recommendations.

The Contractor shall provide the Engineer with two copies of the manufacturer's recommendations for installation.

In all cases, the product manufacturer's recommended application procedures shall be adhered to. When no such procedures have been published, workmanship shall be governed by these Special Provisions and the Standard Specifications.

END OF DIVISION 8

DIVISION 9

MATERIALS

9-05 DRAINAGE STRUCTURES AND CULVERTS

9-05.20 Corrugated Polyethylene Storm Sewer Pipe, Couplings, and Fittings

Delete the first sentence of the first paragraph and replace with the following:

(******)

Corrugated polyethylene storm sewer pipe, couplings and fittings shall meet the requirements of AASHTO M 294 Type S.

END OF DIVISION 9

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Tulalip Bay Water Main Improvements Technical Specifications

BID SCHEDULES B, C and D
TULALIP BAY WATER MAIN IMPROVEMENTS
PHASE 1
INDIAN HEALTH SERVICES PO 20-M91

Technical Specifications
TABLE OF CONTENTS

DAVID EVANS AND ASSOCIATES INC.

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Checked by: Rodney Langer

Date: January 27, 2022

MARY C. DAHL
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REGISTERED
PROFESSIONAL ENGINEER

SECTION 01025B

MEASUREMENT AND PAYMENT – BID SCHEDULE B

1. GENERAL

A. The Contractor shall furnish and install all water system materials and equipment. This shall include, but is not limited to, items such as: PVC C900 water main, valves, fittings, fire hydrants and water service materials including PVC casing, polyethylene service pipe of all sizes, valves, connectors and adapters and shall include all labor, equipment and other necessary materials such as crushed rock, backfill gravel, bedding, concrete thrust blocking where allowed or other restraint, testing, disinfection, flushing, asphalt, trenching, backfill and compaction and restoration.

B. The Contract price bid and paid for each item shall constitute full compensation for all costs of furnishing and installing all necessary materials and providing and furnishing all other material, equipment, and supplies and for performing all labor and operations for completion of the Work as specified in these Contract Documents.

C. No measurement for payment will be made for any Lump Sum Bid Item. However, Lump Sum Bid Items that require work throughout the duration of the project or elements thereof may be paid in proportion to the measure of completion of other Bid Items.

D. It is the intent of this project and the listed bid items that the Work shall result in a complete, satisfactory, and proper operating system. All construction required to complete the Work as specified in these Contract Documents, but not specifically mentioned in this section, shall be considered incidental to those Bid Items for which payment is made.

E. The project scope may be reduced some amount if the successful Contractor's total bid price, including sales tax, for the project exceeds the available Owner funding. The quantities for all items not listed as lump sum (LS) have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity.

2. BID ITEM DESCRIPTIONS

A. **Mobilization**

(1) Measurement for payment of mobilization shall be as a lump sum. No more than 10 percent of the Bid Schedule B Bid Subtotal, less Minor Change amount, will be allowed for this item.

(2) The lump sum price for mobilization shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to perform mobilization, including establishment of the Contractor's field office and storage yard.

(3) Also included in this bid item is demobilization of all equipment, field office and restoration of storage yard.

(4) No partial payment will be made for this bid item. Payment of this bid item will not be made until 10 percent of the total original bid amount for this Bid Schedule is earned from other bid items.

B. **Furnish and Install 8-Inch PVC Water Main**
Furnish and Install 6-Inch PVC Water Main

(1) Measurement for payment for furnishing and installing PVC water main of the size listed in the Bid Schedule shall be by linear foot (measured horizontally) of pipe laid and tested and shall be measured along the pipe through fittings including hydrant tees, valves and couplings. The length of reducers shall be considered as length of the larger pipe size.

(2) The unit price per linear foot for each size and kind of pipe material shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing for existing water main and other utility conflicts, asphalt removal, trench excavation, hauling unsuitable or excess material, including asphalt, to an approved site, removing and properly disposing of any galvanized or asbestos cement (AC) pipe pieces removed from the trench, furnishing, laying and jointing pipe, backfilling, compaction, furnishing and installing tracer tape, dewatering, concrete thrust blocking where authorized, installing locking gaskets or restrained joint pipe, disinfecting the pipeline, pressure and bacteriological testing, temporary blow-offs, flushing, and cleanup for water main, complete-in-place, tested and ready for use.

(3) Payment for all work required and specified under the Contract, except for those items segregated in the Bid Schedule, shall be included in the unit price paid per foot of PVC Water Main.

(4) Also, specifically included in the bid price for this item are all costs associated with placing approved suitable native material as trench backfill outside of proposed pavement as shown on the Plans, included in the specifications and as allowed by the Owner. Crushed surfacing top course (5/8-inch minus crushed rock) used as pipe bedding will be measured and paid for under the bid item for Crushed Rock. Imported gravel borrow used for trench backfill will be measured and paid for under the bid item for Imported Gravel Borrow.

(5) Also specifically included in the unit price bid for this item, but not limited to, shall be all costs and expenses involved in maintaining and/or replacing all public or private utilities, restoring disturbed

areas, landscaping, structures or improvements which may have to be moved, or which may in any way be damaged by operations of the Contractor.

(6) Payment for clearing, grubbing, tunneling to avoid walls, structures and tree roots, tree removal, and pavement marking restoration to match existing is considered incidental to the work of constructing the water main, and all costs thereof shall be included in the unit price bid for each size of water main. Road surface restoration with crushed rock is included in a separate bid item. All other restoration (removal and reinstallation or replacement) including but not limited to, sodding, seeding, fertilizing, mulching, planting, topsoil, bark, etc. required to match existing surfaces is considered incidental and shall be included in this bid item.

(7) Payment for installation of fittings, bends, hydrants and valves will be made under other respective bid items.

(8) Payment for installation of 6-inch C900 PVC pipe used for fire hydrant runs is included in the unit price for standard fire hydrant assembly.

(9) Payment for installation of 6-inch or 8-inch C900 PVC nipples or spools used in connections to the existing system is included in the unit price for connection to the existing system.

(10) No partial payment for water mains will be made.

C. **Furnish and Install 8-Inch Gate Valve**
Furnish and Install 6-Inch Gate Valve

(1) Measurement for payment for furnishing and installing gate valves of the size listed in the Bid Schedule shall be per each valve installed and tested in place.

(2) The unit price per each for each size valve shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, trench excavation, bedding, laying and jointing pipe and fittings to valves, backfilling, concrete collar around valve boxes and valve clusters, furnishing and installing valve boxes and valve markers, painting valve boxes and valve markers and all associated cleanup, complete-in-place, tested and ready for use.

(3) Included in this bid item is abandoning existing valves on abandoned main by shutting valve, removing valve box, plugging valve and blocking if necessary.

(4) Payment for the 6-inch gate valves used on fire hydrant runs shall be included in the unit price for standard fire hydrant assembly.

(5) No partial payment for gate valves will be made.

D. **Furnish and Install Standard Fire Hydrant Assembly**

(1) Measurement for payment for furnishing and installing standard fire hydrant assemblies shall be per each fire hydrant assembly installed and tested in place.

(2) The unit price bid per each for standard fire hydrant assembly shall include all costs to furnish and install the fire hydrant assembly. Costs shall also include, but not be limited to, excavation, bedding with approved native material, hauling unsuitable or excess material to an approved site, laying and jointing pipe, restrained joints, backfilling, compaction, dewatering, disinfecting the pipeline, testing, flushing, painting, and cleanup, complete-in-place, tested and ready for use.

(3) Payment includes furnishing and installation of the entire fire hydrant assembly including the tee on the main, auxiliary gate valve and valve box, 6-inch C900 PVC pipe hydrant runs, fire hydrant, all fittings and restraints, gravel, concrete pad and all other items required for the installation of the fire hydrant assembly complete.

(4) Payment also includes all costs to carefully remove the existing hydrant and hydrant valve box from the abandoned water main and deliver in good condition to the Owner's maintenance or storage yard, plug and cap abandoned existing hydrant piping, backfill voids, and restore area to match existing.

(5) No partial payment for standard fire hydrant assembly will be made.

E. **Connection to Existing Water System**

(1) Measurement for payment for connection to the existing water system (six-inch or larger) shall be per each connection made to the Owner's existing water main and tested in place.

(2) The unit price per each for each connection to existing water system shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing to verify connection depth, trench excavation, bedding, furnishing, laying and jointing pipe and fittings, backfilling, temporary and permanent blocking, testing, flushing, disinfecting the pipeline, and cleanup, complete-in-place, tested and ready for use. Permanent bends and fittings installed to make connection will be paid for under separate bid item, however, caps or plugs required to abandon existing mains will be included in this bid item.

(3) Also included in this bid item are all costs to cut and cap existing main to be abandoned, including furnishing and installing ductile iron caps or plugs utilized in the abandonment of existing mains.

(4) Also included in this item are all costs of coordination with the Owner for system shut-downs and notification to affected water users.

(5) Also included in this item are all costs to furnish and install 6-inch or 8-inch PVC nipples or spools used in connections to the existing system.

(6) Connection to an existing or new water service line will not be counted as a connection to the existing system.

(7) A connection to the existing system shall be a cut-in connection.

(8) No partial payment for connection to existing system will be made.

F. **Furnish and Install DI Fittings**

(1) Measurement for payment of Ductile Iron (DI) fittings shall be per each fitting furnished and installed, including thrust block or mechanical joint restraints (Megalug® or equal)

(2) The unit price per each for bends and fittings shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental for furnishing and installing bends, fittings, adapters and installing thrust blocks or mechanical joint restraints (“Megalug”), complete-in-place, tested and ready for use.

(3) No payment under this bid item will be made for fire hydrant tee. Payment for fire hydrant tee shall be made under separate bid item for standard fire hydrant assembly.

(4) No payment under this bid item will be made for ductile iron caps or plugs utilized in the abandonment of existing mains. Payment for caps or plugs shall be made under separate bid item for connection to existing system.

(5) No payment under this bid item will be made for ductile iron fittings utilized for temporary blow-offs or temporary connections used for flushing and testing the new main. These temporary fittings are incidental to the unit price for the PVC water main bid items.

(6) No partial payment for this item will be made.

G. **Reconnect Existing Water Service with Existing Meter**
Reconnect Existing Water Service without Existing Meter

(1) Measurement for payment of reconnect existing water service shall be per each water service installed and customer service re-established.

(2) The unit contract price bid per each reconnect existing water service depends on the existence or lack of an existing meter.

(a) Reconnect Existing Water Service with Existing Meter shall be for water services where there is an existing meter box and

meter assembly for the service. A new service line and meter box shall be installed next to existing meter box. Owner will move the meter from the existing box at time service is transferred to the new main. Owner will provide a meter idler until meter is moved.

(b) Reconnect Existing Water Service without Existing Meter shall be for water services where an existing meter box and assembly cannot be found for the service. In these cases, the existing service line will need to be located, and a new service line and meter box shall be installed. Owner will provide and install a new meter at time service is transferred to the new main. Owner will provide a meter idler until meter is moved.

(3) The unit contract price bid per each for reconnect existing water service with or without existing meter shall be full pay for all work and materials to locate the existing service line and reconnect the water service per the details including new service line and fittings from the new main to the new meter box, and reconnecting to the customer's existing service line on the customer side of the new water meter and meter box.

(4) Bid item includes locating the existing service line, excavation, backfill, furnishing and installation of all water service materials, including but not limited to: service pipe, corporation stop, saddle, couplings and fittings, tracing wire, meter setter, meter box, meter box lid, front ball angle stops, single angle check valve and reconnect to the existing customer's service to re-establish service including all required service pipe, clamps, fittings and adapters on the customer side of the meter, complete-in-place, tested and ready for use.

(5) Some new service lines will need to be bored under existing retaining walls, fences, rockeries, landscaping, decorative edging, asphalt and concrete driveways, etc. This work is considered incidental to the reconnect existing water service bid items, whether shown on the plans or not.

(6) Also included are all restoration costs necessary to match existing conditions, including replacing asphalt and concrete driveways to match existing conditions.

(7) Also included are all costs by the Contractor to keep clean, and to re-clean if necessary, the customer's existing service line to prevent foreign matter from entering the service line. Should the customer experience problems with their service or reduced flow following construction due to plugging of the line, the Contractor shall employ a plumber to provide necessary cleaning or repairs and shall be responsible for all costs. If the Contractor fails to immediately correct

the problem, the Owner will coordinate the repairs and deduct the cost of the repair from any monies or payments due the Contractor.

(8) Also included are all required notifications and coordination with the Owner and customer during service transfer to the new main.

(9) Payment will be made per each customer service re-established. No partial payment for reconnect existing water service with or without existing meter will be made.

H. **Provide 1-Inch Water Service Line to Vacant Lot**
Provide 2-Inch Water Service Line to Two Vacant Lots

(1) Measurement for payment of Provide 1-inch or 2-inch water service line to vacant lot shall be per each water service installed to vacant lots for future water connections.

(2) The unit contract price bid per each for provide service line to vacant lot depends on the size of the tap on the main.

(a) Provide 1-inch water service line to vacant lot shall be for water services where a single service required for future development. The Contractor shall install the 1-inch service line per the detail and terminate in a meter box at the property line.

(b) Provide 2-inch water service line to two vacant lots shall be for water services where two services required for future development. The Contractor shall install the 2-inch service line similar to the detail to a meter box at the property line. Within the meter box, provide a 2-inch by two 1-inch manifold and terminate two 1-inch service lines in the meter box.

(3) The unit contract price bid per each for provide water service line to vacant lot shall be full pay for all work and materials to tap the new watermain and connect the water service per the standard details including from the new main to the new meter box on the property line.

(4) Bid item includes, excavation, backfill, furnishing and installation of all water service materials, including but not limited to: service pipe, corporation stop, saddle, couplings and fittings, tracing wire, meter setter, meter box, meter box lid, front ball angle stops, and single angle check valve, complete-in-place, tested and ready for use.

(5) Some new service lines will need to be bored under existing retaining walls, fences, rockeries, landscaping, decorative edging, asphalt and concrete driveways, etc. This work is considered incidental to the provide water service line to vacant lot bid items, whether shown on the plans or not.

(6) Also included are all restoration costs necessary to match existing conditions, including matching asphalt and concrete driveways.

I. **Trench Excavation Safety System (over 4 feet)**

(1) Measurement for payment of trench excavation safety system shall be as a lump sum.

(2) The lump sum price for trench excavation safety system shall be considered full compensation for all labor, materials, equipment and tools necessary to provide shoring in accordance with federal, state, tribal and local safety requirements.

(3) The Contractor shall include costs for all shoring needed to protect the work, adjacent property and improvements, utilities, structures, etc., and to provide safe working conditions in the trench.

(4) Trench safety shall include ditch box, sheeting or shoring. Trench widening will not be considered. Also included is a means of trench egress, located within 25 feet of workers in the trench at all times.

(5) The Contractor shall be exclusively responsible for providing the services of the Competent Person as referenced in OSHA Standards 29 CFR, Part 1926 and Section 296-155-650 Washington Administrative Code (WAC), relating to excavation, trenching and shoring.

(6) Payment will be made based on the approximate percentage of water main installed.

J. **Compaction Tests**

(1) Measurement for payment of compaction tests of trench backfill and/or crushed rock shall be per each, where required by permit or shown on the plans or specified herein.

(2) The unit price for compaction tests shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to furnishing and performing trench backfill and subgrade compaction tests.

(3) Areas that have failed to achieve the required compaction and that must be re-excavated, re-compacted and re-tested shall be done so at the Contractor's expense and no additional compensation will be made for re-excavation, re-compaction and re-testing.

(4) No partial payment for compaction tests will be made.

K. **Crushed Rock**

(1) Measurement for payment of crushed rock shall be per ton based on the weight of material installed. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Engineer or Owner construction representative daily. Wasted

materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(2) The unit price bid per ton for crushed rock shall be full compensation for all costs to provide and place crushed rock as shown in the Plans, as specified, or as directed by the Owner. Crushed rock will be used for pipe bedding, under pavement and as restoration for gravel surfaces disturbed by the water main work only.

(3) Costs shall include all costs for preparing the subgrade and furnishing, placing, grading and compaction of the materials.

(4) No distinction will be made between crushed surfacing top course (5/8-inch minus) or crushed surfacing base course (1-1/4-inch minus) materials. Areas of use of the respective particular material shall be based on the plans, details, and specifications or as directed by the Owner.

(5) Payment will be made based on certified load tickets collected from the driver at the time of delivery, subject to adjustment as noted above.

L. **Imported Gravel Borrow**

(1) Imported gravel borrow shall be imported material conforming to Gravel Borrow in accordance with WSDOT Standard Specifications Section 9-03.14(1).

(2) Measurement for payment of imported gravel borrow shall be per ton based on the weight of material installed. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Owner construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(3) The unit price per ton for imported gravel borrow shall be considered full compensation for all labor, materials, equipment, and tools necessary or incidental to furnishing, placing, and compacting imported gravel borrow as shown in the Plans, as specified, or as directed by the Owner.

(4) Also included in this bid item is the removal, haul, and proper disposal of the unsuitable material.

(5) Payment will be made based on certified load tickets collected from the driver at the time of delivery.

M. **Minor Change – Bid Schedule B**

(1) Payments or credits for changes amounting to $25,000 or less for any one item covered with Bid Schedule B may be made under the Bid Item “Minor Change Bid Schedule B”. At the discretion of the Owner, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in WSDOT Standard Specifications Section 1-04.4 Changes.

END OF SECTION 01025B

SECTION 01025C

MEASUREMENT AND PAYMENT – BID SCHEDULE C

1. GENERAL

A. The Contractor shall furnish and install all water system materials and equipment. This shall include, but is not limited to, items such as: PVC C900 water main, valves, fittings, fire hydrants and water service materials including PVC casing, polyethylene service pipe of all sizes, valves, connectors and adapters and shall include all labor, equipment and other necessary materials such as crushed rock, backfill gravel, bedding, concrete thrust blocking where allowed or other restraint, testing, disinfection, flushing, asphalt, trenching, backfill and compaction and restoration.

B. The Contract price bid and paid for each item shall constitute full compensation for all costs of furnishing and installing all necessary materials and providing and furnishing all other material, equipment, and supplies and for performing all labor and operations for completion of the Work as specified in these Contract Documents.

C. No measurement for payment will be made for any Lump Sum Bid Item. However, Lump Sum Bid Items that require work throughout the duration of the project or elements thereof may be paid in proportion to the measure of completion of other Bid Items.

D. It is the intent of this project and the listed bid items that the Work shall result in a complete, satisfactory, and proper operating system. All construction required to complete the Work as specified in these Contract Documents, but not specifically mentioned in this section, shall be considered incidental to those Bid Items for which payment is made.

E. The project scope may be reduced some amount if the successful Contractor's total bid price, including sales tax, for the project exceeds the available Owner funding. The quantities for all items not listed as lump sum (LS) have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity.

2. BID ITEM DESCRIPTIONS

A. **Mobilization**

(1) Measurement for payment of mobilization shall be as a lump sum. No more than 10 percent of the Bid Schedule C Bid Subtotal, less Minor Change amount, will be allowed for this item.

(2) The lump sum price for mobilization shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to perform mobilization and demobilization, including establishment of the Contractor's field office and storage yard.

(3) Also included in this bid item is demobilization of all equipment, field office and restoration of storage yard.

(4) No partial payment will be made for this bid item. Payment of this bid item will not be made until 10 percent of the total original bid amount for this Bid Schedule is earned from other bid items.

B. **Furnish and Install 10-Inch PVC Water Main**
Furnish and Install 8-Inch PVC Water Main
Furnish and Install 6-Inch PVC Water Main

(1) Measurement for payment for furnishing and installing PVC water main of the size listed in the Bid Schedule shall be by linear foot (measured horizontally) of pipe laid and tested and shall be measured along the pipe through fittings including hydrant tees, valves and couplings. The length of reducers shall be considered as length of the larger pipe size.

(2) The unit price per linear foot for each size and kind of pipe material shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing for existing water main and other utility conflicts, asphalt removal, trench excavation, hauling unsuitable or excess material, including asphalt, to an approved site, removing and properly disposing of any galvanized or asbestos cement (AC) pipe pieces removed from the trench, furnishing, laying and jointing pipe, backfilling, compaction, furnishing and installing tracer tape, dewatering, concrete thrust blocking where authorized, installing locking gaskets or restrained joint pipe, disinfecting the pipeline, pressure and bacteriological testing, temporary blow-offs, flushing, and cleanup for water main, complete-in-place, tested and ready for use.

(3) Payment for all work required and specified under the Contract, except for those items segregated in the Bid Schedule, shall be included in the unit price paid per foot of PVC Water Main.

(4) Also, specifically included in the bid price for this item are all costs associated with placing approved suitable native material as trench backfill outside of proposed pavement as shown on the Plans, included in the specifications and as allowed by the Owner. Crushed surfacing top course (5/8-inch minus crushed rock) used as pipe bedding will be measured and paid for under the bid item for Crushed Rock. Imported gravel borrow used for trench backfill will be measured and paid for under the bid item for Imported Gravel Borrow.

(5) Also specifically included in the unit price bid for this item, but not limited to, shall be all costs and expenses involved in maintaining

and/or replacing all public or private utilities, restoring disturbed areas, landscaping, structures or improvements which may have to be moved, or which may in any way be damaged by operations of the Contractor.

(6) Payment for clearing, grubbing, tunneling to avoid walls, structures and tree roots, tree removal, and pavement marking restoration to match existing is considered incidental to the work of constructing the water main, and all costs thereof shall be included in the unit price bid for each size of water main. Road surface restoration with crushed rock is included in a separate bid item. All other restoration (removal and reinstallation or replacement) including but not limited to, sodding, seeding, fertilizing, mulching, planting, topsoil, bark, etc. required to match existing surfaces is considered incidental and shall be included in this bid item.

(7) Payment for installation of fittings, bends, hydrants and valves will be made under other respective bid items.

(8) Payment for installation of 6-inch C900 PVC pipe used for fire hydrant runs is included in the unit price for standard fire hydrant assembly.

(9) Payment for installation of 6-inch, 8-inch or 10-inch C900 PVC nipples or spools used in connections to the existing system is included in the unit price for connection to the existing system.

(10) No partial payment for water mains will be made.

C. **Furnish and Install 10-Inch Gate Valve**
Furnish and Install 8-Inch Gate Valve
Furnish and Install 6-Inch Gate Valve

(1) Measurement for payment for furnishing and installing gate valves of the size listed in the Bid Schedule shall be per each valve installed and tested in place.

(2) The unit price per each for each size valve shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, trench excavation, bedding, laying and jointing pipe and fittings to valves, backfilling, concrete collar around valve boxes and valve clusters, furnishing and installing valve boxes and valve markers, painting valve boxes and valve markers and all associated cleanup, complete-in-place, tested and ready for use.

(3) Included in this bid item is abandoning existing valves on abandoned main by shutting valve, removing valve box, plugging valve and blocking if necessary.

(4) Payment for the 6-inch gate valves used on fire hydrant runs shall be included in the unit price for standard fire hydrant assembly.

(5) No partial payment for gate valves will be made.

D. **Furnish and Install Standard Fire Hydrant Assembly**

(1) Measurement for payment for furnishing and installing standard fire hydrant assemblies shall be per each fire hydrant assembly installed and tested in place.

(2) The unit price bid per each for standard fire hydrant assembly shall include all costs to furnish and install the fire hydrant assembly. Costs shall also include, but not be limited to, excavation, bedding with approved native material, hauling unsuitable or excess material to an approved site, laying and jointing pipe, restrained joints, backfilling, compaction, dewatering, disinfecting the pipeline, testing, flushing, painting, and cleanup, complete-in-place, tested and ready for use.

(3) Payment includes furnishing and installation of the entire fire hydrant assembly including the tee on the main, auxiliary gate valve and valve box, 6-inch C900 PVC pipe hydrant runs, fire hydrant, all fittings and restraints, gravel, concrete pad and all other items required for the installation of the fire hydrant assembly complete.

(4) Payment also includes all costs to carefully remove the existing hydrant and hydrant valve box from the abandoned water main and deliver in good condition to the Owner's maintenance or storage yard, plug and cap abandoned existing hydrant piping, backfill voids, and restore area to match existing.

(5) No partial payment for standard fire hydrant assembly will be made.

E. **Connection to Existing Water System**

(1) Measurement for payment for connection to the existing water system (six-inch or larger) shall be per each connection made to the Owner's existing water main and tested in place.

(2) The unit price per each for each connection to existing water system shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing to verify connection depth, trench excavation, bedding, furnishing, laying and jointing pipe and fittings, backfilling, temporary and permanent blocking, testing, flushing, disinfecting the pipeline, and cleanup, complete-in-place, tested and ready for use. Permanent bends and fittings installed to make connection will be paid for under separate bid item, however, caps

or plugs required to abandon existing mains will be included in this bid item.

(3) Also included in this bid item are all costs to cut and cap existing main to be abandoned, including furnishing and installing ductile iron caps or plugs utilized in the abandonment of existing mains.

(4) Also included in this item are all costs of coordination with the Owner for system shut-downs and notification to affected water users.

(5) Also included in this item are all costs to furnish and install 6-inch, 8-inch, or 10-inch PVC nipples or spools used in connections to the existing system.

(6) Connection to an existing or new water service line will not be counted as a connection to the existing system.

(7) Connection to existing PRV station will be measured and paid for under separate bid item.

(8) A connection to the existing system shall be a cut-in connection.

(9) No partial payment for connection to existing system will be made.

F. **Furnish and Install DI Fittings**

(1) Measurement for payment of Ductile Iron (DI) fittings shall be per each fitting furnished and installed, including thrust block or mechanical joint restraints (Megalug® or equal)

(2) The unit price per each for bends and fittings shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental for furnishing and installing bends, fittings, adapters and installing thrust blocks or mechanical joint restraints (“Megalug”), complete-in-place, tested and ready for use.

(3) No payment under this bid item will be made for fire hydrant tee. Payment for fire hydrant tee shall be made under separate bid item for standard fire hydrant assembly.

(4) No payment under this bid item will be made for ductile iron caps or plugs utilized in the abandonment of existing mains. Payment for caps or plugs shall be made under separate bid item for connection to existing system.

(5) No payment under this bid item will be made for ductile iron fittings utilized for temporary blow-offs or temporary connections used for flushing and testing the new main. These temporary fittings are incidental to the unit price for the PVC water main bid items.

(6) No partial payment for this item will be made.

G. **Reconnect to Existing PRV Station**

(1) Measurement for payment for reconnection to the existing PRV station shall be per lump sum for each connection of the replacement water main made to the Owner's existing PRV station, including supply and discharge connections, and tested in place.

(2) The unit price per each for each connection to existing PRV shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing to verify connection depth, trench excavation, bedding, furnishing, laying and jointing pipe and fittings, backfilling, temporary and permanent blocking, testing, flushing, disinfecting the pipeline, and cleanup, complete-in-place, tested and ready for use. Permanent bends and fittings installed to make connection will be paid for under separate bid item, however, caps or plugs required to abandon existing mains will be included in this bid item.

(3) Also included in this bid item are all costs to cut and cap existing main to be abandoned, including furnishing and installing ductile iron caps or plugs utilized in the abandonment of existing mains.

(4) Also included in this item are all costs of coordination with the Owner for system shut-downs and notification to affected water users.

(5) Also included in this item are all costs to furnish and install 6-inch, 8-inch or 10-inch PVC nipples or spools used in connections to the existing system.

(6) No partial payment for reconnection to existing PRV station will be made.

H. **Two (2)-inch Water Service to Fisheries Buildings**

(1) Measurement for payment of 2-inch water service to Fisheries Buildings shall be as a lump sum for the reconnection, complete in place.

(2) The lump sum price for 2-inch water service to Fisheries Buildings shall be considered full compensation for all labor, materials, equipment and tools necessary to provide new 2-inch HDPE SDR7 water service to existing Fisheries buildings in accordance the plans and with federal, state, tribal and local safety requirements.

(3) Included in this item is disconnecting the existing 6-inch AC water main from the existing main and capping the existing tee with a blind flange tapped 2-inch with a 2-inch gate valve and valve box. Using the disconnected 6-inch AC main as a casing, extend the 2-inch water service through the 6-inch AC main across the road with a tracer wire. Direct bury the 2-inch service line to and reconnect two existing water meters and connection at near the fishpond. Abandon

existing AC at fishpond after the meters are connected to the main in Totem Beach Road. Approximate total length of 2-inch service line is 350 feet.

I. **Trench Excavation Safety System (over 4 feet)**

(1) Measurement for payment of trench excavation safety system shall be as a lump sum.

(2) The lump sum price for trench excavation safety system shall be considered full compensation for all labor, materials, equipment and tools necessary to provide shoring in accordance with federal, state, tribal and local safety requirements.

(3) The Contractor shall include costs for all shoring needed to protect the work, adjacent property and improvements, utilities, structures, etc., and to provide safe working conditions in the trench.

(4) Trench safety shall include ditch box, sheeting or shoring. Trench widening will not be considered. Also included is a means of trench egress, located within 25 feet of workers in the trench at all times.

(5) The Contractor shall be exclusively responsible for providing the services of the Competent Person as referenced in OSHA Standards 29 CFR, Part 1926 and Section 296-155-650 Washington Administrative Code (WAC), relating to excavation, trenching and shoring.

(6) Payment will be made based on the approximate percentage of water main installed.

J. **Temporary Traffic Control**

(1) Measurement for payment of traffic control shall be as a lump sum.

(2) The lump sum price for traffic control shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to furnishing and performing traffic control. The lump sum price includes, but not limited to, providing flaggers, signs and warning lights and barricades and preparing and submitting a traffic control plan if requested by the road agency.

(3) Payment will be made based on the approximate percentage of water main and asphalt restoration installed.

K. **Temporary Erosion Control**

(1) Measurement for payment of temporary erosion control shall be as a lump sum.

(2) The lump sum price for temporary erosion control shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to controlling, preventing and cleanup of silt or soil erosion. The lump sum price includes, but not limited

to, furnishing and installing filter fabric catch basin inserts in all work area catch basins, furnishing and installing silt fence where required and any other measures required during construction to prevent silt or sediment from leaving the site.

(3) Costs shall also include costs to satisfactorily maintain the facilities including periodic cleanup and disposal of silt if necessary, and final cleanup and proper disposal of the temporary erosion control facilities at the end of construction.

(4) Payment will be made based on the approximate percentage of water main and asphalt restoration installed.

L. **Cement Concrete Traffic Curb and Gutter**
Cement Concrete Sidewalk
Cement Concrete Curb Ramp
Cement Concrete Driveway Entrance

(1) Measurement for payment of these items will be as noted here:

(a) Cement Concrete Traffic Curb and Gutter, per lineal foot, measured along the curb line, of curb and gutter removed and replaced to install the water main and appurtenances.

(b) Cement Concrete Sidewalk, per square yard, measured in place, of sidewalk removed and replaced to install the water main and appurtenances.

(c) Cement Concrete Curb Ramp, per each, removed and replaced to install the water main and appurtenances.

(d) Cement Concrete Driveway Entrance, per square yard, measured in place, of sidewalk removed and replaced to install the water main and appurtenances.

(2) Costs shall include all costs for preparing the subgrade and furnishing, placing and finishing of the concrete.

(3) The unit price as noted shall be considered full compensation for all labor, materials, equipment, and tools necessary or incidental to furnishing, placing, and compacting cement concrete for curb and gutter, sidewalk, curb ramp and/or driveway entrance, as shown in the Plans.

(4) Also included in this bid item is the removal, haul, and proper disposal of the removed cement concrete.

M. **Crushed Rock**

(1) Measurement for payment of crushed rock shall be per ton based on the weight of material installed. Certified weight tickets shall

accompany each load, a copy of tickets shall be given to the Engineer or Owner construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(2) The unit price bid per ton for crushed rock shall be full compensation for all costs to provide and place crushed rock as shown in the Plans, as specified, or as directed by the Owner. Crushed rock will be used for pipe bedding, under pavement and as restoration for gravel surfaces disturbed by the water main work only.

(3) Costs shall include all costs for preparing the subgrade and furnishing, placing, grading and compaction of the materials.

(4) No distinction will be made between crushed surfacing top course (5/8-inch minus) or crushed surfacing base course (1-1/4-inch minus) materials. Areas of use of the respective particular material shall be based on the plans, details, and specifications or as directed by the Owner.

(5) Payment will be made based on certified load tickets collected from the driver at the time of delivery, subject to adjustment as noted above.

N. **Imported Gravel Borrow**

(1) Imported gravel borrow shall be imported material conforming to Gravel Borrow in accordance with WSDOT Standard Specifications Section 9-03.14(1).

(2) Measurement for payment of imported gravel borrow shall be per ton based on the weight of material installed. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Owner construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(3) The unit price per ton for imported gravel borrow shall be considered full compensation for all labor, materials, equipment, and tools necessary or incidental to furnishing, placing, and compacting imported gravel borrow as shown in the Plans, as specified, or as directed by the Owner.

(4) Also included in this bid item is the removal, haul, and proper disposal of the unsuitable material.

(5) Payment will be made based on certified load tickets collected from the driver at the time of delivery.

O. **HMA Cl ½ in PG58H-22**

(1) Measurement for payment of HMA Cl ½ in PG58H-22 shall be per ton based on the weight of material installed as trench patch for the water main. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Owner's construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(2) The unit price per ton for asphalt shall be considered full compensation for all labor, materials, equipment, and tools necessary or incidental to furnishing, placing, and compacting hot mix asphalt as shown in the Plans, as specified, or as directed by the Owner or Road Agency.

(3) This bid item includes furnishing and installing both cold mix asphalt (if approved by the Owner and Road Agency) and hot mix asphalt.

(4) Also included in this bid item is the removal, haul, and proper disposal of the existing asphalt pavement removed from the trench. This bid item also includes the removal, haul and proper disposal of any cold mix used.

(5) Also included in this bid item is replacing all pavement markings to match existing conditions. These include, but are not limited to, paint striping, reflective pavement buttons, crosswalks and stop bars.

(6) Payment will be made based on certified load tickets collected from the driver at the time of delivery, less any wasted materials.

P. **Compaction Tests**

(1) Measurement for payment of compaction tests of trench backfill and/or crushed rock shall be per each, where required by permit or shown on the plans or specified herein.

(2) The unit price for compaction tests shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to furnishing and performing trench backfill and subgrade compaction tests.

(3) Areas that have failed to achieve the required compaction and that must be re-excavated, re-compacted and re-tested shall be done so at the Contractor's expense and no additional compensation will be made for re-excavation, re-compaction and re-testing.

(4) No partial payment for compaction tests will be made.

Q. **SPPC Plan**

(1) Measurement for payment of SPPC Plan shall be as a lump sum.

(2) The lump sum price for SPPC Plan shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to preparing, submitting and implementing the spill prevention, control and countermeasure plan to prevent any fuel, petroleum products, hazardous materials and all other materials from entering the storm drain system. The plan shall be prepared in accordance with WSDOT Section 1-07.15(1) and as modified in the Special Provisions.

(3) Costs shall also include costs to implement the Plan including cleanup at the end of construction.

(4) Payment will be made as follows: 50% of the lump sum amount after approval of the plan and 50% after all materials and equipment called for in the plan are mobilized to the project.

R. **Minor Change – Bid Schedule C**

(1) Payments or credits for changes amounting to $25,000 or less for any one item covered with Bid Schedule C may be made under the Bid Item “Minor Change Bid Schedule C”. At the discretion of the Owner, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in WSDOT Standard Specifications Section 1-04.4 Changes.

END OF SECTION 01025C

SECTION 01025D

MEASUREMENT AND PAYMENT – BID SCHEDULE D

1. GENERAL

A. The Contractor shall furnish and install all water system materials and equipment. This shall include, but is not limited to, items such as: PVC C900 water main, valves, fittings, fire hydrants and water service materials including PVC casing, polyethylene service pipe of all sizes, valves, connectors and adapters and shall include all labor, equipment and other necessary materials such as crushed rock, backfill gravel, bedding, concrete thrust blocking where allowed or other restraint, testing, disinfection, flushing, asphalt, trenching, backfill and compaction and restoration.

B. The Contract price bid and paid for each item shall constitute full compensation for all costs of furnishing and installing all necessary materials and providing and furnishing all other material, equipment, and supplies and for performing all labor and operations for completion of the Work as specified in these Contract Documents.

C. No measurement for payment will be made for any Lump Sum Bid Item. However, Lump Sum Bid Items that require work throughout the duration of the project or elements thereof may be paid in proportion to the measure of completion of other Bid Items.

D. It is the intent of this project and the listed bid items that the Work shall result in a complete, satisfactory, and proper operating system. All construction required to complete the Work as specified in these Contract Documents, but not specifically mentioned in this section, shall be considered incidental to those Bid Items for which payment is made.

E. The project scope may be reduced some amount if the successful Contractor's total bid price, including sales tax, for the project exceeds the available Owner funding. The quantities for all items not listed as lump sum (LS) have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity.

2. BID ITEM DESCRIPTIONS

A. **Mobilization**

(1) Measurement for payment of mobilization shall be as a lump sum. No more than 10 percent of the Bid Schedule D Bid Subtotal, less Minor Change amount, will be allowed for this item.

(2) The lump sum price for mobilization shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to perform mobilization and demobilization, including establishment of the Contractor's field office and storage yard.

(3) Also included in this bid item is demobilization of all equipment, field office and restoration of storage yard.

(4) No partial payment will be made for this bid item. Payment of this bid item will not be made until 10 percent of the total original bid amount for this Bid Schedule is earned from other bid items.

B. **Furnish and Install 10-Inch PVC Water Main**
Furnish and Install 8-Inch PVC Water Main

(1) Measurement for payment for furnishing and installing PVC water main of the size listed in the Bid Schedule shall be by linear foot (measured horizontally) of pipe laid and tested and shall be measured along the pipe through fittings including hydrant tees, valves and couplings. The length of reducers shall be considered as length of the larger pipe size.

(2) The unit price per linear foot for each size and kind of pipe material shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing for existing water main and other utility conflicts, asphalt removal, trench excavation, hauling unsuitable or excess material, including asphalt, to an approved site, removing and properly disposing of any galvanized or asbestos cement (AC) pipe pieces removed from the trench, furnishing, laying and jointing pipe, backfilling, compaction, furnishing and installing tracer tape, dewatering, concrete thrust blocking where authorized, installing locking gaskets or restrained joint pipe, disinfecting the pipeline, pressure and bacteriological testing, temporary blow-offs, flushing, and cleanup for water main, complete-in-place, tested and ready for use.

(3) Payment for all work required and specified under the Contract, except for those items segregated in the Bid Schedule, shall be included in the unit price paid per foot of PVC Water Main.

(4) Also, specifically included in the bid price for this item are all costs associated with placing approved suitable native material as trench backfill outside of proposed pavement as shown on the Plans, included in the specifications and as allowed by the Owner. Crushed surfacing top course (5/8-inch minus crushed rock) used as pipe bedding will be measured and paid for under the bid item for Crushed Rock. Imported gravel borrow used for trench backfill will be measured and paid for under the bid item for Imported Gravel Borrow.

(5) Also specifically included in the unit price bid for this item, but not limited to, shall be all costs and expenses involved in maintaining and/or replacing all public or private utilities, restoring disturbed

areas, landscaping, structures or improvements which may have to be moved, or which may in any way be damaged by operations of the Contractor.

(6) Payment for clearing, grubbing, tunneling to avoid walls, structures and tree roots, tree removal, and pavement marking restoration to match existing is considered incidental to the work of constructing the water main, and all costs thereof shall be included in the unit price bid for each size of water main. Road surface restoration with crushed rock is included in a separate bid item. All other restoration (removal and reinstallation or replacement) including but not limited to, sodding, seeding, fertilizing, mulching, planting, topsoil, bark, etc. required to match existing surfaces is considered incidental and shall be included in this bid item.

(7) Payment for installation of fittings, bends, hydrants and valves will be made under other respective bid items.

(8) Payment for installation of 8-inch or 10-inch C900 PVC nipples or spools used in connections to the existing system is included in the unit price for connection to the existing system.

(9) No partial payment for water mains will be made.

C. **Furnish and Install 10-Inch Gate Valve**
Furnish and Install 8-Inch Gate Valve

(1) Measurement for payment for furnishing and installing gate valves of the size listed in the Bid Schedule shall be per each valve installed and tested in place.

(2) The unit price per each for each size valve shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, trench excavation, bedding, laying and jointing pipe and fittings to valves, backfilling, concrete collar around valve boxes and valve clusters, furnishing and installing valve boxes and valve markers, painting valve boxes and valve markers and all associated cleanup, complete-in-place, tested and ready for use.

(3) Included in this bid item is abandoning existing valves on abandoned main by shutting valve, removing valve box, plugging valve and blocking if necessary.

(4) No partial payment for gate valves will be made.

D. **Connection to Existing Water System**

(1) Measurement for payment for connection to the existing water system (six-inch or larger) shall be per each connection made to the Owner’s existing water main and tested in place.

(2) The unit price per each for each connection to existing water system shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to the work including, but not limited to, potholing to verify connection depth, trench excavation, bedding, furnishing, laying and jointing pipe and fittings, backfilling, temporary and permanent blocking, testing, flushing, disinfecting the pipeline, and cleanup, complete-in-place, tested and ready for use. Permanent bends and fittings installed to make connection will be paid for under separate bid item, however, caps or plugs required to abandon existing mains will be included in this bid item.

(3) Also included in this bid item are all costs to cut and cap existing main to be abandoned, including furnishing and installing ductile iron caps or plugs utilized in the abandonment of existing mains.

(4) Also included in this item are all costs of coordination with the Owner for system shut-downs and notification to affected water users.

(5) Also included in this item are all costs to furnish and install 8-inch, or 10-inch PVC nipples or spools used in connections to the existing system.

(6) Connection to an existing or new water service line will not be counted as a connection to the existing system.

(7) Connection to existing PRV station will be measured and paid for under separate bid item.

(8) A connection to the existing system shall be a cut-in connection.

(9) No partial payment for connection to existing system will be made.

E. **Furnish and Install DI Fittings**

(1) Measurement for payment of Ductile Iron (DI) fittings shall be per each fitting furnished and installed, including thrust block or mechanical joint restraints (Megalug® or equal)

(2) The unit price per each for bends and fittings shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental for furnishing and installing bends, fittings, adapters and installing thrust blocks or mechanical joint restraints (“Megalug”), complete-in-place, tested and ready for use.

(3) No payment under this bid item will be made for fire hydrant tee. Payment for fire hydrant tee shall be made under separate bid item for standard fire hydrant assembly.

(4) No payment under this bid item will be made for ductile iron caps or plugs utilized in the abandonment of existing mains. Payment for caps or plugs shall be made under separate bid item for connection to existing system.

(5) No payment under this bid item will be made for ductile iron fittings utilized for temporary blow-offs or temporary connections used for flushing and testing the new main. These temporary fittings are incidental to the unit price for the PVC water main bid items.

(6) No partial payment for this item will be made.

F. **Reconnect Existing 2-inch Water Service**
Reconnect Existing 1-inch Water Service

(1) Measurement for payment of reconnect existing water service of the size listed in the Bid Schedule shall be per each water service installed and customer service re-established.

(2) The unit contract price bid per each for reconnect existing water service shall be full pay for all work and materials to locate the existing service line and reconnect the water service per the details including new service line and fittings from the new main to the new meter box, and reconnecting to the customer's existing service line on the customer side of the new water meter and meter box.

(3) Bid item includes locating the existing service line, excavation, backfill, furnishing and installation of all water service materials, including but not limited to: service pipe, corporation stop, saddle, couplings and fittings, tracing wire, meter setter, meter box, meter box lid, front ball angle stops, single angle check valve and reconnect to the existing customer's service to re-establish service including all required service pipe, clamps, fittings and adapters on the customer side of the meter, complete-in-place, tested and ready for use.

(4) Some new service lines will need to be bored under existing retaining walls, fences, rockeries, landscaping, decorative edging, asphalt and concrete driveways, etc. This work is considered incidental to the reconnect existing water service bid items, whether shown on the plans or not.

(5) Also included are all restoration costs necessary to match existing conditions, including replacing asphalt and concrete driveways to match existing conditions.

(6) Also included are all costs by the Contractor to keep clean, and to re-clean if necessary, the customer's existing service line to prevent foreign matter from entering the service line. Should the customer experience problems with their service or reduced flow following construction due to plugging of the line, the Contractor shall employ a plumber to provide necessary cleaning or repairs and shall be responsible for all costs. If the Contractor fails to immediately correct the problem, the Owner will coordinate the repairs and deduct the cost of the repair from any monies or payments due the Contractor.

(7) Also included are all required notifications and coordination with the Owner and customer during service transfer to the new main.

(8) Payment will be made per each customer service re-established. No partial payment for reconnect existing water service with or without existing meter will be made.

G. **Trench Excavation Safety System (over 4 feet)**

(1) Measurement for payment of trench excavation safety system shall be as a lump sum.

(2) The lump sum price for trench excavation safety system shall be considered full compensation for all labor, materials, equipment and tools necessary to provide shoring in accordance with federal, state, tribal and local safety requirements.

(3) The Contractor shall include costs for all shoring needed to protect the work, adjacent property and improvements, utilities, structures, etc., and to provide safe working conditions in the trench.

(4) Trench safety shall include ditch box, sheeting or shoring. Trench widening will not be considered. Also included is a means of trench egress, located within 25 feet of workers in the trench at all times.

(5) The Contractor shall be exclusively responsible for providing the services of the Competent Person as referenced in OSHA Standards 29 CFR, Part 1926 and Section 296-155-650 Washington Administrative Code (WAC), relating to excavation, trenching and shoring.

(6) Payment will be made based on the approximate percentage of water main installed.

H. **Temporary Traffic Control**

(1) Measurement for payment of traffic control shall be as a lump sum.

(2) The lump sum price for traffic control shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to furnishing and performing traffic control. The lump sum price includes, but not limited to, providing flaggers, signs and warning lights and barricades and preparing and submitting a traffic control plan if requested by the road agency.

(3) Payment will be made based on the approximate percentage of water main and asphalt restoration installed.

I. **Temporary Erosion Control**

(1) Measurement for payment of temporary erosion control shall be as a lump sum.

(2) The lump sum price for temporary erosion control shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to controlling, preventing and cleanup of silt or soil erosion. The lump sum price includes, but not limited to, furnishing and installing filter fabric catch basin inserts in all work area catch basins, furnishing and installing silt fence where required and any other measures required during construction to prevent silt or sediment from leaving the site.

(3) Costs shall also include costs to satisfactorily maintain the facilities including periodic cleanup and disposal of silt if necessary, and final cleanup and proper disposal of the temporary erosion control facilities at the end of construction.

(4) Payment will be made based on the approximate percentage of water main and asphalt restoration installed.

J. **Crushed Rock**

(1) Measurement for payment of crushed rock shall be per ton based on the weight of material installed. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Engineer or Owner construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(2) The unit price bid per ton for crushed rock shall be full compensation for all costs to provide and place crushed rock as shown in the Plans, as specified, or as directed by the Owner. Crushed rock will be used for pipe bedding, under pavement and as restoration for gravel surfaces disturbed by the water main work only.

(3) Costs shall include all costs for preparing the subgrade and furnishing, placing, grading and compaction of the materials.

(4) No distinction will be made between crushed surfacing top course (5/8-inch minus) or crushed surfacing base course (1-1/4-inch minus) materials. Areas of use of the respective particular material shall be based on the plans, details, and specifications or as directed by the Owner.

(5) Payment will be made based on certified load tickets collected from the driver at the time of delivery, subject to adjustment as noted above.

K. **Imported Gravel Borrow**

(1) Imported gravel borrow shall be imported material conforming to Gravel Borrow in accordance with WSDOT Standard Specifications Section 9-03.14(1).

(2) Measurement for payment of imported gravel borrow shall be per ton based on the weight of material installed. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Owner construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(3) The unit price per ton for imported gravel borrow shall be considered full compensation for all labor, materials, equipment, and tools necessary or incidental to furnishing, placing, and compacting imported gravel borrow as shown in the Plans, as specified, or as directed by the Owner.

(4) Also included in this bid item is the removal, haul, and proper disposal of the unsuitable material.

(5) Payment will be made based on certified load tickets collected from the driver at the time of delivery.

L. **HMA Cl ½ in PG58H-22**

(1) Measurement for payment of HMA Cl ½ in PG58H-22 shall be per ton based on the weight of material installed as trench patch for the water main. Certified weight tickets shall accompany each load, a copy of tickets shall be given to the Owner's construction representative daily. Wasted materials will not be included in the measurement or payment. Only materials placed within the pay limits shown on the Plans or specified will be considered for payment. Material placed outside of the pay limits will be deducted from the certified tickets.

(2) The unit price per ton for asphalt shall be considered full compensation for all labor, materials, equipment, and tools necessary or incidental to furnishing, placing, and compacting hot mix asphalt as shown in the Plans, as specified, or as directed by the Owner or Road Agency.

(3) This bid item includes furnishing and installing both cold mix asphalt (if approved by the Owner and Road Agency) and hot mix asphalt.

(4) Also included in this bid item is the removal, haul, and proper disposal of the existing asphalt pavement removed from the trench.

This bid item also includes the removal, haul and proper disposal of any cold mix used.

(5) Also included in this bid item is replacing all pavement markings to match existing conditions. These include, but are not limited to, paint striping, reflective pavement buttons, crosswalks and stop bars.

(6) Payment will be made based on certified load tickets collected from the driver at the time of delivery, less any wasted materials.

M. **Compaction Tests**

(1) Measurement for payment of compaction tests of trench backfill and/or crushed rock shall be per each, where required by permit or shown on the plans or specified herein.

(2) The unit price for compaction tests shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to furnishing and performing trench backfill and subgrade compaction tests.

(3) Areas that have failed to achieve the required compaction and that must be re-excavated, re-compacted and re-tested shall be done so at the Contractor's expense and no additional compensation will be made for re-excavation, re-compaction and re-testing.

(4) No partial payment for compaction tests will be made.

N. **SPPC Plan**

(1) Measurement for payment of SPPC Plan shall be as a lump sum.

(2) The lump sum price for SPPC Plan shall be considered full compensation for all labor, materials, equipment and tools necessary or incidental to preparing, submitting and implementing the spill prevention, control and countermeasure plan to prevent any fuel, petroleum products, hazardous materials and all other materials from entering the storm drain system. The plan shall be prepared in accordance with WSDOT Section 1-07.15(1) and as modified in the Special Provisions.

(3) Costs shall also include costs to implement the Plan including cleanup at the end of construction.

(4) Payment will be made as follows: 50% of the lump sum amount after approval of the plan and 50% after all materials and equipment called for in the plan are mobilized to the project.

O. **Minor Change – Bid Schedule D**

(1) Payments or credits for changes amounting to $25,000 or less for any one item covered with Bid Schedule D may be made under the Bid Item “Minor Change Bid Schedule D”. At the discretion of the Owner, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in WSDOT Standard Specifications Section 1-04.4 Changes.

END OF SECTION 01025D

SECTION 02001

STANDARD SPECIFICATIONS

1. GENERAL

a. The system components in this Division shall be designed, constructed, delivered and installed in accordance with the best practices and methods. The work in general shall be performed in accordance with latest and best practices in applicable trades to provide the highest quality possible.

b. Portions of the Work shall be in accordance with the "Standard Specifications for Road, Bridge and Municipal Construction, 2021 Edition," prepared by Washington State Department of Transportation hereinafter referred to as the "Washington Standard Specifications", “Washington Specifications” or “Standard Specifications”. The words Engineer, department, secretary, State or other similar terms used in the Washington Specification shall be substituted by the word District. References to measurements and payments in the Standard Specifications shall not apply to this Contract.

c. The detailed specifications herein contained shall supersede any provisions of the Washington Standard Specifications in conflict herewith.

d. Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

(1) Addenda,

(2) Bid Form,

(3) Technical Specifications

(4) Contract Plans,

(5) Washington State regulations (most current edition),

(6) Owner direction

END OF SECTION 02001

SECTION 02010

SUBSURFACE INVESTIGATION

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Job Site Administration: Section 01043

1.2 SOILS REPORTS

A. Available soils information for the project area is attached as Appendix A.

B. Contractor shall visit the site and become acquainted with site conditions before submitting a bid and the submission of a bid will be prima facie evidence that the Contractor has done so.

C. Other than the information provided herein, the Contractor is solely responsible for conducting additional subsurface investigation for this project.

1.3 INDEMNITY

A. Soils investigation data are available for information and convenience of Bidders, and is not warranted to indicate actual conditions.

B. Owner, Architect, and/or Engineers do not assume responsibility for variations in kind, depth, quantity, and condition of soils. Owner, Architect, and/or Engineers disclaim responsibility for accuracy, true location, and extent of soils investigation prepared by others; and further disclaim responsibility for interpretation of soils investigation data by Bidders such as projecting soil bearing values, rock profiles, soil stability, and presence, level, and extent of underground water.

C. Soils investigation report and data are part of Contract Documents only for informational purposes. Report may not have data in all project areas where structures may reside.

D. Report any variances from Geotechnical Report in writing to the Owner's Representative.

*** * * END OF SECTION * * ***

SECTION 02050

DEMOLITION

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222
B. Paving and Surfacing: Section 02500

1.2 PROTECTION

A. Streets, roads, adjacent property and other work to remain shall be protected throughout the work.

B. Pavement may be sawcut only where authorized and only to the extent specified. Disc-cutting is not allowed.

C. Any material damaged by Contractor's operations shall be replaced with new material by the Contractor.

1.3 CUTTING PAVEMENT, CURBS AND WALKS

A. Unless specified otherwise by the right-of-way permit, cutting and replacement shall be as specified in Section 02500.

1.4 PRIVATE DRIVEWAYS, CULVERTS AND MISCELLANEOUS

A. Pipe laying operations in certain areas may necessitate temporary removal of mail boxes, private driveways, drains, service lines, conduits, etc. to facilitate construction. In the event that the Contractor finds it necessary to remove the above mentioned items, it is to be understood that it will be the Contractor’s responsibility to restore these items in a manner equal to their original condition. The Contractor shall maintain adequate temporary provisions for domestic deliveries and utilities service and access to fire fighting equipment.

B. The preceding requirement will be the same for any temporary removal of road culverts, whether under state, county or private jurisdiction.

C. The cost of the above described work shall be included in the price bid for pipe and no additional compensation shall be made to the Contractor.

D. The Contractor shall make every effort to prevent blocking private driveways for more than a reasonable time and shall make such driveways immediately accessible on order of the property owner.

*** * * END OF SECTION * * ***

SECTION 02102

CLEARING AND GRUBBING

1. GENERAL

a. The Work specified in this Section shall consist of clearing and grubbing those areas as shown or specified.

b. Clearing shall include the removal and disposal of all vegetative growth such as trees, shrubs, brush and other vegetation, down timber, rotten wood, rubbish and other objectionable materials, except such objects which are designated to remain. It shall include, but not be limited to, the removal of buildings, fences, lumber, trash piles and other obstructions interfering with the construction.

c. Grubbing shall include the removal and disposal of all stumps, roots, vegetative matter and all structures in or upon the ground, the removal of which is not prescribed as CLEARING, such as wood curbs, planking, wooden culverts, wooden catch basins, drains, stairways, etc.

d. The limits of clearing and grubbing will be as required for the Contractor's operations unless otherwise shown or specified. It shall be the Contractor's responsibility to determine these limits providing they do not extend beyond the property, right-of-way or easement lines. the limits of clearing and grubbing shall be to such width as will provide for the excavation of the trench, storage area alongside the trench for excavated material and backfill, storage area for pipe and materials and any haul roads which may be necessary.

e. Claims for damages for trees and shrubbery designated to remain shall be paid by the Contractor as specified in the Special Conditions.

2. MATERIALS

a. Grubbing material shall be disposed of in accordance with WSDOT standard specifications.

3. CONSTRUCTION DETAILS

a. Clearing

(1) Within the limits described, all vegetative growth such as trees, shrubs, brush, logs, fences, upturned stumps and roots of down trees shall be removed and disposed. All trees shall be felled within the area to be cleared. Where the tree limb structure interferes with utility wires, or where the trees to be felled are in close proximity to utility wires, the trees shall be removed in such a manner so as to eliminate the possibility of damage to the utility.

(2) All buildings, fences, lumber piles, trash and other obstructions, except utility poles, within the area to be cleared shall be removed and disposed by the Contractor.

(3) All fences adjoining any excavation or embankment that may be damaged or buried shall be carefully removed and placed or set aside on the adjoining property. Upon completion of backfilling and cleanup, the fence shall be replaced in its original location. Materials damaged by removal shall be replaced with new materials of equal or better quality than the existing fence at no additional cost to the Owner.

(4) Low limbs of existing ornamental trees that are not to be removed which will interfere with the Contractor's operation shall be trimmed. The trimming shall be performed in a professional manner by competent personnel prior to machine operations and in such a manner as the Owner may direct.

b. Grubbing

(1) Within the limits described, all stumps, roots, foundations and planking embedded within the ground shall be removed and disposed. Piling shall be removed to a minimum depth of 2 feet below subgrade or 2 feet below original ground, whichever is lower.

(2) Where it is necessary to remove stumps and where there are surface or subsurface improvements, the Contractor shall be responsible for determining which of the agencies, public or private, have underground or service utilities in the vicinity of the stump to be removed; and further, it shall notify each agency and request its assistance in locating its service.

(3) Where telephone cable and/or ducts, water mains, gas mains, steam mains, and sewer trunks exist and are likely to be damaged, special care shall be taken, and roots of stump shall be cut off in such a manner that the existing utility installations will not be damaged in any way.

(4) Regardless of the cooperation of affected agencies and utilities, the Contractor shall be responsible for any damage to services and utilities that are attributable to its operations, and shall be responsible for the necessary repairs thereto.

(5) Any damage resulting from the Contractor's operations to existing improvements within the area to be grubbed but which are not required to be removed by the grubbing shall be repaired by the Contractor and at the Contractor's expense. The Contractor will not

be held responsible for damages to such improvements if the damage occurred previous to beginning of the Contract.

c. Waste Disposal Site

All debris and refuse generated by clearing and grubbing operations except as otherwise specified, shall be hauled to a disposal site obtained by the Contractor. No stock piling of waste will be permitted. The Contractor's operations shall conform to all local, State, and Federal regulations regarding disposal of material.

END OF SECTION 02102

SECTION 02103

REMOVAL OF EXISTING STREET IMPROVEMENTS

1. GENERAL

The work specified in this Section shall consist of removing and disposing various existing street improvements, such as pavements, structures, pipe, curb and gutter and other items necessary for construction of the Project.

2. MATERIALS

NOT USED

3. CONSTRUCTION

a. General

(1) The removal of existing street improvements shall be conducted in such a manner as not to damage existing utilities or any portion of the existing street improvements that are to remain. Any deviation in this matter will obligate the Contractor at its own expense to repair, replace or otherwise make proper restoration.

(2) All pavement shall be removed to the limits and in accordance with the details as shown or specified. The limits of pavement removal shall be exceeded only where specifically approved by the Owner. Pavement removal shall not be extended to existing expansion joints or paving cracks outside the indicated removal limits except with the approval of the Owner or as directed on the plans.

(3) Existing pavement shall be cut clean to vertical and straight lines. Concrete saw, jackhammer or other means shall be used for cutting existing pavements. Cutting of pavements with excavation equipment will not be permitted. Cuttings shall be marked out ahead of construction to a width so as to provide the required setback from the edges of actual excavation as shown or specified. In the event the trench excavation becomes wider than the initial cut in the surfacing, the surfacing material shall be recut to the minimum setback from all edges of the actual excavation at no additional cost to the Owner.

(4) All castings, pipe and other material taken from removed improvements shall become the Contractor's property for disposal.

b. Removal of Cement Concrete Pavement, Driveways, Sidewalks

(1) The breakline for removal of existing cement concrete roadway panels overlaid with asphalt pavement shall be established by saw cutting. The depth of the saw cut shall be as required to produce a

uniform cut through the total depth of the asphalt/concrete pavement layer without spalling, cracking or otherwise damaging pavement outside the removal limits.

(2) Cement concrete driveway and/or sidewalk shall be removed to existing adjacent and convenient construction or expansion joints or as directed by the District. The driveway and/or sidewalk shall be replaced in kind following installation of the water facilities. Exposed gravel driveway shall be replaced to match existing.

(3) The Contractor will not be allowed to begin pavement removal until there is a clean break along the line to insure that pavement and curbs, outside of the breakline will not be accidentally damaged while lifting the broken pavement with excavating equipment. Mechanical-type pavement breakers may be used up to within 18 inches of the breakline.

c. Removal of Asphalt Pavements

Asphalt concrete pavement, bituminous road mix, multiple lift bituminous surface treatments and any combination thereof to be removed in connection with construction shall be removed to clean straight lines by sawcutting.

d. Removal of Catch Basins, Manholes, Curb Inlets, Sumps, etc.

(1) Where structures or installations of concrete, brick, blocks, etc. interfere with the construction, they shall be removed and replaced, or abandoned where shown. Where structures are to be abandoned, all pipe openings in and out of the structure shall be properly plugged water tight with concrete, or with mortar and masonry, blocks and bricks.

e. Existing Stakes and Marks

All section, section subdivision, plat, property corner, USED, USC, USGS and any official monuments or bench marks shall be carefully preserved or referenced and replaced. In the event any such monument or marker is disturbed as a result of the Contractor's operations, the monument or marker shall be reset by a registered land surveyor in accordance with state, county and/or local agency requirements as applicable.

f. Removal of Existing Water Main

All existing water main, fittings, valves and other appurtenances that interfere with proposed facilities shall be removed and disposed of by the Contractor. This includes, but is not limited to, galvanized pipe and asbestos cement (AC) pipe where indicated on the Plans or as directed by Owner.

To cut or remove existing AC pipe, a fee and permit is required from the Puget Sound Air Pollution Control Agency. In addition, Washington State Department of Labor and Industries requires that the operators removing asbestos be certified.

If possible, connections to existing AC pipe shall be completed by carefully disassembling the AC piping without sawcutting the pipe and connecting at existing pipe joints with appropriate transition couplings. Connection at an existing joint may require longer PVC or D.I pipe nipples or spools than may ordinarily be required.

AC pipe required to be removed shall be disposed of at an approved disposal facility. The Contractor shall be responsible for all fees, certifications and permits, and work shall be performed in accordance with requirements of the various agencies.

The Contractor shall conduct all work related to existing asbestos materials in accordance with WISHA safety regulations and provisions of WAC 296-62-077, WAC 295-65 and the requirements of the Puget Sound Air Pollution Control Agency Regulation III Article 4 (206 343-8800). Advance notice of work, including the application to perform an asbestos project, and the appropriate fee will be required. The application must be completed online at https://www.pscleanair.gov/185/Asbestos. The Contractor shall provide a copy of the application to the Owner and the Engineer prior to the start of construction.

Work crews shall be provided with proper protective clothing and equipment. Waste asbestos materials and materials, clothing, etc. used in asbestos handling and removal shall be disposed of in a manner consistent with the regulations and provisions cited above.

The Contractor (person or organization removing asbestos with certified asbestos workers) shall assume ALL risk and all liability for the removal and disposal of the asbestos, and the Contractor shall comply with all federal, state and local laws, statutes and regulatory regulations and requirements including, but not limited to, the requirements relating to environmental pollutants and the requirements relating to the removal and disposal of asbestos. The Contractor shall insure that the asbestos removal is pursuant to all state and federal laws and regulations. The Contractor shall be responsible for any and all fines or penalties which may be levied due to the Contractor's violation of any of the aforementioned laws and regulations.

END OF SECTION 02103

SECTION 02150

SHORING

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222

1.2 QUALITY ASSURANCE

A. The Contractor shall provide, place and maintain responsibility for shoring, sheeting, bracing, sloping or otherwise support the sides of trenches and excavations, including embankments by a means of sufficient strength to protect employees. Such shoring and associated responsibilities shall be in accordance with federal, state and local safety requirements (the most stringent requirement prevailing), including OSHA Standards 29 CFR, Part 1926 and Revised Code of Washington (RCW) 49.17 and 39.04.180.

1.3 COMPETENT PERSON

A. The Contractor shall be exclusively responsible for providing the services of the Competent Person as referenced in Section 296-155-650 Washington Administrative Code (WAC) and OSHA Standards 29 CFR, Part 1926, relating to excavation, trenching and shoring.

B. The Contractor shall be exclusively responsible for providing the services of a registered professional engineer for the design of the trench protective system as required in WAC Section 296-155-657.

C. Representatives of the District and Engineer shall not be required to perform the roles of Competent Person or registered professional engineer as defined in WAC 296-155 or OSHA Part 1926.

1.4 SUBMITTALS

A. Contractor shall submit certification of current training for Competent Person or Persons to the District.

2. PRODUCTS

2.1 SHORING SYSTEMS

A. Materials used shall be at the Contractor's option and in accordance with WAC 296-155 Part N Excavation, Trenching and Shoring or OSHA Part 1926 as a minimum.

3. EXECUTION

3.1 SAFETY REQUIREMENTS

Shoring shall be placed in accordance with federal, state and local safety requirements (the most stringent requirement prevailing). All trenches 4 feet and over in depth on any side shall be shored.

3.2 SHORING SYSTEMS

A. The Contractor shall provide all shoring systems needed to protect the work, adjacent property and improvements, utilities, pavement, etc., and to provide safe working conditions in the trench.

B. Contractor shall perform all trenching in a safe manner and maintain safety systems to prevent death or injury to personnel or damage to structures, utilities or property in or near excavation. Contractor shall take necessary precautions to ensure that no loads, except those included in safety system design, are imposed upon trench walls. Contractor's Competent Person(s) shall maintain a copy of and implement OSHA trenching safety regulations at the worksite.

C. Removal of any or all shoring systems from the trench shall be accomplished in such a manner as to fulfill all of the above requirements and shall also be accomplished in such a manner as to prevent any damage to the work. Removal of trench safety system to proceed under the direction of Contractor's Competent Person(s). After removing trench safety systems, all voids shall be immediately filled and compacted to prevent collapse of trench walls.

D. Damages resulting from improper shoring or from failure to shore shall be the sole responsibility of the Contractor.

E. If evidence of possible cave-ins or slides is apparent or an installed trench safety system is damaged, work in trench shall immediately cease and personnel evacuated from hazardous area and District notified. Personnel shall not re-enter excavation until necessary repairs or replacements are completed, inspected and approved by the Contractor's Competent Person(s). Repair and replacement of damaged safety system shall be Contractor's sole expense.

F. Should the Owner 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 at the market value thereof.

G. Excavations shall be backfilled by days end. If excavation remains open, it shall be shored and covered by steel sheeting.

3.3 SPECIAL REQUIREMENT FOR FLEXIBLE PIPE

A. Shoring to be removed, or moveable trench shields or boxes, shall be located at least 2 pipe diameters away from the pipe if the bottom of the shoring, shield or box extends below the top of

flexible pipe, unless a satisfactory means of reconsolidating the bedding or side support material disturbed by shoring removal can be demonstrated.

B. Damages resulting from improper shoring or failure to shore shall be the sole responsibility of the Contractor.

* * * END OF SECTION * * *

SECTION 02203

CONTROL OF WATER

1. GENERAL

a. The Work specified in this Section shall consist of providing for the control and removal of water to keep excavations free of water during construction. Control of water of the excavations, including temporary facilities to treat or dispose of such water, shall be considered as incidental to the construction and all costs thereof shall be included in various unit contract prices in the Bid Form.

b. The Contractor shall obtain any permits necessary for their control of water operations.

c. All control of water operations shall be adequate to assure the integrity of the finished project and shall be the responsibility of the Contractor.

2. MATERIALS

NOT USED

3. CONSTRUCTION

a. All excavation and placement of backfill and fill shall be carried out in the dry. The Contractor shall provide all necessary machinery, appliances and equipment to keep excavations 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 to cause a nuisance or a menace to the public. The Contractor shall at all times have on hand sufficient pumping equipment and machinery in good working condition for all emergencies, including power outage, and shall have available at all times competent workmen for the operation of the pumping equipment. The dewatering systems shall not be shut down between shifts, on holidays or weekends, or during work stoppage without written permission from the Owner.

b. Before dewatering is started, the Contractor shall obtain approval from the Owner for the method, installation and details of the dewatering system it proposes to use. Except where piling is used, open and cased sumps shall not be used as primary dewatering for excavations deeper than 3 feet below the static water table. Control of siltation and other erosion control methods shall coordinate with this operation. Dispose of water so as not to cause injury to public or private property or to cause a nuisance or menace to the public and in accordance with the requirements of Owner and regulatory agencies. Final discharge location(s) of water removed from excavations shall be approved by the Engineer prior to work.

c. The control of groundwater shall be such that softening of the bottom of excavations, or formation of quick conditions or boils during excavation shall be prevented. Dewatering systems shall be designed and operated so as to prevent removal of the natural soils.

d. During excavating, construction of structures, installing pipelines and sewers, placing of structure and trench backfill and the placing and setting of concrete, excavations shall be kept free of water except as specified. The Contractor shall control surface runoff so as to prevent entry or collection of water in excavations. The static water level shall be drawn down a minimum of 1 foot below the bottom of the excavation so as to maintain the undisturbed state of the foundation soils and allow the placement of any fill or backfill to the required density. Dewatering systems shall be installed and operated so that the groundwater level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property.

e. The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soils, prevent disturbance of compacted backfill and prevent floatation or movement of structures, pipelines or sewers.

f. Trench water shall not be allowed to enter the pipe at any time.

g. The Contractor shall make provisions to take care of all surplus water, mud, slickings, and runoff pumped from excavations or resulting from sluicing or other operations and shall be responsible for any damage of whatever nature resulting from its failure to provide for the adequate control of runoff.

END OF SECTION 02203

SECTION 02222

EXCAVATING, BACKFILLING, AND COMPACTING FOR UTILITIES

1. GENERAL

a. The Work specified in this section shall consist of trenching, backfilling and compacting for the installation of water mains and appurtenances.

b. All excavation shall be unclassified.

c. Unsuitable or excess excavated material shall be hauled to a disposal site obtained by the Contractor. The Contractor's operations shall conform to all local, State (where applicable), Tribal and Federal regulations regarding disposal of material.

d. Native material may be suitable for use as backfill in areas not under asphalt or concrete pavement if it meets the requirements for the specified materials, is approved for use by the Owner or Owner's representative and is not made unsuitable by the Contractor's operations.

e. The Contractor shall exercise sound engineering and construction practices in its trenching, backfilling and compacting operations so that no damage will occur to any foundation, structure, pole, pipeline, utility or other facility. If, as a result of the Contractor's operations, there is damage to or the potential for damage to any foundation, structure, pole, pipeline, utility or other facility, the Contractor shall immediately take remedial action at no additional cost to the Owner. No act, representation, or instruction of the Owner shall, in any way, relieve the Contractor from liability for damages or costs that result from its operations. All properties and improvements shall be in as good condition as existed prior to the Work.

f. Prior to beginning trench excavation for pipe installation, the Contractor shall excavate and expose the existing pipes at the locations where the new pipe being installed will connect. After the existing pipes are exposed, the elevation of the pipes shall be determined so that excavation grade and horizontal alignment can be established between all points of connections to the existing water lines. The connection detail between the new and existing water lines shall be verified. The Engineer shall be notified upon any discrepancies in potholed elevations versus the elevations shown on the Plans.

g. The Contractor shall pothole utility crossings to determine if the water main needs to be installed below/above the utility at a different depth than shown. The water main shall have a smooth transition either side of the crossing; no vertical bends shall be used to cross an existing utility.

h. The Contractor shall retain and pay for the services of an independent testing laboratory for testing, analysis and examination of backfill and bedding materials to be used to establish the materials gradation and to establish the moisture-density relationship curves in accordance with ASTM D-1557. Costs associated with field density tests to Owner and road agency requirements shall be the Contractor's responsibility.

2. MATERIALS

A. General Trench Backfill and Pipe Bedding

(1) Pipe bedding is material placed in the trench with pay limits defined as 4 inches below the bottom of the pipe to 6 inches above the top of the pipe and trench width indicated on the plans. Backfill is material placed in the excavation above the pipe bedding with the pay limits defined as remainder of trench backfill from top of bedding to bottom of crushed rock under asphalt, with trench width indicated on the plans. All material shall be clean, free of roots, brush, sticks, wood, metal, debris, junk, broken concrete, brick, pavement, lumps of clay and frozen material. The maximum size of stone shall be the size as specified for each class of material. Unless otherwise specified, all material passing the No. 200 sieve shall be non-plastic.

(2) All material shall be of such moisture content, size and gradation that the required compaction can be readily attained. Material containing moisture in excess of the moisture content required for the specified density as determined by laboratory compaction tests shall not be used.

B. Trench Backfill Material

(1) Crushed Rock

Crushed rock shall be used for pipe bedding and for trench backfill as shown in the Plans or as directed by the Owner and shall conform to Crushed Surfacing Top Course in accordance with WSDOT Standard Specifications Section 9-03.9(3).

Crushed rock of the various classes shall meet the following requirements for grading and quality when placed.

Sieve Size	% Passing Top Course	% Passing Base Course
1-1/4”		99-100
1”		80-100
¾”	99-100	
5/8”		50 - 80
½”	80 - 100	
U.S. No 4	46 - 66	25 - 45
U.S. No. 40	8 – 24	3 - 18
U.S. No. 200	10.0 max.	7.5 max.
% Fracture	75 min.	75 min.
Sand Equiv.	40 min.	40 min.

Asphalt or Concrete Pavement Areas:

Crushed rock shall be used for trench backfill from bottom of asphalt or concrete surface to a depth below surface as shown on the Plans.

Gravel Surfaced Areas:

Crushed rock shall be used as a topping course for the gravel surface as shown in the Plans.

(2) Imported Gravel Borrow

Imported gravel borrow shall be used for trench backfill as shown in the Plans or as directed by the Owner and shall conform to Gravel Borrow in accordance with WSDOT Standard Specifications Section 9-03.14(1).

Asphalt or Concrete Pavement Areas:

Imported gravel borrow shall always be used as trench backfill below the crushed rock under pavement, unless the native material is acceptable to the Owner or the Owner’s representative.

Gravel Surfaced Areas:

Imported gravel borrow shall be used for trench backfill when the native excavated material is judged unsuitable by the Owner.

(3) Native Excavated Material

Native material excavated from the trench may be used for trench backfill only in locations not under asphalt or concrete pavement as shown in the Plans or as directed by the Owner or Owner’s representative if the material is judged suitable by the Owner or

Owner's representative. Maximum size of stone shall not exceed 6". Native material removed from the trench to be reused in areas not under pavement if it is kept dry; wet native material will not be allowed back in the trench.

Asphalt or Concrete Pavement Areas:

Native material may not be used for trench backfill.

Gravel Surfaced Areas:

Native material may be used for trench backfill if the material is judged suitable by the Owner.

C. Pipe Bedding Material

(1) Crushed Rock

Crushed rock shall be used for pipe bedding as shown in the Plans or as directed by the Owner and shall conform to Crushed Surfacing Top Course in accordance with WSDOT Standard Specifications Section 9-03.9(3).

3. EXECUTION

A. Trenching

(1) The Contractor shall perform all excavation of every description and of whatever materials encountered to the depths, lines and grades as shown on the Plans or specified. The Contractor may use any method of excavation which will not damage or endanger adjacent structures or property or disturb the natural or fill soils at, below and adjacent to the excavation unless otherwise shown or specified.

(2) Potholing for existing utilities shall be made at critical locations prior to construction.

i. The location of the existing water mains may vary from location shown on the plans. Asbestos cement pipe and galvanized iron pipe, if present as noted on the plans, cannot be located except from valve placement. When location of main is in question and cannot be determined from surface features, such as valves and hydrants, Contractor shall pothole to locate the existing main at critical locations.

ii. Existing water services to be crossed by the new main shall also be potholed by the Contractor. Existing water service lines shall be assumed to be un-locatable from a lack of trace wire. Owner staff will mark the service only to alert the

Contractor of its presence. The Contractor shall exercise extreme caution when potholing services. Services broken or damaged shall be repaired immediately.

iii. Potholing may also be required to locate other utilities such as gas, electrical, telephone, fiber optic and cable television if location is critical to the water main alignment.

iv. Each pothole shall be restored with cold mix asphalt to allow for safe passage by vehicles and pedestrians immediately following potholing operation.

v. Potholing shall be considered incidental to the other bid items and no additional payment will be made.

(3) Where, in the opinion of the Owner's inspector, the undisturbed condition of the natural soils below the excavation grades as shown on the Plans or specified is inadequate for the support of the pipeline, the Contractor shall overexcavate to adequate supporting soils and refill the excavated space to the proper elevation in accordance with the procedure specified for foundation stabilization. The excavating of unsuitable material and furnishing and placement of foundation backfill in excess of the quantities shown will be paid for by Change Order, or other means as specified in these Contract Documents.

(4) Should the excavation be carried below the lines and grades as shown on the Plans or specified because of the Contractor's operations, the Contractor shall refill such excavated space to the proper elevation with foundation rock or pipe bedding with no additional cost to the Owner. Should the natural or fill foundation soils be disturbed or loosened because of the Contractor's operations, they shall be recompacted or removed and the space refilled as directed at no additional cost to the Owner.

(5) For each complete pipe laying operation, the maximum distance from completed subsequent backfill to the most advanced point of excavation shall not be greater than 100 feet in unimproved areas and 3 pipe lengths in improved areas. The trench at the end of the day shall not be excavated to grade more than 5 feet in advance of the last pipe laid nor left unbackfilled to the original surface for more than the length of the last pipe laid, except that in travelled rights-of-way, no trench shall be left unbackfilled.

(6) The maximum and minimum for trench widths shall be as shown on the Plans. The maximum trench width, as measured at the top of the pipe, shall be inclusive of all sheeting, lagging and bracing. The

banks of the trenches where required to control trench width and protect adjacent structures shall be sheeted and braced at no additional cost to the Owner. At structures, the maximum trench width shall be increased to provide a 1-1/2 foot clear distance around the outside of any structure. Wherever the maximum allowable trench width is exceeded for any reason, the Contractor shall provide improved bedding and/or extra strength pipe as directed by the Owner at no additional cost to the Owner.

(7) At locations shown on the Plans or as specified, the top 1 foot of topsoils within the limits of the excavation shall be stripped for the purpose of replacing it in the same area. The topsoil shall be removed in a uniform depth and be stored in such a manner that it will not become mixed with the underlying soils.

(8) During excavation procedures, material suitable for backfill shall be stockpiled. Materials unsuitable for backfill or in excess of requirements shall be disposed of as specified. Suitable excavated material stockpiled for use as backfill shall be protected from contamination or damage by weather.

(9) Prior to machine excavating near trees and shrubbery designated to remain, the Contractor shall make exploratory excavations which will expose the tree roots two (2) inches or larger in diameter. When excavating near trees, the top edge of the excavation shall not be closer than 8 feet horizontally from the tree unless shown otherwise on the Plans. Where roots may be damaged by construction equipment, the Contractor shall hand dig or tunnel to install the pipeline as noted on the Plans. Tree roots two (2) inches or larger in diameter shall not be cut. The Contractor shall install sheeting and shoring as required to maintain the banks of the excavation around the roots of trees.

(10) In non-travelled areas, the backfilling over the trench shall be slightly crowned. The remaining area shall be finished off to uniform contour to properly drain, and the entire surface graded to result in a neat appearing surface. In the event of natural cross drainage, a depressed section shall be formed through the crowned backfill to allow continued drainage.

(11) Areas in public right-of-way but not in traveled roadway shall be backfilled and finished as stated above. In case of the trench being in and along a natural drain ditch, the ditch shall be reformed to the original size and slope to allow proper drainage.

(12) Immediately after backfilling, the Contractor shall remove all excess dirt from the roadways by brushing, washing, graders or other

means. All damage to existing ditches, culverts, driveways, etc., shall be repaired at this time. Damage to and repair of existing roadways shall be completed at a time directed by the Owner.

B. Backfilling and Bedding

(1) General

a. The placement of bedding, initial backfill and subsequent backfill shall be performed so that the pipe or its protective coating shall not be damaged.

b. All trenches in which settlement occurs after repaving shall be reopened to the depths necessary for correction of the deficient backfill and rebackfilled and compacted and the surface restored.

(2) Foundation Stabilization

At the locations shown on the Plans, specified, or as directed by the Owner, where the undisturbed condition of the natural soils below the excavation grades shown or specified is inadequate for the support of the planned pipeline, the trench bottom shall be brought to grade for bedding and pipe installation after stabilization. Stabilization shall be accomplished by the following method to provide a foundation capable of supporting the pipe in its proper location.

Crushed Surfacing Base Course in accordance with Standard Specification Section 9-03.9(3) shall be worked into the in-place soft subsoils to the extent necessary to accomplish the required stabilization. The completed trench bottom shall not contain a top layer of more than 2 inches thick containing aggregate unmixed with native material.

(3) Bedding

a. Bedding shall consist of leveling the bottom of the trench or the top of foundation stabilization material and furnishing and placing bedding material under the pipe and along the sides to the dimensions as shown on the Plans or specified.

b. Bedding material shall be of the type shown on the Plans or as specified. Bedding shall be placed in at least 2 lifts; the first lift shall be placed before the pipe is laid and shall be spread smoothly so that the pipe is uniformly supported along the barrel. The depth shall be as shown on the Plans or as specified. No blocking of any kind shall be used to

adjust the pipe to grade. Bell holes shall be dug as required to assure uniform support along the pipe barrel. After the pipe has been properly laid, subsequent lifts of not more than 6 inches in thickness shall be installed up to the pipe spring line. Lifts shall be brought up together on both sides of the pipe and shall be carefully worked under the pipe haunches by means of slicing with a shovel, vibration, or other procedures approved by the Owner.

c. After the pipe has been properly laid and bedded, initial backfill consisting of additional bedding material shall be placed and compacted around the pipe and to 6" above the top of the pipe. The class of bedding shall be as shown on the Plans or specified. No further backfilling will be permitted until the initial backfill has been approved.

(4) Subsequent Backfill

a. After the bedding and initial backfill has been placed and approved, backfill material shall be placed and compacted. The class of backfill shall be as shown on the Plans or specified. Subsequent backfill in travelled ways under asphalt and concrete areas shall be in successive layers not exceeding 8 inches in loose thickness except in the top 2 feet the thickness shall not exceed 4 inches and each layer shall be compacted to the density specified. In non-travelled ways, the Contractor may backfill and compact in layers in thicknesses of the Contractor's selection so long as the desired density is obtained.

C. Compacting

(1) All compaction shall be by mechanical equipment. Water settling shall not be considered as an alternative to mechanical compaction. Compaction within 2 feet of existing or new structures shall be by hand held equipment.

(2) Compaction for bedding, initial backfill and subsequent backfill shall be to the percent of the maximum density as determined by ASTM D 1557, as listed below:

Bedding	95%
Initial Backfill	95%
Subsequent Backfill	
In travelled ways	95%
In non-travelled ways	95%

(3) Contractor shall contract with an approved geotechnical testing company for compaction tests required by the Owner. Tests shall be taken at 100-foot intervals at random depths as required by the Owner. If compaction not met, Contractor shall remove the backfill material, recompact and retest at no additional cost to the Owner.

(4) Placing of backfill shall be delayed at locations designated by the Owner for the procurement of samples of compacted backfill for testing. Provided further, that if the test indicates insufficient density of the compacted backfill about the pipe, the Contractor will be required to remove the backfill above the compacted backfill, continue compacting the backfill until the proper density is obtained, and replace the backfill above the compacted backfill, all at the Contractor's expense.

END OF SECTION 02222

SECTION 02502

FINISHING AND CLEANUP

1. GENERAL

a. The Work specified in this Section shall consist of the finishing and cleanup of all areas disturbed by the Contractor's operations.

2. MATERIALS

NOT USED

3. CONSTRUCTION

a. After all other work embraced in the Contract is completed, the entire work area including roadways, planting area, sidewalk areas, shoulder, driveways, alley and side street approaches, slopes, ditches, utility trenches and construction areas shall be neatly finished to the lines, grades and cross-sections as shown on the Plans or specified.

b. Slopes, sidewalk areas, planting areas, and roadway shall be smoothed and finished to the required cross-section and grade by means of a grading machine insofar as it is possible to do so without damaging existing improvements, trees and shrubs. Machine dressing shall be supplemented by hand work to meet requirements outlined herein, to the satisfaction of the Owner.

c. Upon completion of the cleaning and dressing, the Project shall appear uniform in all respects. All graded areas shall be true to line and grade as shown on the typical sections and as required by the Owner. Where the existing planting is below sidewalk and curb, the area shall be filled and dressed out to the walk regardless of limits shown on the Plans. Wherever fill material is required in the planting area, it shall be left high enough to allow for final settlement; nevertheless, the raised surface shall present a uniform appearance.

d. All large rocks shall be removed from the entire construction area and shall be disposed of as required for other waste material. In no instance shall the rock be thrown onto private property. Overhang on slopes shall be removed and slopes dressed neatly so as to present a uniform well sloped surface.

e. All windrows of earth at the outer lateral limits of the Project shall be removed entirely. Trash of all kinds resulting from clearing and grubbing or grading operations shall be removed and disposed of at a site obtained by the Contractor. Where machine operations have broken down brush and trees beyond the lateral limits of the Project, the Contractor shall remove and dispose of same at its own expense.

f. Drainage facilities such as inlets, catch basins, culverts, and open ditches shall be cleaned of all debris which is the result of the Contractor's operations.

g. The Contractor shall remove and dispose of all construction stakes.

h. All pavements and oil mat surfaces, whether new or old, shall be cleaned. Existing improvements such as Portland cement concrete curbs, curb and gutters, walls, sidewalks and other facilities which have been sprayed by the asphalt cement shall be cleaned to the satisfaction of the Owner. Casting for manholes, monuments, water gates, lamp poles, vaults, and other similar installations which have been sprayed with the asphalt material shall be cleaned to the satisfaction of the Owner.

i. The Contractor shall flush all streets at the conclusion of the work. Flusher shall be of a pressure type and approved by the Owner. Sidewalks shall be hand broomed.

j. Projects where all or a portion of the construction is in undeveloped area, the entire area which has been disturbed by the construction shall be shaped so that upon completion, the area will present a uniform appearance, blending into the contour of the adjacent properties. All other requirements outlined previously shall be met, except that it will not be necessary to pick up rocks unless so specified.

k. Where by permission of the property owner, spoil is dumped on private property, the Contractor will not be required to perform any work beyond that described in the easement obtained by the Owner for use of the land.

l. Contractor shall be responsible for disposing of old fittings legally if not left buried in-place.

m. All road crossings shall be patched and paved within one week of successful pressure test and bacteriological result. Inspector shall make final decision on any weather delays. Failure to perform patch and pavement work within the limited time shall allow the Owner to contract with a separate Contractor and back- charge the selected Contractor.

n. Existing hydrants shall be the Contractor’s responsibility until delivered to the Owner’s Shop or storage yard. The Contractor shall protect the existing hydrant during removal, storage and transportation. Existing hydrants if not delivered shall be valued at $300.

o. Contractor shall be responsible to remove and dispose of old meter boxes, meter setters, service piping and associated valves.

END OF SECTION 02502

SECTION 02610

PIPE AND FITTINGS

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222
B. Water Lines: Section 02660

1.2 QUALITY ASSURANCE

A. Testing by Manufacturer:

1. Manufacturer shall test all materials as required by these Specifications and the standards referenced.

2. Manufacturer shall submit to the Engineer two (2) copies of all test results which shall include a certification that materials to be delivered are represented by the samples tested and that such delivered materials meet or exceed the specification requirements.

3. No material shall be delivered until test results and certifications are in the hands of the Engineer.

4. Engineer shall have free access to all testing and records pertaining to material to be delivered to the job site.

5. The Engineer may elect to be present at any or all material testing operations.

B. Joint tests are intended for qualification of joint design and shall be considered to be a qualification test to establish the adequacy of the manufacturer's joint design. The manufacturer shall certify that tests have been performed within the last year with pipes equivalent in size and design and that they have passed the test enumerated in the specifications. Tests may be waived for pipes of different strength class if joint design is the same as the pipe tested.

C. The Manufacturer shall have manufacturing and quality assurance facilities capable of producing and assuring the quality of the pipe and fittings required by these Specifications. The Manufacturer's production facilities shall be open for inspection by the Owner or his Authorized Representative.

2. PRODUCT

2.1 DUCTILE IRON FITTINGS

A. Use for ductile iron pipe. All mechanical joint fittings shall be restrained with Megalugs or Field Lok gaskets suitable for use with PVC pipe.

B. All fittings shall be short-bodied, compact ductile iron with a minimum rating of 250 psi working pressure conforming to AWWA C153 (ANSI A21.53), except flanged fittings shall conform to AWWA C110 (ANSI A21.10) and sleeves which shall be long pattern.

C. Joint shall conform to AWWA C111 (ANSI A21.11).

D. Dimensions of fittings and design of bell may be modified to conform with the pipe being used.

E. Cement mortar lining conforming to AWWA C104 (ANSI A21.4).

F. Gaskets for flat faced or raised faced flanges shall be 1/8-inch thick neoprene having a durometer of 60 plus or minus 5.

G. Gaskets for flanges having a recess machined to receive an "O" ring shall be neoprene and shall have the dimensions and durometer as recommended for the particular service application by the flange manufacturer.

H. Provide type, material and identification mark for bolts and nuts.

I. All pipe or pipe spools with at least one end flanged shall be Class 53 and shall conform to ANSI/AWWA C115/A21.15.

J. Restrained joints shall be made up with push-on joint pipe and fittings. The push-on joint restraint device shall be ductile iron with a 350 psi working pressure and shall be TR Flex, Griffin Pipe Products Snap-Lok, Field-Lok gaskets or Megalugs.

2.2 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

A. Polyvinyl Chloride (PVC) Pipe (4 inches and over): Where water main is specifically designated PVC on the Plans, PVC pipe for water mains shall meet the requirements of ANSI/AWWA C900 or ANSI/AWWA C905. PVC pipe shall have the same outside dimensions as ductile iron pipe. PVC pipe for distribution pipelines shall be a minimum of SDR 14. Pipe shall be listed by Underwriter's Laboratories, Inc. PVC pipe shall be considered flexible conduit. Joints shall meet the requirement of ASTM D3139 using a restrained rubber gasket conforming to ASTM F477. External PVC bell joint harness (Romac 611 or approved equal) may be used as PVC joint restraint. Solvent welded pipe points are not permitted. Tracer wire shall be UL listed, type UF, 12-gauge copper taped to the top of the pipe to prevent movement during backfilling. The wire shall be laid loosely enough to prevent stretching and damage. The wire shall be wrapped to a convenient accessible location within each valve box or valve chamber.

B. Pipe Fittings for PVC Water Mains: Pipe fittings for PVC water mains shall be ductile iron in accordance with ANSI Standard A21.10 (AWWA C-110), ANSI Standard A21.11 (AWWA C-111)

and ANSI Standard A21.53 (AWWA C-153). All fittings joints shall be restrained.

2.3 FLEXIBLE COUPLINGS

A. Use for connection between plain end pipe of same or different material.

B. Sleeve: Gray iron ASTM A126 Class B or ductile iron ASTM A536. Ends have a smooth inside taper for uniform gasket seating.

C. Followers: Ductile iron ASTM A536.

D. Gaskets: Grade 30 specially compounded rubber of all new materials.

E. Bolts and nuts: High strength low alloy steel with heavy, semi-finished hexagon nuts to AWWA C111 (ANSI-A21.11).

F. Flexible couplings shall be Romac, or equal.

2.4 SOLID SLEEVE COUPLINGS

A. Solid sleeve couplings shall be long pattern sleeves constructed of ductile iron with a minimum pressure rating of 350 psi working pressure. Sleeve couplings shall be restrained with Megalugs.

2.5 WATER SERVICE PIPE

A. Polyethylene Pipe:

(i) Polyethylene Pipe to be used for water service lines 2 inches in size and smaller shall conform to the requirements of AWWA C901 Class 200 psi IPS manufactured with PE 3408 material.

(ii) Bear the seal of the National Sanitation Foundation for potable water pipe.

(iii) Joints shall be made in accordance with the manufacturer's recommendations. Solvent welded pipe joints will not be permitted.

2.6 WATER SERVICE MATERIALS

A. Saddles:

(i) Shall be ductile iron, bronze, or stainless steel, double straps or band type with standard tapping to match service requirements.

B. Corporation Stops:

(i) Conform to AWWA C800.

(ii) Corporation stops for use with saddles shall be or bronze alloy with inlet I.P. standard thread and outlet thread compatible with connection piping with no special adapters.

(iii) Corporation stops for direct tapping shall be bronze alloy with AWWA tapered thread inlet and outlet thread compatible with connecting pipe without special adapters.

C. Meter Stops:

(i) Meter stops shall be angle pattern with lock wings.

2.7 CONCRETE FOR THRUST BLOCKS

A. ASTM C94 and mix design approved by Engineer.

B. Compression strength and water cement ratio: The minimum compressive strength and cement content of concrete shall be not less than that shown in the tabulation that follows.

Class of Concrete Min. 28-day Compr. Strength (Psi)	Type of Work	Max. Size Aggregate (Inches)	Min. Cement Pounds Per Cubic Yd.	Max. W/C Ratio
3,000	Thrust blocks and all other uses.	1½	517	0.50

Fly ash may be used at the rate of 100 pounds per cubic yard.

C. Cement ASTM C150 shall be Type I or II.

D. Aggregates:
1. Conform to ASTM C33.
2. Maximum wear 50% at 500 revolutions, AASHTO T96.

E. Water shall be clear, free from injurious amounts of oil, acid, salt, alkali, organic matter, or other deleterious substances.

F. Fly Ash shall be in accordance with ASTM C618-84 and ASTM C311-77.

G. Admixtures:
1. Use only those specified in approved mix design.
2. Air entrain all concrete unless elsewhere excepted, with agent conforming to ASTM C260. Fresh water concrete air content between 3% and 5% by volume.

2.8 DETECTABLE LOCATOR TAPE

A. Detectable locator tape is required over all water line installed.

B. The tape shall consist of a minimum 4.0 mil thickness, inert polyethylene plastic which is impervious to all known alkalis, acids, chemical reagents and solvents likely to be encountered in the soil, with a minimum 1/3-mil metallic foil. The tape shall be at least three inches (3") in width and shall be solid blue with identifying print in black letters. The tape shall have printed thereon the following or similar as commercially available:

"CAUTION - BURIED WATERLINE BELOW"

The identifying lettering shall be minimum 1" high and repeated continuously the full length of the tap. In no instance shall the spacing of the individual segment of the identifying message be greater than eighteen inches (18").

C. Detectable locator tape shall be installed 12 inches above the pipe it identifies. The backfill shall be sufficiently leveled so that the tape will be installed on a flat surface. The tape shall be centered in the trench and laid flat with printed side up. Caution shall be exercised to avoid displacement of tape and to ensure its integrity. The remainder of the trench is then backfilled in accordance with applicable specifications.

3. EXECUTION

3.1 INSTALLATION

A. Install pipe in accordance with specification section for pipeline being installed and the Standard Details.

B. Install thrust blocks in accordance with the Standard Details.

*** * * END OF SECTION * * ***

SECTION 02640

VALVES

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222
B. Pipe and Fittings: Section 02610

1.2 QUALITY ASSURANCE

A. Testing by Manufacturer:

1. Manufacturer shall test all materials as required by these Specifications and the standards referenced.

2. Manufacturer shall submit to the Engineer two (2) copies of all test results which shall include a certification that materials to be delivered are represented by the samples tested and that such delivered materials meet or exceed the specification requirements.

3. No materials shall be delivered until test results and certifications are in the hands of the Engineer.

4. Engineer shall have free access to all testing and records pertaining to materials to be delivered to the job site.

5. The Engineer may elect to be present at any or all materials testing operations.

1.3 VALVE OPERATION

A. All valves shall be checked by the Owner for operation prior to installation. Valves shall operate freely and easily.

B. Valves will be rejected if operation is not acceptable to the Owner.

2. PRODUCTS

2.1 GATE VALVES - 4” THROUGH 12”

A. Conform to AWWA C515.

B. Ductile iron body, bronze stem, resilient wedge. Resilient wedge assembly shall be fully encapsulated by the approved resilient material.

C. O-ring stuffing box.

D. Open counter-clockwise unless otherwise specified.

E. Non-rising stem type.

F. Equipped with 2-inch standard operating nut.

G. Mechanical joint or flanged ends as shown on the plans.

H. All flange faces shall be machined. Flanges shall be drilled to straddle vertical centerline.

I. Resilient seated gate valves shall be U.S. Pipe Metroseal, Waterous, American-Darling, ITT Kennedy, Clow, M&H, Mueller or American Flow Control, Series 2500.

2.2 GATE VALVES - SMALLER THAN 4”

A. Gate valves shall be equal to Red-White Bronze Gate Valve Fig. 280, non-rising stem and screwed ends.

2.3 STEM EXTENSION

A. Provide 1-inch solid bar stem extension with standard operating nut and self-centering rockplate support for all valves with operating nut more than 30-inches below grade to raise operating nut to between 18- and 24-inches of the ground surface in accordance with the details.

B. Valve nut extensions must operate freely and easily or will be rejected.

2.4 VALVE BOXES

A. Provide for all buried valves in accordance with the detail.

B. Valve boxes and tops shall be cast iron 2-piece slip joint type 5” minimum inside diameter. Lids shall be long skirted.

C. Lengths suitable for the particular project or as specified. Base sections shall not be stacked. Five-inch soil pipe shall be used for deeper installations.

D. Top section shall be 18 inches minimum length with a valve cover marked "Water" cast on it.

F. Shall be Rich Style 940 or equal.

G. Approved locking valve box lids (Ampro Style 940) with appropriate valve box tops shall be used in high traffic areas.

H. Install minimum 1-inch thick Ethafoam pad over valve bonnet prior to placement of valve box.

2.5 VALVE MARKER POST

A. Shall have a 4-inch minimum square section and a minimum length of 42 inches, with beveled edges.

B. Contain at least one No. 3 bar reinforcing steel.

C. Paint exposed portion of the marker posts with two (2) coats of Kelly Moore safety yellow Luxlite Q.D. Alkyd Gloss Enamel #6100-563.

D. Stencil the size and type of the valve and the distance in feet to the valve on the face of the post, using stick-on die cut letters two (2) inches high.

E. Shall be in accordance with the standard detail and applicable provisions of Section 02645.

3. EXECUTION

3.1 VALVE INSTALLATION

A. Valves shall be accurately set at places designated on the drawings.

B. Inspect each valve for defects and ease of operation. Valves that are difficult to operate will be rejected in accordance with paragraph 1.3 above.

C. Adjust stuffing boxes to ensure watertightness without binding the stem.

D. Set valve and valve box plumb, with the valve stem vertical.

E. Set lower casting of valve box so that it is supported by an Ethafoam collar not less than 1-inch in thickness.

F. Tamp backfill around valve box to a minimum distance of 3 feet on all sides or to face of trench.

G. Set valve box cover flush with surface. Provide collar when required by Standard Detail.

H. All valve box lids, including fire hydrant auxiliary valves, shall be painted two coats of Safety Yellow paint in accordance with Section 02645.

3.2 VALVE MARKER POST

A. Where required, set valve marker post at edge of right of way opposite the valve.

B. Leave 18 inches of post exposed above grade.

3.3 BLOCKING

A. Provide blocking for valve not connected to fitting with bolted connection.

3.4 TESTING

A. Test valves along with pipeline in which they are installed. Valves shall withstand required test pressure without backpressure.

*** * * END OF SECTION * * ***

SECTION 02645

HYDRANTS

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222
B. Pipe and Fittings: Section 02610
C. Valves: Section 02640
D. Water Lines: Section 02660

1.2 QUALITY ASSURANCE

A. Testing by Manufacturer:

1. Manufacturer shall test all materials as required by these Specifications and the standards referenced.
2. Manufacturer shall submit to the Engineer two (2) copies of all test results which shall include a certification that materials to be delivered are represented by the samples tested and that such delivered materials meet or exceed the specifications requirements.
3. No materials shall be delivered until test results and certifications are in the hands of the Engineer.
4. Engineer shall have free access to all testing and records pertaining to materials to be delivered to the job site.
5. The Engineer may elect to be present at any or all materials testing operations.

2. PRODUCTS

2.1 FIRE HYDRANTS

A. Fire hydrants shall be a breakaway type and shall conform to AWWA C502. The fire hydrants shall be furnished with a 6-inch mechanical joint inlet connection, 1¼-inch pentagon operating nut opening to the left, positive acting drain valve, and shall include extensions, if necessary, to provide minimum operating clearances shown on the standard plans.

B. Hydrants installed in this project shall have a minimum main valve opening of 5¼-inch, two 2½-inch hose nozzles and one 4-inch pumper nozzle with Seattle-style threads. **Do not install hydrants with port sizes different from those specified here.**

C. Fire Hydrants shall be the latest model of the following manufacturers: Mueller Centurion or M&H. No substitutions will be accepted.

D. All nozzles shall be fitted with cast iron threaded caps with operating nuts of the same design and proportions as the hydrant stem nuts. Caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable neoprene gaskets for positive water tightness under test pressures. Chains on the caps shall be provided.

E. Storz adaptor required.

2.2 PAINT FOR FIRE HYDRANTS, VALVE LIDS AND MARKER POSTS

The following paints shall be used for the fire hydrants, valve lids, and marker posts.

Item	Paint	Color
Hydrant and Valve Lids	Kelly Moore Luxlite Q.D. Alkyd Gloss Enamel	Safety Yellow #6100-563
Valve Marker and Hydrant Guard Posts	Kelly Moore Luxlite Q.D. Alkyd Gloss Enamel	Safety Yellow #6100-563
2” Notations for Hydrants & Valves & all Marker Posts	2” Die-Cut Adhesive Back Numbers & Letters Item No. DKVL-Z EMED Co., P.O. Box 369, Buffalo, NY 14240-0369 (800) 442-3633	Local Supplier: Sign Up Sign Co. 19211 Bothell Way Bothell, WA 425-488-9247

2.3 GUARD POST

A. Precast concrete 9 inches in diameter by six feet long constructed with concrete having minimum strength of 3500 psi.

B. Reinforcing shall consist of minimum of five No. 3 deformed steel bars.

3. EXECUTION

3.1 SETTING HYDRANTS

A. Hydrants shall be inspected in the field upon arrival to ensure proper working order.

B. Hydrants shall be installed in accordance with the standard detail.

C. Hydrants shall not be installed within 3 feet of a traveled roadway.

D. A minimum 3-foot radius unobstructed working area shall be provided around all hydrants. The area adjacent to the hydrant shall be cut or filled to grade to provide a clear and level pad. Install concrete pad per the fire hydrant detail.

E. Centerline of pumper port shall be 18-inches minimum and 24-inches maximum above finished grade.

F. Hydrants shall be set on concrete blocks.

G. Hydrant drain shall waste into a pit of washed rock situated at the base of the hydrant as shown in the detail.

H. Hydrant laterals under 50 feet long shall consist of a section of 6-inch PVC pipe from the main to the hydrant and shall include an auxiliary gate valve set vertically and placed in the line as indicated in the detail.

I. Hydrant branches over 50 feet long shall consist of a section of 8-inch ductile iron pipe and include required reducer to connect to hydrant.

J. Hydrants shall be restrained as shown in the detail. Megalugs or locking gaskets may also be used for restraint.

K. The exposed portion of the hydrant shall be painted with two field coats of paint and marked in accordance with the standard details and this specification. Chains on the caps shall be removed for painting but replaced after paint has dried.

L. Any new or existing hydrant not in service shall be identified by covering with a burlap or plastic bag.

M. Install culverts at locations shown on the drawings. Bevel culvert ends when installed in an existing ditch.

N. Install hydrant lateral under existing main or storm drain without using bends. Contractor required to determine if new main needs to be installed deeper in order to accomplish.

3.2 HYDRANT BARREL EXTENSIONS

A. Provide hydrant barrel extensions as needed for proper vertical clearances as noted in the fire hydrant detail. Fire hydrant barrel extensions shall be installed with “break-away” flange placed up.

B. Barrel extensions shall operate freely and easily.

3.3 TESTING

A. Test hydrants along with pipeline on which they are installed.

*** * * END OF SECTION * * ***

SECTION 02660

WATER LINES

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222
B. Pipe and Fittings: Section 02610
C. Valves: Section 02640
D. Existing Utilities/Facilities-Underground and Overhead: Section 02760

1.2 SUBMITTALS

A. The Contractor shall review the construction connection sequencing provided on the plans and submit any changes for review. Water service in either the existing water main or the new water main must remain in service at all times during connections. Ultimately both mains will be in service.
B. Contractor to provide a list of chlorination and dechlorination chemicals to be used.

1.3 QUALITY ASSURANCE

A. Testing Before Acceptance:

1. The Engineer may require that the first section of pipe, not less than 1,000 feet in length, installed by each of the Contractor's crews, be tested in order to qualify the crew and/or the material.
2. Pipe laying shall not be continued more than an additional 1,000 feet until the first section has been tested successfully.
3. Contractor shall notify Engineer 24 hours prior to a test to allow for a witness to be onsite.

B. Biological Testing:

1. Biological tests required for disinfection of domestic water systems shall be by a laboratory approved by the Health Department or other authority having jurisdiction. The Contractor is responsible for taking samples and providing the results to the Owner.
2. At their discretion, the Owner will also take water samples and have them tested as assurance of the Contractor’s test results.

C. Final Acceptance:

1. Prior to final inspection all pipelines shall be flushed and cleaned of all debris, hydrostatically tested, and disinfected.
2. Any corrections required shall be made at the expense of the Contractor and the line retested.

2. PRODUCTS

2.1 BEDDING MATERIALS

A. Conform to Section 02222.

2.2 PIPE MATERIALS

A. As defined in Section 02610.

3. EXECUTION

3.1 BEDDING FOR PVC PIPE

A. Bedding for PVC pipe shall be as specified in Section 02222.

B. Bedding shall be carefully placed under the pipe and to a depth of at least six (6) inches over the top of the pipe.

C. Shall be thoroughly rammed and tamped around the pipe with the proper tools, so as to provide firm and uniform support over the full length of all pipe, valves and fittings.

D. Care shall be taken to prevent any damage to the pipe or its protective coating.

3.2 PIPE LAYING

A. Pipe laying shall be done in accordance with the Specifications and instructions of the manufacturer of the kind of pipe used.

B. Tools designed especially for installing each particular type and kind of pipe shall be used.

C. Short Lengths and Field Cut Joints:

1. Short lengths of pipe supplied by the manufacturer shall be used to provide the proper spacing of valves, tees or special fittings.
2. Whenever it becomes necessary to cut a length of pipe, the cut shall be made by abrasive saw or by a special pipe cutter.
3. Pipe ends shall be square with the longitudinal axis of the pipe and shall be reamed and otherwise smoothed so that good connections can be made.
4. All operations for any connection shall be carefully done in accordance with the manufacturer's instructions.

D. Laying of Pipe on Curves:

1. Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflections at the joints or by the use of shorter lengths of pipe.

2. When pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment.
3. Where field conditions require deflection or curves not anticipated by the Plans, the Contractor shall use deflected joints, short lengths or special fittings as required. No additional payment will be made for laying pipe on curves as shown on the Plans or for field changes involving pipe deflected at the joints. When special fittings not shown on the Plans are required to meet field conditions, additional payment will be made for fittings.
4. Maximum deflections at pipe joints and laying radius for various pipe lengths shall be as recommended by the pipe manufacturer.

E. Contamination Prevention:

1. Pipe, fittings and valves shall be carefully cleaned of all dirt and foreign material as they are placed.
2. Open ends of pipe and fittings shall be plugged with a watertight plug as pipelaying progresses, whenever work is stopped and/or when water in the trench threatens to enter the pipe.
3. Groundwater shall be excluded from the pipe at all times.
4. Particular care shall be exercised to guard against the entrance of sewage into the water line trench during the course of construction. All sewer lines, house side sewers or other subsurface drains should be located prior to excavation. Adequate provision shall be made for the flow of sewers, drains, and other water courses during construction.
5. Pipe to be stored on the project prior to use shall be protected from damage or contamination. Stringing pipe along right-of-way shall be permitted only if approved by right-of-way permit. Pipe shall not be stored in roadside ditches and shall not be a danger or nuisance to drivers or neighbors.

F. Condition of Pipe and Fittings:

1. The interior of all pipe, fittings and other accessories stockpiled on the project shall be kept free of dirt and other foreign matter at all times.
2. Each pipe, fitting or other accessory shall be carefully inspected and thoroughly cleaned of any dirt or foreign matter that might be present on the inside.
3. Cleaning shall be accomplished prior to lowering the pipe or other accessories into the trench.
4. Care shall be taken to keep materials internally clean after the pipe is placed in the trench.

3.3 BLOCKING AND BRACING

A. Blocking and bracing of the pipe and fittings shall be placed so as to secure bearing on undisturbed earth.

B. Blocking and bracing size shall be determined by the Contractor and shall be of sufficient proportions and installed so as to withstand the required test pressure and operating conditions.

C. Concrete shall be placed in back of all fittings with unbalanced thrust. Pre-cast blocking shall not be used.

D. Blocking shall not be covered up without its having been seen by the Engineer.

E. Blocking shall be formed so that bolts, joints, gaskets, and flanges of adjacent joints are clear of the concrete and so that bolts and joints can be dismantled without removing the concrete.

F. At tees and crosses where future mains connect, a pre-cast concrete brick may be used between fittings and thrust block.

G. Unless otherwise called for in the Bid Form, the cost of furnishing and installing all blocking shall be included in the price bid per lineal foot of pipe.

H. While excavating behind existing fitting, Contractor shall preserve and protect existing thrust blocking, supplementing if necessary.

3.4 CONNECTION TO EXISTING WATER MAINS

A. Water service to customers must remain in service at all times. Existing water main cannot be temporarily shut down until the new main has been pressure and purity tested, flushed and connected to the existing system. Ultimately, both mains will be in service.

B. A State DOH or EPA approved backflow prevention assembly (double check valve assembly or better) shall be used when filling the new water main during disinfection and flushing. Devices approved by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research are acceptable(https://fccchr.usc.edu/list.html). The assembly and supply piping shall be removed or isolated during hydrostatic pressure testing of the new main. See plans for additional information.

C. Type of connections shall be as shown on the Drawings. All joints required for connection between the existing system and the newly installed main shall be restrained using mega-lugs or equal so that the shutdown and connection can be accomplished in the shortest possible time. In addition to the restrained joint connections, the Contractor shall also place deadmen, thrust blocks and other such restraints as necessary to insure the piping systems adjacent to the points of connection are securely held in place.

D. Existing valves may leak; provide blind flange, cap or plug if necessary. Have materials on hand to repair leaks.

E. Wet tap connections made without shutting off the existing line shall not be made unless otherwise approved by the Owner.

F. Connections to the existing water main shall not be made without first making the necessary arrangements with the Owner in advance. Seven working days advance notice is required.

G. Existing pipe, fittings and valves shown on the plans are approximate – in most locations, no record drawings are available. Contractor shall verify existing conditions prior to making connection to existing water main. Contractor shall verify if main needs to be installed deeper when crossing existing utilities.

H. Work shall not be started until all of the materials, equipment and labor necessary to properly complete the work are assembled on the site.

I. When work is once started on this connection, it shall proceed continuously without interruption and as rapidly as possible until completed.

J. If the connection to the existing system involves turning off the water, the Owner will be responsible for notifying the customers affected by the shut-off. Normal shut-off times are 9 a.m. to 3 p.m. Tuesday through Thursday and require 72-hour advance notice.

K. The Contractor may be required to perform the connection during times other than normal working hours. It shall be the Contractor's responsibility for prior coordination and scheduling with the Owner's field representative. A minimum of 72 hours (3 working days) notice is required. No connections will be allowed on Mondays or Fridays.

L. The Contractor shall not operate any valves on the existing system or on new mains that have been placed into service. Coordinate with the Owner staff for valve operation.

M. The types of connections are varied and suggested pipe arrangements have been shown on the Plans. For connection by any other method, the Contractor shall furnish a detailed sketch for approval not less than one week prior to the expected construction. Pipe joints and fittings shall be visually inspected under full static pressure by the Engineer prior to backfill.

N. Interior of pipe and fittings used in making connections shall be swabbed or sprayed with a 1% solution of hypochlorite before they are installed.

O. Exterior of main shall be cleaned and interior surface of tapping sleeve shall be dusted with calcium hypochlorite powder before tapping sleeve is installed.

P. Installation of tapping tee shall be tested with air or water at a minimum pressure of 100 psi before cutting into the existing line.

Q. Any replacement pipe used for cutting into existing mains shall be same material and strength as existing pipe except that ductile iron may be substituted for other materials.

3.5 SERVICE CONNECTIONS

A. Service connections to water mains except ductile iron Class 52 or stronger shall be made using saddles of the size and type suitable for use with the pipe being installed.

B. Ductile iron Class 52 or stronger may be direct tapped with a corporation stop.

C. The depth of trenching for service connection piping shall be such as to provide cover over the top of the pipe as shown on the service detail.

D. Particular care shall be exercised to assure that the main is not damaged by installation of the service line.

E. Service lines shall be cut using a tool or tools specifically designed to leave a smooth, even, and square end on the piping material to be cut. Cut ends shall be reamed to the full inside diameter of the pipe.

F. Where shown in the plans, existing water service connections shall be reconnected to the new water mains installed under this Contract using the materials specified. The location of water service connections shall be verified in the field by the Contractor.

G. Pipe materials used to extend or replace existing water service lines shall be in accordance with utility's standard details for new service.

H. Insulating couplings shall be used at any connection between galvanized steel or iron pipe and copper pipe.

I. Contractor shall arrange the work to minimize interruptions of water service to existing water customers.

J. Line shall be installed, tested and disinfected up to point of connection prior to interruption of service.

K. Customer shall be notified prior to shutting off service by the Contractor. Notification shall be given for water outages 24 hours in advance and again 30 minutes prior to shutoff. Time that water is shut off shall be held to a minimum.

L. Contractor shall be responsible for any leaks that develop from the work to reconnect the Customer's service, both before and after the meter. Contractor will be responsible for the cost of water lost should the backside connection develop a leak.

3.6 EXISTING SYSTEM MAINTENANCE

A. The Contractor shall become acquainted with all aspects of the existing system prior to starting construction on new mains. Pertinent information concerning existing system may be obtained from the Owner and from the Owner's records.

B. Materials, fittings, pumps, equipment and qualified personnel must be available on the project at all times during construction, so that in the event of damage to or disruption of the existing water system service there will be immediate repair and restoration by the Contractor. Any unnecessary delay in repairs or service restoration due to Contractor's failure to adhere to these requirements shall be reason to immediately suspend any further new main installation until repairs are completed to the Owner's satisfaction.

C. Existing water services shall be located by the Contractor prior to beginning work so that it may be properly protected and maintained in service during construction and during the changeover from the existing pipes to the pipe installed under this Contract.

D. Existing valves and fire hydrants shall remain accessible during construction until abandoned.

3.7 HYDROSTATIC PRESSURE TEST

A. Water mains, service connections and appurtenances shall be tested in sections of convenient length under a hydrostatic pressure equal to 150 psi in excess of that under which they will operate.

B. The pumps, gauges, plugs, saddles, corporations, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished and operated by the Contractor.

C. Pipeline shall be backfilled sufficiently to prevent movement of pipe under pressure.

D. Thrust blocks, if used, shall be in place and time allowed for the concrete to cure before testing.

E. Water supply for filling, testing and flushing of the new mains will be available from the existing distribution system at no cost for one testing and flushing cycle. Potable water source shall be equipped with a DOH approved backflow prevention device during filling. However, if water is needed for additional tests, the Contractor shall be billed for water used at the current rate of the Owner. High volume flushing of the system will occur after the permanent full diameter connection is made.

F. Procedure:

1. The mains shall be filled with water and all air removed prior to starting the test. While the system is being filled with water, air shall be carefully and completely exhausted. If

permanent air vents are not located at all high points, the Contractor shall install corporation stops or fittings and valves at such points so the air can be expelled as the pipe system is slowly filled with water. Service shall be tested as part of the main pipeline.

2. The test shall be accomplished by pumping the main up to the required pressure; stop the pump for 30 minutes, and then pump the main up to the test pressure again.

3. Feed for the pump shall be from a barrel or other container so that the actual amount of "makeup" water can be measured periodically during the test period.

4. Acceptability of the test will be determined by two factors:

   a. The quantity of water lost from the main shall not exceed the number of gallons per hour as determined by the formula:

$$L = \frac{SD\,(P)^{0.5}}{148{,}000}$$

in which

L = Allowable leakage, gallons/hour
S = Length of pipe being tested, feet
D = Nominal diameter of the pipe, inches
P = Average test pressure during the leakage test, psig

   b. There shall not be an appreciable or abrupt loss in pressure during the 30-minute test period.

   c. If water is lost in the main, the Contractor shall test in-between "in-line" valves to verify amount lost does not exceed the allowable water loss defined in Item "a" above.

5. Gauges used in the test shall be accompanied with satisfactory certifications of accuracy from a laboratory approved by the Engineer. Gauges shall be 0-400 psi and positioned so they are easily read.

G. All tests shall be made with the hydrant gate valves open and pressure against the hydrant ports. The next test shall be against the fire hydrant valve. After fire hydrant testing is completed, each gate valve shall be tested by closing each in turn and relieving the pressure beyond. This test of the gate valve will be acceptable if there is no immediate loss of pressure on the gauge when the pressure comes against the valve being checked.

H. Sections to be tested shall normally be limited to 1,500 feet.

I. Prior to calling out the Engineer to witness the pressure test, the Contractor shall have all equipment set up completely ready for operation and shall have successfully performed the test to be assured that the pipe is in a satisfactory condition.

3.8 DISINFECTION OF MAINS

A. Main sterilization shall be accomplished in accordance with the requirements of the State of Washington Department of Health or EPA by either of the following three methods at the Contractor's option. No other method of sterilization will be accepted by the Engineer, unless, prior to use, the Contractor obtains written approval from the Engineer.

B. Hypochlorite source solution shall conform to ANSI/NSF 60 for use in potable water.

C. Chlorine shall be applied in one of the following manners, listed in order of preference, to secure a concentration in the pipe of at least 50 ppm:

1. Injection of chlorine-water mixture from chlorinating apparatus through corporation cock at the beginning of section after pipe has been filled and with water exhausting at end of section at a rate controlled to produce the desired chlorine concentration.

2. Injection similarly of a hypochlorite solution.

3. Placement of dry chlorinated lime throughout pipeline as constructed in proper quantities to produce the desired dosage. Filling of pipeline with this method should be at a very slow rate. Pipeline should be filled within 2 days of placing sterilizing agent.

Initial and 24-hour chlorine doses shall be per AWWA C-651 latest version.

After the desired chlorine concentration has been obtained throughout the section of line, the water in the line shall be left standing for at least 24 hours. Following this, the line shall be thoroughly flushed and the Contractor shall collect a water sample to be tested; the Owner may also collect a sample. A second set of samples by the Contractor and Owner shall be taken 17 hours after the first sample. The line must not be placed in service until a satisfactory bacteriological report has been received.

The Contractor shall be solely responsible for disposal of chlorine flush water. At no time shall chlorinated water from a new main be flushed into a body of fresh water. This is to include lakes, rivers, streams, and any and all other waters where fish or other natural water life can be expected. See Section 3.9 for more flushing requirements.

Owner representatives only shall be allowed to operate existing and new tie-in valves. Contractor's personnel are expressly forbidden to operate any valve on any section of line which has been accepted by the Owner.

D. Should the disinfectant treatment result in an unsatisfactory test, the procedure shall be repeated until satisfactory results are obtained.

3.9 FLUSHING THE MAINS

A. Upon completion of pipe laying, chlorination and pressure testing, all dirt and foreign matter shall be removed by a thorough flushing through temporary blowoffs or other approved means. Each section of newly laid pipe between valves or dead ends shall be flushed independently, and dead end appurtenances shall be flushed simultaneously with the parent line. Minimum flush speed required is 2.5 feet per second.

B. The Contractor shall be responsible for rescheduling and organizing the work so as to use flushing water only during off-peak hours and in the most economical manner.

C. No flushing shall be performed without the prior approval of the Owner.

D. Contractor shall be solely responsible for disposal of chlorine flush water. At no time shall chlorinated water from a new main be flushed into a body of fresh water. This is to include lakes, rivers, streams, and any and all other waters where fish or other natural water life can be expected.

E. Contractor may discharge, with Owner's written permission, properly dechlorinated water into the Owner's sanitary sewers where available. If no sanitary sewers are present, Contractor shall flush into holding tank and dechlorinate the water prior to gradually discharging to storm drain or drainage ditch.

F. Dechlorination chemicals shall be as listed in AWWA C655, latest edition, and include but not limited to: ascorbic acid, sodium bisulfite, and sodium metabisulfite.

G. The Contractor shall provide all materials necessary to provide additional flushing after the connection is made, if the initial flushing speed was under 2.5 feet per second.

3.10 PLACING IN OPERATION

A. Conversion to the new main shall be done in segments in order to maintain water service to the customers. New pipe cannot be used until satisfactorily pressure and purity tested. Temporary connections between the existing and new mains shall be made using approved backfill prevention devices. Prior to transfer of services, one lateral connection to existing water system shall be made.

B. Upon completion of the installation, testing, and approval by agencies having jurisdiction, but before its final acceptance, the entire system shall be put in operation under normal pressure and operated at that pressure for a period of not less than ten (10) days by the Contractor.

C. Any leaks or defects in the construction of the system that may develop, shall be repaired and the test continued until the system is practically watertight.

D. No provision of this Section shall be construed as waiving any provision of the Contractor's guarantee.

E. The Owner reserves the right to use and occupy any portion of the improvements which have been completed sufficiently to permit use and occupancy, and such use and occupancy shall not be construed as an acceptance of the work as a whole or any part thereof. Any claims which the Owner may have against the Contractor shall not be deemed to have been waived by such use and occupancy.

*** * * END OF SECTION * * ***

SECTION 02760

EXISTING UTILITIES/FACILITIES UNDERGROUND AND OVERHEAD

1. GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Excavating, Backfilling and Compacting for Utilities: Section 02222

1.2 LEGAL REQUIREMENTS-UNDERGROUND FACILITIES

A. The Contractor shall, before commencing excavation in any area, comply with the provisions of any applicable laws relating to or governing the identification, location, marking, and responsibility for protecting and repairing of underground facilities.

B. Whenever there may be a conflict between the provisions of any law and the provisions of these specifications, the provisions of law shall control.

1.3 DEFINITIONS

A. Utility means any facility or item placed above or below ground for use in connection with the storage or conveyance of water, sewage, electronic, telephonic or telegraphic communication, cablevision, electric energy, petroleum products, gas, gaseous vapors, hazardous liquids, or other substances and including, but not limited to pipes, sewers, conduits, cables, valves, lines, wires, manholes, and attachments.

B. Pipe zone is defined as extending from the bottom of the required excavation to six (6) inches over the top of the pipe.

1.4 IDENTIFICATION

A. All underground utilities known by the Owner to be in the proposed area of excavation are identified on the project plan. Water main may not be properly located in places. Contractor shall pothole where necessary and approved by the Owner. See Section 02222.

B. The underground utilities identified on the plans have not and cannot be precisely located by the Owner or its agents or engineers and location is approximate only because such information is within the control of the owners of the underground utilities. The Owner, under this Contract, does not warrant the location of underground utilities.

C. NOTICE: Overhead electrical service lines are generally not shown on the drawings. Electrical transmission lines shown on the drawings are located by point to point, power pole to power pole con-

nections. The transmission cables or wires may be located on either side of the drawing location depending upon the configuration of the crossarms on the power poles or towers. Line voltage is not shown.

D. Other overhead utility lines are generally not shown on the drawings.

1.5 NOTIFICATION

A. It is the responsibility of the Contractor to give notice to the Owner or owners of any utilities known or suspected to be within the area of any proposed excavation or construction activities.

B. The Contractor is responsible to have the locations of underground utilities marked by the utility owners prior to beginning excavation by calling a “one-call” service at 1-800-424-5555 or 811 or by calling each individual utility company a minimum of 2 business days prior to work.

C. The Contractor is responsible for determining the extent of any hazard created by electrical power in all areas and shall follow procedures during construction as required by law and regulation. Prior to construction, the Contractor shall meet with utility owners and determine the extent of hazards and remedial measures and shall take whatever precautions may be required.

D. The Contractor's attention is directed to federal, state, and local safety codes relative to limitations of work in proximity to overhead power lines.

1.6 QUALITY ASSURANCE

A. The Contractor will be required to have available a pipe finder and a person capable in its use and to utilize same to satisfy himself as to the exact location of such underground facilities in the interest of avoiding unnecessary damage, maintenance costs, and to insure continuity of customer service.

B. Contractors shall cooperate with utility owners to aid in locations and maintenance of existing utilities.

1.7 ELECTRICAL TRANSMISSION AND SERVICE LINES

A. Since neither the Engineer nor the Owner can anticipate the construction methods or techniques and equipment to be used by the Contractor in performing the work, the extent of the possibility of the Contractor's equipment and personnel coming in contact with electrical transmission lines cannot be fully anticipated, and there is no representation that all electrical transmission lines are shown on the plans.

B. The Contractor is charged with the responsibility of observing and investigating the presence of any electrical transmission lines which

might impinge on the Contractor's work whether overhead or underground and shall consult with and utilize the information given by utility owners and operators to determine the extent of any hazards and remedial measures required, and follow appropriate safety procedures.

1.8 ABOVE GROUND UTILITIES

A. Existing above ground utilities, whether shown on the drawings or not, shall be maintained, relocated, rerouted, removed and restored as may be necessary by the Contractor in a manner satisfactory to owners and operators of the utilities.

1.9 UTILITY SERVICE LATERALS

A. Minor underground utility service lines, including but not limited to sanitary sewer services, gas services, water services, house or yard drains, and electricity or telephone services and driveway culverts shall be maintained, relocated, rerouted, removed and restored by the Contractor with the least possible interference with such services.

B. Even though the presence of minor underground utility service lines may be deemed changed or differing conditions, in no case shall the interference of such service lines be the basis for extra compensation except in the case of a conflict, not shown on the plans, with sanitary sewer service occurring at an elevation between the top and bottom of the proposed pipeline or structure together with the pipe zone, the Contractor will be reimbursed for costs thereof in accordance with the General Specifications.

1.10 RESTORATION BY UTILITY OWNER

A. The right is reserved by owners of public utilities and franchises to enter upon any street, road, right-of-way, or easement for the purpose of maintaining their property and for making necessary repairs or adjustments caused by the Contractor's operations.

B. The Contractor shall save the Owner harmless of any costs so incurred in restoration of a utility damaged by the Contractor except in special cases outlined above, and subject to the provisions of any law.

1.11 RESTORATION OF DRAINAGE FACILITIES

A. Where it is necessary for drainage facilities to be removed and replaced, existing pipe and catch basins may be reinstalled when approved by the agency having jurisdiction.

B. The materials shall be cleaned.

C. When it is necessary to replace existing pipe or catch basins, the new materials shall be of equal strength and similar design to existing materials.

D. Installation shall be in accordance with the applicable provisions of these specifications.

E. All costs, whether new or existing facilities are installed, shall be considered to be included in the unit prices bid for the various items and no additional payment shall be allowed.

*** * * END OF SECTION * * ***

Appendix A

Geotechnical Report

Materials Testing & Consulting, Inc.

Geotechnical Engineering ● Materials Testing ● Special Inspection ● Environmental Consulting

March 29, 2018
Revised April 23, 2018

Kevin Brown
Gray & Osborne, Inc.
3710 168th Street, Building B, Suite 210
Arlington, WA 98223

Cc: Deborah Bray, Transportation Manager, Tulalip Tribe

Subject: Hermosa Beach Area - Geotechnical Engineering Report – *Revision 1*
Marine Drive & 42nd Drive NW –Tulalip, WA

MTC Project No.: 17B184-01

Dear Mr. Brown:

This letter transmits our Geotechnical Engineering Report for the above-referenced project. Materials Testing & Consulting, Inc. (MTC) performed this geotechnical engineering study in accordance with our proposal and the executed contract, dated June 26, 2017.

We would be pleased to continue our role as your geotechnical engineering consultants during the project planning and construction. We also have a keen interest in providing materials testing and special inspection during construction of this project. We will be pleased to meet with you at your convenience to discuss these services.

We appreciate the opportunity to provide geotechnical engineering services to you for this project. If you have any questions regarding this report, or if we can provide assistance with other aspects of the project, please contact me at (360) 755-1990.

Respectfully Submitted,
MATERIALS TESTING & CONSULTING, INC.

Kurt W. Parker, L.G.
Senior Project Geologist

Medhanie Tecle, P.E.
Engineering Manager

Attachment: Geotechnical Engineering Report

REPORT OF GEOTECHNICAL ENGINEERING INVESTIGATION

HERMOSA BEACH AREA ROADWAYS – MARINE DRIVE & 42ND DRIVE NW

TULALIP, WASHINGTON

Prepared for:

Kevin Brown
Gray & Osborne, Inc.
3710 168th Street, Building B, Suite 210
Arlington, WA 98223

Prepared by:

3-29-2018

3-29-2018

Kurt W. Parker, L.G.
Senior Project Geologist

Medhanie Tecle, P.E.
Engineering Manager

MATERIALS TESTING & CONSULTING, INC. (MTC)
777 Chrysler Drive
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March 29, 2018
Revised on April 23, 2018
MTC Project Number: **17B184-01**

Table of Contents

1.0 INTRODUCTION

1.1 GENERAL

This report presents the findings, recommendations, and conclusions of Materials Testing & Consulting, Inc.'s (MTC) geotechnical engineering study conducted for design and construction of the proposed Hermosa Beach Area Pavement Improvements. The project area is located south of Marine Drive on 42nd Drive NW, 79th Place NW and 78th Place NW in Tulalip, Washington. A project vicinity map and aerial photo site plan of the project site are shown in Figures 1, 2 and 3 of Appendices A and B.

1.2 PROJECT DESCRIPTION

It is our understanding that the project consists of redevelopment of three roadways within the Hermosa Beach neighborhood area. Proposed improvements include pavement rehabilitation/preservation or reconstruction. Development locations will include: 42nd Drive NW (Coy Street), 79th Place NW and 78th Place NW. All of the streets mentioned above are currently developed with pavement and utility infrastructure. Parameters for this project include: pavement recommendations for overlay, partial to full reconstruction, and preservation methods, where applicable.

Actual roadway alterations have not been determined at the time of this report. The client provided a Request for Proposals for development areas during generation of Proposal for Services documentation by MTC at the commencement of the project. From provided correspondence with the client, it is assumed that the majority of roadways will undergo complete replacement as recommended within this report. Select locations may be considered for preservation methods. Pavement and site subgrade conditions were determined by field exploration, auger borings, asphalt coring and other subsurface activities as detailed within. Pavement design calculations were developed utilizing the American Association of State Highway and Transportation Officials (AASHTO-93) flexible pavement design methods.

MTC should be allowed to review the final plans and specifications for the project to ensure that the recommendations presented herein are appropriate. Recommendations and conclusions presented by this report will need to be re-evaluated in the event that changes to the proposed construction are made.

1.3 PURPOSE AND SCOPE OF SERVICES

The purpose of our study was to explore existing subsurface and pavement conditions along roadways at targeted locations for pavement preservation or reconstruction and stormwater infiltration potential in order to provide geotechnical engineering recommendations in support of design and construction of the proposed improvements. Our scope of services was consistent with that presented in our Proposal for Geotechnical Engineering Services, dated June 26, 2017.

2.0 SITE EXPLORATION AND LABORATORY TESTING

2.1 SITE EXPLORATION

MTC's site exploration activities for geotechnical investigation were performed on October 18th, October 19th and November 1st, 2017. Field work for data collection on October 18th and 19th involved directing and logging of seven (7) subcontracted geotechnical hollow-stem auger (HSA) boreholes at select locations as determined in the field. The boreholes were advanced to a maximum depth of approximately 16.5 feet below present grade (BPG). Exploration locations were selected by an MTC Licensed Geologist in conjunction with client communications and proposed developments and adjusted as existing access, traffic considerations and underground utilities allowed. Boreholes were advanced to evaluate consistency and type of shallow soils, as well as visibly confirming asphalt thicknesses and depths of imported or fill soils. All borehole explorations were conducted to planned depths and borings were terminated in generally dense to very dense conditions. Standard penetration tests (SPT) counts were recorded and disturbed soil samples were collected at 2.5 and 5-foot intervals from the surface to 10 feet BPG, then at 5-foot intervals thereafter to borehole termination at 16.5 feet BPG. Majority of the boreholes were terminated at planned depths of 11.5 feet BPG, with the exceptions of borehole B-1, which was advanced to 16.5 feet BPG and borehole B-4 which was terminated at 8.1 feet BPG due to hard conditions. Boreholes were initiated by cutting an approximately 10-inch diameter entry in the existing pavement before auger boring and SPT advance into the subgrade soils. Refusal criteria for SPT was considered 50 blows per 6-inches of penetration with a 140-pound hammer dropped 30 inches vertically. Boreholes were generally advanced with offsets of two to four feet from the existing pavement margin in the current developed roadways, backfilled with soil tailings and bentonite, and capped with cold patch on completion.

Borehole B-1 was advanced on 78th Place NW on the eastern end of the street, with borehole B-2 advanced on 78th Place NW on the east-central street area. Borehole B-3 was advanced on the western segment of 78th Place NW. Boreholes B-4 and B-5 were advanced on the eastern and western sections of 79th Place NW. Boreholes B-6 and B-7 were advanced on the north-central and south-central portions of 42nd Drive NW, respectively. Borehole exploration locations are shown in Appendix B, Figure 3 (Washington State Department of Ecology, *Coastal Atlas*, 2017).

MTC returned to the site on November 1st, 2017 to conduct asphalt coring and subsoil explorations by advancing Kessler Dynamic Cone Penetrometer (kDCP) tests. Coring of asphalt was completed by a subcontractor and used to determine existing pavement thicknesses and immediate soil conditions below pavement throughout the project area. Kessler advancements were performed by MTC staff within cored asphalt locations to evaluate soil consistency, compare with borehole results and to determine California Bearing Ratio (CBR) values; hence, providing partial data for pavement calculations. Kessler testing was advanced to a maximum depth of 90 cm or to refusal criteria of 20 blows per 5 centimeters

of advancement. All asphalt cores were taken to MTC's laboratory for further analysis and storage. Holes at the coring locations were covered with cold patch asphalt upon completion.

Because of the understanding that the project area will likely undergo full reconstruction of roadways and in consideration of the project scope, twenty-one (21) locations were selected for asphalt coring and subsequent kDCP tests. Spacing of the test locations was generally based on 100-foot intervals, with adjustments made for targeted areas of pavement in obviously poor condition or due to underground utility corridors and traffic concerns. Asphalt core/ kDCP test locations are referred to in this report with capital "C" and the numerical designation (Example C-17). Exploration locations C-1 through C-7 were advanced along 78th Place NW from east to west. Test locations C-8 through C-17 were advanced along 42nd Drive NW from south to north, terminating near Marine Drive. On 79th Place NW, test locations C-18 to C-21 were advanced within the roadway from east to west. All test locations generally were located two to four feet from the paved road margin. All test locations were successful in core and kDCP advancement, with the exception of C-10 which was cored for asphalt thickness but did not advance kDCP testing due to underground utility concerns.

Details of asphalt core/kDCP exploration locations are shown in Appendix B, Figure 4 and are approximate (WA DoE, *Coastal Atlas*, 2017). If greater precision on the location of individual testing locations are required, we recommend professional survey services be utilized. All site test locations were marked with the location number painted on the asphalt surface prior to departure. Additional information on the site exploration program is provided with Photos of Site Conditions as shown in Appendix C and with our exploration logs in Appendix D of this report. A table of asphalt and near surface soil data as well as photos of core samples collected during field explorations are presented in Appendix F of this report.

2.2 LABORATORY TESTING

Laboratory tests were performed on selected soil samples in accordance with ASTM standards to determine index and engineering properties of the site soils. Tests included supplementary soil classification and grain-size distribution analysis via sieve methods. Laboratory test results are presented on test reports included in Figures 6 through 12 of Appendix E.

3.0 EXISTING SITE CONDITIONS

3.1 SURFACE DESCRIPTION

The project vicinity is within a developed residential neighborhood south of Marine Drive and north of 77th Place NW in Tulalip, WA. The project is bounded by similar single-family residential developments to the west and south. Tulalip Creek forms a natural forested margin on the eastern area limit. The project ranges in elevation from approximately 60 feet above sea level at the intersection of 77th Place NW and 42nd Drive NW in the south, to about 100 feet above sea level at the intersection of Marine Drive and 42nd Drive NW in the north. The overall grades throughout the project area are level to gently sloping to the south and southeast, depending on location. The project location is accessed from Marine Drive in the north via 42nd Drive NW, and from 77th Place NW via 42nd Drive NW in the south. On the project eastern margin, 40th Drive NW (also referred to as Sheldon Gross Drive on some maps) provides access via a primitive gravel road, to the east side of 78th Place NW from the southeast. On the west-central portion of 42nd Drive NW, 79th Place NW provides neighborhood access from the west via Hermosa Beach Road on a primitive gravel road.

In a north-south alignment, south of Marine Drive, 42nd Drive NW is considered a neighborhood collector roadway, and provides primary access to the local vicinity. Running east-west, 79th Place NW is a dead-end local access road servicing a limited residential corridor. The roadway is currently blocked at it eastern margin with concrete barriers. 78th Place NW runs parallel to 79th Place NW and serves a similar residential area over a slightly longer length. As addressed above, the eastern margin connects to 40th Drive NW, and as such is considered a local access road. Traffic volumes were observed in the field to be greatest on 42nd Drive NW, containing decreased amounts on 78th Place NW with lowest volumes on 79th Place NW. The project roadways did not contain curbs, sidewalks, speed bumps or noticeable storm water drainage engineering at the surface.

The project as a whole spans approximately 1,645 linear feet of asphalt-paved roadways with distances of about 690 feet on 42nd Drive NW, 415 feet on 79th Place NW and 540 feet on 78th Place NW. Dates of original construction and more recent modifications to underground utility corridors were unknown at the time of our explorations and preparation of this report. All project roadways are heavily cracked and damaged, with the most significant asphalt breaks and potholing occurring on 78th Place NW and 79th Place NW; a lesser amount of degradation was observed within 42nd Drive NW, however the majority of this road shows strong evidence of wear. Site observations show that the utility corridor in some locations were upgraded more recently in the past and the surface of these features generally show less visible evidence of damage or wear than adjacent locations outside of the utility trenches. In certain sites on 79th Place NW, newer utility trench crossings were not re-paved following completion of construction. Individual homeowners have made primitive repairs to the most heavily damaged areas of

79th Place NW with the use of gravel backfill. Figures 2 and 3 of Appendix B as well as photographs displayed in Appendix C show details of the existing site conditions.

Vegetation of the area, at the time of our field explorations, consisted of maintained lawns, shrubbery and landscape development with some junior to mature deciduous and evergreen trees within individual lots and on roadway margins in select areas. A primarily mature forested corridor was observed adjacent to the eastern project boundary within the Tulalip Creek valley.

3.2 AREA GEOLOGY

The *Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington* published by the United States Geological Survey at *1:24,000* scale indicates that surface geology of the project site is composed of two Vashon Stade glacially-deposited units (Minard, 1985) . On the eastern margins of 79th Place NW and 78th Place NW, Unit *Qvr*—Recessional Outwash of the Fraser Glaciation is mapped over a broad area that extends at least one-half mile to the north, east and south of the project site. The *Qvr* unit is a recessional outwash deposit that consists of well-drained and stratified outwash sand and gravel deposited by meltwater from the stagnant and receding Vashon glacier, as found within the Tulalip Creek valley and vicinity. Localized silt and clay layers are present near the base of the unit. Some beds are cemented by iron oxide and the sand above the water table is oxidized. The unit ranges from several meters to upwards of 20 meters thick. Vashon till had apparently been eroded away prior to deposition of the recessional outwash member (Minard, 1985).

The majority of the project area including all of 42nd Drive NW and the west and central portions of 79th Place NW and 78th Place NW are mapped containing Unit *Qva*—Advance Outwash of the Vashon Stade of the Fraser glaciation. The deposit is mapped as an approximately 1,500-foot wide north-south trending linear feature. It is described as a clean pebbly sand with increased gravel higher in the section. Fine sand and silt are common in the lower portion of the unit with lenses and windows in the upper part. The advance outwash was deposited by meltwater flowing from the front of the advancing Vashon Glacier, with a typically upward-coarsening sequence. Vashon Till generally overlies the deposit regionally, however the mantling is irregular and may have been eroded away within the project area. The unit is estimated to be up to 130 meters thick in higher elevation areas (Minard, 1985).

The *Washington Geologic Information Portal*, published by the Washington State Department of Natural Resources (DNR) reports no mapped landslides within the project area or vicinity. Mapped Quaternary landslide deposits do occur further to the north of the project site along the immediate coastline, but are out of the realm of concern for this project. The South Whidbey Island fault zone—a NW trending blind strike-slip fault zone is located about 7 to 9 miles to the southwest of the project vicinity (accessed online).

The USDA *NRCS Web Soils Survey* (accessed online) maps three individual named soil units within the project area. The majority of the project site, including most west and central portions of 79th Place NW and 78th Place NW and the north and south segments of 42nd Drive NW, are mapped containing *Alderwood gravelly sandy loam* with 0 to 8 percent slopes. The landforms are hills and ridges and the parent material is glacial drift and/or glacial outwash over dense glaciomarine deposits. A typical profile consists of gravelly sandy loam from surface to 7 inches depth, with very gravelly sandy loam from 7 to 60 inches. It is moderately well-drained with a depth to a restrictive feature of 20 to 39 inches to densic material. This soil has a very low to moderately low capacity to transmit water (Ksat). Depth to the water table is reported ranging from 18 to 37 inches. It is a member of Hydrologic Soil Group B. Along the central portion of 42nd Drive NW and extending to the east and west, *Everett very gravelly sandy loam* is mapped with 0 to 8 percent slopes. The landforms are eskers, kames and moraines with the parent material consisting of sand and gravel glacial outwash. A typical profile consists of very gravelly sandy loam from surface to 24 inches depth, very gravelly loamy sand from 24 to 35 inches depth and extremely cobbly coarse sand from 35 to 60 inches. Depth to a restrictive feature is noted as more than 80 inches, with the depth to the water table reported as more than 80 inches. The unit is somewhat excessively drained with a high capacity to transmit water (Ksat). It is a member of Hydrologic Soil Group A. On the eastern margins of 79th Place NW and 78th Place NW, *Kitsap silt loam* is mapped with 0 to 8 percent slopes. The landform is terraces and the parent material is lacustrine deposits. A typical profile consists of ashy silt loam to silt loam from the surface to 33 inches, with stratified silt to silty clay loam from 33 to 60 inches depth. It is moderately well-drained with the depth to a restrictive feature given as more than 80 inches. It has a moderately low to moderately high capacity to transmit water (Ksat). Depth to the water table is reported as 18 to 30 inches. The unit is a member of Hydrologic Soil Group C.

Soil conditions encountered in the field consist primarily of native dense/very stiff to very dense/hard sandy silt to silty sand with varying amounts of gravel, overlain by thin sections of reworked native soils, cover fills and developed pavement surface. Native conditions are typical of glacially-derived sediments, and are thus consistent with local geology sources, however the scale of mapping may not entirely represent actual conditions encountered, and as always local variances do occur. A higher degree of natural soil compaction was observed within exploration locations generally, and existing soils mostly appeared to be representative of advance outwash or glacial till, based on density values attained site wide and considering the difficulty of drilling advance.

3.3 SOIL CONDITIONS

A general characterization of on-site soil units encountered during our geotechnical boring exploration at the seven planned locations is presented below. The exploration logs in Appendix D present details of

soils encountered at each exploration location. Asphalt core thicknesses from the borehole locations ranged from 1.0 inches to 2.0 inches in most locations and are included within this portion of the report. Section 3.4 will address additional core details and data as collected during the second phase of field exploration.

On-site soils are generally characterized as follows in stratigraphic order to depth:

- **Hot-Mix Asphalt Layer – ½-inch HMA:**
  Core thicknesses ranged from 1.0 to 2.0 inches in majority and averaged 1.7 inches across the site at 7 borehole locations (B-1 to B-7). All sections of hot-mix asphalt were constructed with ½-inch minus crushed aggregate underlain by pit run or gravel borrow-type fill base.

- **Fill – Pit Run/Gravel Borrow – Sand with Gravel to Gravel with Sand (SW-GW):**

  Imported fill soils commonly known as "pit run" were recorded below asphalt at all borehole locations within established roadways. As a side note, pit run fill was cataloged below all core/kDCP locations as well. The section of fill ranged in thickness from 0.2 feet at B-4 and B-5 along 79th Place NW, up to 0.6 feet thick at B-1 on 78th Place NW. The average thickness was 0.37 feet sitewide. The pit run fill was medium dense to dense in consistency, dry to damp and medium brown in color with low fines content.

- **Reworked Native Soils/Uncontrolled Fill – Silty Sand to Sandy Silt with Gravel (SM, SM-ML, ML):**
  Shallow soils encountered in borings were observed to vary between six of seven borehole locations, and commonly appeared to be disturbed or reworked native soils. Silty sand to sandy silt with gravel were observed below thin imported fill soils under the road base. Thicknesses of this section varied between locations but, generally extended from 0.5 to 2.0 feet BPG with slightly thicker sections at B-5 and B-7 extending to 2.5 feet BPG. No reworked native soils were encountered at B-3; however, a comparable thickness section of organic-rich relict topsoil was found where explored. Soils generally were medium dense/stiff to dense/very stiff, dry to damp, and varied in color from brown to orange-brown to reddish-brown. Soils had varied low to higher organic content disseminated, along with occasional roots and minor to strong oxidation. Gravel content ranged from about 10 to 20 percent.

- **Relict Topsoil/Uncontrolled Fill –Silt (OL-ML):**
  Found only at borehole B-3, from 0.5 to 2.5 feet BPG, a relict topsoil (or uncontrolled fill) was logged below pit run fills. The area of this borehole coincides with a zone of obvious subsidence and poor asphalt condition along 78th Place NW. Soils were soft, damp, and dark brown with some organic decay odor, high organic content disseminated and minor gravel.

- **Native Soils – Silty Sand to Sandy Silt with Gravel, Gravel with Sand and Silt (SM, ML, GW-GM):**

  In-situ fine to coarse-grained soils correlated with regional outwash deposits (or glacial till) were encountered at all boreholes, with upper contacts of 1.2 to 2.5 feet BPG and extending to the maximum depth of 16.5 feet BPG, where explored. Most boreholes were terminated at 11.5 feet BPG or shallower due to dense conditions. The grain-size field classification was dominated by silty sand to sandy silt with varying gravel percentages ranging from 10 to 25 percent on average. All native soils were generally dense/very still to very dense/hard in consistency, dry to damp and varied in color from light brown to brown to varying shades of gray depending on depth and location. Light to moderate scattered oxidation banding and mottling was observed occasionally throughout the soil column. A notable soils classification contrast was found at borehole B-6 on 42nd Drive NW, where gravel with sand and silt was found below the reworked soil contact at 2.1 feet BPG and extended to 7.0 feet BPG. Soils within this stratum were dry, very dense, contained some oxidation and were light brown to gray in color. In the majority of borehole locations and depths, the auger and split spoon sampling was advanced with difficultly through the soil column and sampling proved to be equally as difficult with high blow counts and lower recovery. All boreholes had high blow counts within almost every sampling interval, including counts of over 50 blows per sample and in many cases and reaching refusal criteria of 50 blows for six inches or less. Exceptions to this were: at B-7, at 2.5 feet BPG, with a low of 33 blows over 1 foot; at B-6 at 2.5 feet BPG with 40 blows for one foot of penetration; and at B-5 where 46 blows were recorded over a one-foot sample interval at 7.5 feet BPG.

3.4 ASPHALT CORING AND KESSLER DCP

Explorations of shallow soils directly below asphalt roadways were conducted throughout the project area at regularly spaced intervals and where practical access allowed. MTC subcontracted the advancement of 21 asphalt cores, with 4-inch diameter core bit, to evaluate general pavement thicknesses and to allow access for Kessler DCP advancements. Core thicknesses ranged from a low of 1.0 inch at C-6 and C-11 to a high of 3.0 inches at C-13, C-15 and C-17. On 78th Place NW, the average asphalt thickness was 1.9 inches. On 79th Place NW, average asphalt thickness was 1.6 inches. On 42nd Drive NW, the average thickness was 2.4 inches.

Photographs of groups of asphalt core samples are provided in Appendix F of this report, along with a table of asphalt and immediate subsurface conditions.

Kessler dynamic cone penetrometer (kDCP) testing was utilized to evaluate consistency of soils below asphalt coring locations to shallow depths. MTC staff conducted explorations using kDCP tests at 20 asphalt core locations to a maximum depth of 90 cm or to refusal conditions at shallower levels. Kessler DCP was not advanced at C-10 on 42nd Drive NW due to proximity to underground utilities. Kessler

data was then processed to determine California Bearing Ratio (CBR) values and provide a baseline for pavement calculations. Details of all 20 kDCP exploration locations can be found within the Exploration Logs in Appendix D of this report.

3.5 SURFACE AND GROUNDWATER CONDITIONS

No surface water features were observed within the project vicinity. The nearest bodies of water to the project site, at present, are Tulalip Creek, located approximately 130 feet east of the eastern terminus of 78th Place NW and approximately 20 feet lower in elevation. The Pacific Ocean at Tulalip Bay is located about 450 feet south of the intersection of 42nd Drive NW and 77th Place NW at the south margin of the project and approximately 60 feet lower in elevation.

No groundwater was encountered during borehole advancement at any of the seven exploration locations within the project site. Boreholes advanced as deep as 16.5 feet BPG at B-1 and to average depths of 11.5 feet. The boreholes did not intersect a perched or regional groundwater table.

Given the timeframe of the explorations in the mid-fall, conditions are assumed to be typical for the start of the wet season; water levels are anticipated to be relatively low, however elevated above seasonal reduced stages. Evidence of seasonal high groundwater conditions in the form of strong oxidation staining, banding and mottling was generally not observed during borehole advancement. At B-6 on 42nd Street NW, light mottling and oxidation banding was observed at 7.5 feet BPG. Given the coarse-grained nature of the existing soils and the proximity to the nearest surface water in Tulalip Creek approximately 20 vertical feet lower in elevation, we do not anticipate regional groundwater levels to be of concern for this project. Due to the generally dense nature of the site soils, we do anticipate the potential for perched water conditions during the winter months or storm events at relatively shallow levels, and the choice of season of construction should be considered by the designer. More significant oxidation and staining were found in the near-surface reworked native soils at shallow depths of 2.0 feet or less below grade. We attribute this oxidation feature to downward migration of surface and meteoric waters through the upper soil column during the wetter months.

MTC's current scope of investigation did not include observation, monitoring or determination of seasonal groundwater variations, or conclusive measurement or monitoring of groundwater elevations at the time of exploration. The interpreted seasonal water levels based on light oxidation banding evidence should not be construed as factual, and are only intended to be used for general planning purposes. Details on soil oxidation, mottling and staining as observed during field exploration are included in the boring logs in Appendix D.

4.0 KEY GEOTECHNICAL CONSIDERATIONS

This section discusses significant geotechnical issues that must be addressed in project planning and design and forms the basis for the geotechnical engineering design recommendations presented in Section 5.0 and construction recommendations presented in Section 6.0.

4.1 GENERAL SITE SOIL CONDITIONS

The results of MTC's investigation indicate that shallow native soil conditions at the proposed project area beneath asphalt pavement cover and fills consist of soils derived from Pleistocene-age Glacial Advance Outwash (Qva), and possibly Glacial Till (Qvt), composed typically of dense/very stiff to very dense/hard silty sand to sandy silt with gravel extending to roughly 11.5 or more feet BPG in borehole locations explored. Native soil conditions were typically encountered at depths of 1.5 to 2.5 feet BPG and continued through maximum depths explored and correlate with regionally mapped outwash deposits. Dense/very stiff to very dense/hard conditions were typically encountered by 2.5 feet depth in SPT boreholes and continued throughout the soil column explored at all locations. Overlying fill and disturbed local soils were observed to be of a medium dense/stiff consistency to dense/very stiff based on observed drilling behavior. CBR values of the upper approximately three feet of the soil column varied by location and displayed relatively high values. Only locations C-4, C-11, C-12, C-13 and C-19 had low values of 3.7 CBR. Three locations—C-2, C-3 and C-8 produced CBR values of approximately 8. The remainder of test locations had CBR values exceeding 15 and ranging to 50 or more.

The presence of uncontrolled fill or reworked native soils and localized relict topsoil at only shallow depths in the upper two feet of the exploration area indicates that traditional shallow preparation and construction methods are generally feasible for the proposed project and site conditions. The general absence of loose or soft native soils at potential subgrade levels will likely be favorable for common construction practices. Perched groundwater may be encountered if work is commenced in the later winter or early spring months and is dependent on specific location and methods selected for construction.

In general, site conditions at the majority of borehole locations indicate that modern construction fill materials and/or methods were not utilized completely during original construction. Locally sourced silty sand to sandy silt with gravel fill material was present below imported pit run fill soils in most borehole locations. Surface conditions at select areas indicate that the possibility of poor material selection, lack of compaction or insufficient methodology exists along roadway corridors. The majority of roadways in the project area were observed in poor conditions and therefore will likely need to undergo complete reconstruction.

A wide range of asphalt thicknesses were encountered during our field exploration ranging from a low value of 1.0 inches at C-6, C-11, and B-3, up to 3.0 inches at C-13, C-15, and C-17. The existing soil in

all cases below asphalt core and borehole locations was recorded as structural quality sand with gravel to gravel with sand (Gravel borrow/pit run), however the thickness was commonly logged at 0.5 feet or less in most cases. Evident damage to roadway asphalt and thickness and type of fill soils indicate that most locations will likely need to be prescribed full reconstruction to meet modern standards and potential future traffic loads. Common preservation methods will include chip or crack sealing and grind-and overlay procedures and be site specific. Heavy use, damaged or subsiding/failure areas should be considered for full section replacement or modified repair in the least case, where applicable.

4.2 SCOPE OF SITE GRADING

A grading plan was not available to MTC at the time of exploration and preparation of this report. However, based on discussions with the client, this study assumes finished site grade will approximate current grade. Therefore, depths referred to in this report are considered roughly equivalent to final depths.

4.3 TEMPORARY EXCAVATION CUT SLOPES, SHORING, AND DEWATERING

Plans for excavation including temporary cut slopes and proposed shoring methods were not available to MTC at the time of report production. Most excavations are anticipated to be shallow. However, with excavations for new construction or utility improvements that may exceed 4 feet depth, it is possible that one or both techniques will be used. Section 6.3 of this report provides general recommendations for treatment of temporary excavations. MTC can provide further consultation, design, and evaluation services for cut slopes if desired prior to and during construction. If shoring is required beyond typical OSHA standards, MTC can provide geotechnical engineering services for shoring design upon request.

Dewatering to some extent may be necessary for shallow excavations, especially if construction occurs in the wet season or during prolonged wet weather due to perched water potential. General recommendations for site preparation and wet weather construction are addressed in section 6.1.3 of this report. This study did not include a hydrogeologic evaluation necessary for accurate appraisal of site flow conditions or volume estimates. These findings shall be considered only generally suitable for planning and design of dewatering methods.

4.4 INFILTRATION DISCUSSION

Locations on the eastern margins of 78th Place NW and 79th Place NW were requested by the client to be targeted for stormwater infiltration potential during our borehole exploration program. Thus, boreholes B-1 and B-2 on 78th Place NW and B-4 on 79th Place NW were advanced in part to evaluate onsite stormwater infiltration at shallow levels. Dense to very dense native soils were discovered at shallow depths and persisted throughout boreholes at targeted areas and across the site as a whole.

Intact glacial soils appeared to have retained the effects of glacial consolidation which inhibits the soil's ability to transmit water past what may be considered for a typical gradation analysis. Based on

observed soil character in the field and these inferences, infiltration potential appears very low to virtually nil at near-surface levels, with unweathered glacial soils forming a site-wide limiting or restrictive hardpan condition.

The original intent of this study was to apply the Massmann (2003) equation for infiltration rate determination, following the methods of the 2012 DOE SMMWW in support of the stormwater facility design. However, for the conditions encountered being composed primarily of consolidated glacial soils, it is our understanding that this gradation-derived method is not applicable for use in such conditions. It is our opinion that the site is generally infeasible for infiltration because of the widespread nature of glacially compacted soils at shallow depths. An unknown level of infiltration capacity may be experienced within some near-surface soils, but not to the degree and reliability needed for design application. If an infiltration component is still considered for stormwater management after the results of this study and rate designation is required, we recommend in-situ field testing via Pilot Infiltration Test (PIT) methods be conducted per the 2012 DOE SMMWW.

Existing site conditions based on the 2012 DOE SMMWW and field observations have provided guidelines and data in the determination that infiltration of site stormwater is not considered feasible. MTC would not rule out an engineered solution to stormwater management at the project site that could include traditional shallow dispersion and sheet flow methods. The design team may consider conventional engineered methods for municipal stormwater management if all other means are determined to be infeasible for the project site and conditions. The design engineer may consider evaluation of adjacent neighborhood stormwater conveyance systems on more recently developed roadways such as 77th Place NW and further south on 42nd Drive NW to determine the feasibility of a tie-in solution routing storm waters to lower elevation.

5.0 GEOTECHNICAL DESIGN AND RECOMMENDATIONS

5.1 PAVEMENT DISCUSSION

Field work related to the development of pavement discussions and recommendations involved targeted borehole advancement, asphalt coring and kDCP advancement on all roadways throughout the project area as well as surface evaluation of existing road conditions. The client requested recommendations for pavement rehabilitation, preservation or reconstruction that are dependent on current conditions and the results of this report. Field safety was of some concern during road exploration operations, as the neighborhood collector roadway undergoes moderate traffic volumes daily. The neighborhood is fed by the major traffic route in the area, Marine Drive, which had observed high traffic volumes and vehicle speeds. Safety concerns mandated use of a local flagging and traffic control company provided by the Tulalip Tribe. Temporary traffic routing and additional safety in the forms of signage, lightweight street barriers and vehicles to protect field subcontractors and MTC staff were employed during field explorations. Due in part to traffic concerns and to existing utility corridors, site testing locations were affected and adjusted in the field accordingly.

The borehole testing by hollow-stem auger was intended to provide surface, shallow and deeper soils data and deliver generalized conditions for roadway areas of concern. Studied locations were evaluated to determine a causal relationship between visible surface evidence of asphalt damage and subgrade conditions below. MTC distributed HSA boreholes to provide optimal coverage across the site taking budget constraints into consideration and due to the realm of additional testing by core and kDCP explorations.

Asphalt coring and kDCP testing targeted shallow conditions directly in roadways and generally were constrained to spacing on 100-foot intervals. In areas of obvious visible surface damage to asphalt or as requested by the project engineer, the core/kDCP density was increased or adjusted to fit existing site conditions and data collection needs. Detailed logs and results of all subsurface exploration can be found within Appendix D, with core photographs of asphalt pavement conditions located in Appendix E.

MTC was provided traffic data on measured volumes for the project area by the Tulalip Tribe Transportation Division via correspondence with Gibson Traffic Consultants of Everett, Washington. Traffic volume estimates were provided for 42nd Drive NW, 78th Place NW and 79th Place NW. Values provided to MTC were in Average Daily Traffic (ADT) volumes and included truck percentages of 4 to 5% total volume.

In consideration of the project area overall, the variance of roadway types within, subsections of the project have been created for this report to provide detailed analysis as determined by site conditions and project team requests. As such, Section 5.2 of this report will discuss the three individual road segments in detail to provide further understanding of needs and the corresponding targeted recommendations.

ADTs representing both lanes and directions for the project areas were converted to Equivalent Single Axle Loads (ESAL) for use in our AASHTO flexible pavement design calculations. To do so, design zones were identified and assigned a typical lane value (primary drive lanes) based on the project layout and provided data. The total ADT was reduced by 50 percent to account for two lanes and arrive at a per-lane value. The ESAL was then calculated for a single lane using 4 to 5% truck traffic per day, assuming Semi Tractor Trailer Trucks as the largest vehicles on the roadway, where applicable. The three individual roads recognized during pavement calculations and include: higher volume zones of 180,000 design ESAL for the neighborhood collector on 42nd Street NW, moderate volume zons of 75,000 for local access street on 78th Place NW and low volumes zone of 45,000 ESAL for the dead-end 79th Place NW. Table 1 below summarizes the project area "design zones," their input parameters, and tabulated ESAL values as applied to AASHTO flexible pavement calculations discussed in the following section.

Table 1. Summary of Design Zones, Inputs and ESALs

Road / Location	No. of Lanes	ADT	Traffic Per Lane	ADT Per Lane	Tabulated ESAL	Design ESAL
42nd Drive NW*	2	<400	50%	200	179,056	180,000
78th Place NW*	2	<300	50%	40	73,521	75,000
79th Place NW*	2	<300	50%	25	41,990	45,000

*Estimates provided by Gibson Traffic Consultants.

CBR of Subgrade

For an initial conservative design approach, we have utilized a bulk subgrade value of CBR = 5 for pavement section design, which would allow for a range of shallow primarily coarse-grained soils of generally firm quality to remain beneath the pavement sections for new construction scenarios. This value assumes finished pavement grades will be similar to existing grade, and is based on data from our limited SPT borehole testing and core/kDCP explorations within paved roadways in the upper subsurface. This CBR value was selected as it corresponds at minimum to silty sand to sandy silt subgrade of loose to medium dense consistency, or better soils including existing structural fill base, if encountered.

If greater excavation depths are assured in site preparation with full replacement options considered, higher values of CBR = 10 or greater could be suitable for pavement design use, and lesser section thicknesses may be suitable for construction over consistently medium dense to dense subgrade. MTC can be contacted for revised pavement section calculation if required based on the final project grading plan in the event that major alterations are undertaken from the existing road conditions and levels.

AASHTO Flexible Pavement

Calculations were performed per AASHTO Flexible Pavement Design methods. Resulting sections are summarized per Design Zone ESAL value in Section 5.2 below. No reduction factor was used for pavement section drainage considering the nature of the site subgrade and the depth to interpreted seasonal high groundwater. The following other standard input parameters were used:

- Pavement Design Life = 20 years
- Terminal Serviceability Index = 2.0
- Reliability = 80
- Expected Growth Rate = 1%
- Subgrade CBR Value = 5

5.2 PAVEMENT DESIGN RECOMMENDATIONS

Pavement design sections developed with AASHTO-93 calculations were divided into three segments based on location, field data, ADT and ESAL numbers. Also in consideration are the type of improvements proposed. Numerous scenarios could arise with multiple contributing factors including: existing pavement thickness, subgrade type and condition, partial replacement options, project budget constraints and the need for full or partial reconstruction versus grind and overlay procedures or simple crack/chip seal. For clarity, we have provided commentary and tabular optional design scenarios for each roadway section that include HMA/CSTC/Gravel Base and HMA/CSBC options for reconstruction. Minimum asphalt pavement sections of 4 inches on 42nd Drive NW and 3 inches for 78th Place NW and 79th Place NW were adopted for the first option of full construction, which focuses on base improvements to increase design capacity and to provide frost protection. The second option adopts 4 inches of asphalt over a single lift of CSBC. The option for overlay procedures exist, however if the goal is to increase the pavement thickness for structural support at targeted areas it may be more beneficial to increase the overall section as pavement and structural fill thicknesses are generally less than the current standard. Ultimately, the project design engineer will determine the best fit scenarios for each area of roadway in consideration for improvement. MTC can be contacted for further consultation on final pavement sections, and for review of additional site information if obtained in order to further refine the information presented below.

The majority of the project area explored displayed subgrade soil conditions that do not generally meet current design standards. Therefore, the design engineer may consider the application of soil-and-cement mixtures or woven geotextile fabric to supplement and/or reinforce the subgrade soils originally utilized as road base across the majority of the project area. In the scenario of soil-and-cement mixtures, two primary types are prevalent in common construction practices: soil-cement and cement-modified soil. Soil-cement as a finished product is a hardened material which contains greater quantities of

cement by volume. Cement-modified soil can be unhardened, semi-hardened or hardened mixture of soil and cement with relatively less cement added as compared to soil-cement. If portions of the project area are selected for this treatment process, we refer the designer to the *Soil-Cement Construction Handbook*, 1995 by the Portland Cement Association, or more recent version, if available. MTC may be consulted for further recommendations on cement-soil treatment options on request.

Woven geosynthetic fabric such as *TenCate® RS380i* or industry equivalent may be considered by the designer to provide reinforcement, filtration, separation and confinement and to reduce imported fill soil volumes in a pavement section as a new design scenario. Calculations using *TenCate® Flexible Pavement Design* (Version 2.0.3.14) software indicate that for all other parameters being equal per AASHTO-93 standards, an equivalent ESAL value may obtained using an 8-inch Gravel Base/CSTC Section reinforced with a geosynthetic fabric, for example. As a general rule, a lighter geosynthetic fabric will contribute to approximately 2 inches of reduction in pavement section, while a more robust fabric will contribute up to 4 inches of section reduction. MTC can be consulted further if the designer elects to incorporate geosynthetic reinforcements into the new pavement sections.

Assuming that the project engineer elects to recommend the reconstruction option for portions of the project area, we have provided for clarity written commentary and tabular optional design scenarios for each roadway section that include HMA/CSTC/Gravel Base and HMA/CSBC options for reconstruction.

We strongly recommend a full review of as-built sections for all project roadway segments, if available, be incorporated into development and design of roadway improvements. Due to the episodic nature of the area road developments, a significant potential exists for local variations in the existing pavement sections. This is especially the case for any areas considered for overlay proposed to utilize an existing pavement section. The lateral consistency of existing sections should be reviewed via as-built or plan information, the findings of borehole and coring exploration in this study, and if necessary by direct field confirmation at key locations prior to or during construction.

SECTION 1: 42nd Drive NW

The highest volume of traffic for the project area extends south of Marine Drive from the entrance to the neighborhood for approximately 735 feet to the intersection with 77th Place NW. There are no curbs, sidewalk or speed bumps in this section. The roadway in older sections is heavily cracked and displays signs of subsidence and obvious potholing (Photos A-C). The newer section (northbound lane) that contains the utility corridor is generally in better condition than the southbound lane as observed in the northern area. As a whole, this roadway is in better condition when compared to 78th Place NW and 79th Place NW. Asphalt pavement thicknesses ranged from 1.0 to 3.0 inches at core locations C-8 to C-17, and 2.0 inches at boreholes B-6 and B-7. This zone may be considered for full reconstruction, partial

repair/replacement or overlay procedures. A minimum of 4 inches thick HMA is recommended with new construction for the CSTC/Gravel Base option. A minimum of 4 inches thick HMA is recommended if the designer elects to use a single section of CSBC below asphalt. Preservation efforts may include localized chip sealing and a thin overlay if desired. Asphalt thickness in some areas may limit the ability to perform grinding without removal of all of the roadway asphalt. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

42nd Drive NW		**Design ESAL=180,000**		
Design Scenario	**Pavement (1/2-inch HMA) (inches)**	**CSTC (inches)**	**Gravel Base (inches)**	**TOTAL (inches)**
New Construction	4	2	5	**11**
New Construction	4	-	6 (CSBC)	**10**

SECTION 2: 78th Place NW

A moderate to low volume traffic zone of the project area that extends east from the intersection with 42nd Drive NW to the gravel road on 40th Drive NW over approximately 550 linear feet. This roadway shows heavy singular and alligator cracking and subsidence locally, especially adjacent to the residence at 4208 78th Place NW (Photos F-G). It contains no curbs, sidewalks or speed bumps. Asphalt pavement thicknesses ranged from 1.0 to 2.75 inches at core locations C-1 to C-7, and 1.0 to 2.0 inches at boreholes B-1 to B-3. This section is generally considered for full replacement. The upper soils explored at borehole B-3 contained an approximately 2.0 feet thick section of relict topsoil near the surface. A minimum of 3 inches thick HMA is recommended with new construction for the CSTC/Gravel Base option. A minimum of 4 inches thick HMA is recommended if the designer elects to use a single section of CSBC. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

78th Place NW		**Design ESAL=75,000**		
Design Scenario	**Pavement (1/2-inch HMA) (inches)**	**CSTC (inches)**	**Gravel Base (inches)**	**TOTAL (inches)**
New Construction	3	2	6	**11**
New Construction	4	-	6 (CSBC)	**10**

SECTION 3: 79th Place NW

A low volume traffic zone of the project area that extends east from the intersection with 42nd Drive NW to the dead-end terminus, over a distance of about 460 feet. The roadway was observed with heavy potholing, local trench subsidence, cracking and areas void of asphalt surface (photos D-E). It has no curbs, sidewalks or speed bumps. Asphalt pavement thicknesses ranged from 1.25 to 2.25 inches at core locations C-18 to C-21, and 1.5 inches at boreholes B-4 to B-5. This section is generally considered for full replacement. A minimum of 3 inches thick HMA is recommended with new construction for the CSTC/Gravel Base option. A minimum of 4 inches thick HMA is recommended if the designer elects to use a single section of CSBC. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

79th Place NW		**Design ESAL=45,000**		
Design Scenario	**Pavement (1/2-inch HMA) (inches)**	**CSTC (inches)**	**Gravel Base (inches)**	**TOTAL (inches)**
New Construction	3	2	4	**9**
New Construction	4	-	4 (CSBC)	**8**

5.3 SEISMIC DESIGN PARAMETERS AND LIQUEFACTION DISCUSSION

According to the *Liquefaction Susceptibility Map of Snohomish County, Washington* and the accompanying *Seismic Site Class Map* (Palmer et al., 2004), the site vicinity is identified as having a *low to moderate* liquefaction susceptibility. Liquefaction is a phenomenon associated with a subsurface profile of relatively loose, cohesionless soils saturated by groundwater. Under seismic shaking the pore

pressure can exceed the soil's shear resistance and the soil 'liquefies', which may result in excessive settlements that are damaging to structures and disruptive to exterior improvements. The accompanying Seismic Site Class Map (Palmer et al., 2004) classifies the project area as Site Class C to D in majority, with Site Class D to E on the extreme eastern margins of 78th Place NW and 79th Place NW along the Tulalip Creek valley. Site Class C to D represents a relatively low to moderate potential for increased amplitude of ground shaking during a seismic event. Site Class D to E represents a relatively moderate to high potential for increased amplitude of ground shaking during a seismic event. Based on the results of site explorations, MTC interprets the site to have a relatively low to moderate risk of liquefaction due to the prevalence of dense native soil deposits wand the majority of the site located in a low to moderate risk seismic site class area. This determination is based on the encountered subsurface conditions to maximum depths explored as reported herein, which concurs with map designations.

The *USGS Seismic Design Map Tool* was used to determine site-specific seismic design coefficients and spectral response accelerations for the project site assuming design Site Class D, representing a subsurface profile (upper 100 feet) of generally dense or stiff soil conditions. Parameters in Table 2 were calculated using 2008 USGS hazard data and 2012/2015 International Building Code standards:

Table 2. Seismic Design Parameters – Site Class D

Mapped Acceleration Parameters (MCE horizontal)	S_S	1.275 g
	S_1	0.488 g
Site Coefficient Values	F_a	1.000
	F_v	1.512
Calculated Peak SRA	S_{MS}	1.275g
	S_{M1}	0.738 g
Design Peak SRA (2/3 of peak)	S_{DS}	0.850 g
	S_{D1}	0.492 g
Seismic Design Category – Short Period (0.2 Second) Acceleration		D
Seismic Design Category – 1-Second Period Acceleration		D

6.0 CONSTRUCTION RECOMMENDATIONS

6.1 EARTHWORK

6.1.1 Excavation

Excavations can generally be performed with conventional earthmoving equipment such as bulldozers, scrapers, and excavators.

Where possible, excavations made within about one foot of finished subgrade level should be performed with smooth edged buckets to minimize subgrade disturbance and the potential for softening to the greatest extent practical.

6.1.2 Subgrade Evaluation and Preparation

After excavations have been completed to the planned subgrade elevations, but before placing fill or structural elements, the exposed subgrade soils should be evaluated under the full-time observation and guidance of an MTC representative. Where appropriate, the subgrade should be proof-rolled with a minimum of two passes with a fully loaded dump truck, water truck or scraper. In circumstances where this seems unfeasible, an MTC representative may use alternative methods for subgrade evaluation.

Any loose soil should be compacted to a firm and unyielding condition and at least to 95 percent of the modified Proctor maximum dry density per ASTM D1557. Any areas that are identified as being soft or yielding during subgrade evaluation should be over-excavated to a firm and unyielding condition or to the depth determined by the geotechnical engineer. Where over-excavation is performed below a structure, the over-excavation area should extend laterally beyond the outside of the cut area a distance equal to the depth of the over-excavation below the cut area. The over-excavated areas should be backfilled with properly compacted structural fill.

6.1.3 Site Preparation, Erosion Control and Wet Weather Construction

The various fills and silty sand to sandy silt with gravel native soils at potential excavation depth are moisture sensitive and could become soft and difficult to compact or traverse with construction equipment when wet. During wet weather, the contractor should take measures to protect exposed subgrades and limit construction traffic during earthwork activities.

Once the geotechnical engineer has approved a subgrade, further measures should be implemented to prevent degradation or disturbance of the subgrade. These measures could include, but are not limited to, placing a layer of crushed rock or lean concrete on the exposed subgrade, or covering the exposed subgrade with a plastic tarp and keeping construction traffic off the subgrade. Once subgrade has been approved, any disturbance because the subgrade was not protected should be repaired by the contractor at no cost to the owner.

During wet weather, earthen berms, sand bags or other methods should be used to prevent runoff from draining into excavations. All runoff should be collected and disposed of properly. Measures may also be required to reduce the moisture content of on-site soils in the event of wet weather. These measures can include, but are not limited to, air drying and soil amendment, etc.

Since the on-site soils may be difficult to work with during periods of wet weather due to elevated soil moisture content, and frozen soil is not suitable for use as structural fill, we recommend that earthwork activities generally take place in late spring, summer or early fall. In addition, late summer may be the most preferable time for construction, corresponding to the period of generally lowest surface and ground water occurrences and the least likelihood of rain events leading to water seepage into excavations.

Dewatering efforts may be required depending on total excavation depth, season of construction, and weather conditions during earthwork. MTC recommends major earthwork activities take place during the dry season if possible to minimize the potential for encountering perched groundwater, and to reduce the likelihood of surface water runoff entering the excavation.

6.2 STRUCTURAL FILL MATERIALS AND COMPACTION

6.2.1 Materials

All material placed below pavement areas should be considered structural fill. It is likely, in sections that are to be fully reconstructed, that structural fill will need to be imported. Structural fill material shall be free of deleterious material, have a maximum particle size of 6 inches, and be compactable to the required compaction level.

Due to the minimal extent of suitable structural fills as explored, road base fills are generally not considered to be available in significant quantities to be considered for re-use as structural fill. Native soils consisting primarily of silty sand to sandy silt may be suitable for limited re-use as trench backfill, however individual soils at specific locations will need to be evaluated by an MTC representative on a case by case basis and be of significant volume for required fill estimates. On site native silty sand to sandy silt will likely be moisture sensitive and difficult or impossible to compact in the wet season.

Existing site soils encountered locally and subject to consideration for re-use as structural fill should be carefully removed and stored to prevent sediment cross-contamination, confirmed prior to placement, properly moisture-conditioned and placed in accordance with the recommendations provided below for Placement and Compaction. During warm, dry weather, it will likely be necessary to add water to these soils after residing in stockpiles. The condition and suitability of stockpiled on-site materials should be verified prior to reuse as structural fill. Material properties shall meet project specifications for the intended use.

Imported material can be used as structural fill. Imported structural fill material should conform to Section 9-03.14(1), Gravel Borrow, of the most recent edition (at the time of construction) of the State of Washington Department of Transportation *Standard Specifications for Road, Bridge, and Municipal Construction (WSDOT Standard Specifications).*

Controlled-density fill (CDF) or lean mix concrete can be used as an alternative to structural fill materials, except in areas where free-draining materials are required or specified.

Frozen soil is not suitable for use as structural fill. Fill material may not be placed on frozen soil.

The contractor should submit samples of each of the required earthwork materials to the geotechnical engineer for evaluation and approval prior to delivery to the site. The samples should be submitted at least 5 days prior to their delivery and sufficiently in advance of the work to allow the contractor to identify alternative sources if the material proves unsatisfactory.

6.2.2 Placement and Compaction

Prior to placement and compaction, structural fill should be moisture conditioned to within 3 percent of its optimum moisture content. Loose lifts of structural fill shall not exceed 12 inches in thickness; thinner lifts will be required for walk-behind or hand operated equipment.

All structural fill shall be compacted to a dense and unyielding condition and to a minimum percent compaction based on its modified Proctor maximum dry density as determined per ASTM D1557. Structural fill placed for each of the following shall be compacted to the indicated percent compaction:

Pavement Subgrades (upper 2 feet):	95 Percent
Pavement Subgrades (below 2 feet):	90 Percent
Utility Trenches (upper 4 feet):	95 Percent
Utility Trenches (below 4 feet):	90 Percent
Foundation Backfill:	95 Percent

We recommend that fill placed on slopes steeper than 3:1 (H:V) be 'benched' in accordance with hillside terraces entry of section 2-03.3(14) of the WSDOT Standard Specifications.

We recommend structural fill placement and compaction be observed on a full-time basis by an MTC representative. A sufficient number of tests shall be performed to verify compaction of each lift. The number of tests required will vary depending on the fill material, its moisture condition and the equipment being used. Initially, more frequent tests will be required while the contractor establishes the means and methods required to achieve proper compaction.

6.3 TEMPORARY EXCAVATIONS AND CUT SLOPES

All excavations and slopes must comply with applicable local, state, and federal safety regulations. Construction site safety is the sole responsibility of the Contractor, who shall also be solely responsible for the means, methods, and sequencing of construction operations. We are providing soil type information solely as a service to our client for planning purposes. Under no circumstances should the information be interpreted to mean that MTC is assuming responsibility for construction site safety or the Contractor's activities; such responsibility is not being implied and should not be inferred.

Unreinforced temporary excavations in the site soils should be inclined no steeper than 2H:1V, with the exception of the excavation base which may be treated more steeply in accordance with the OSHA Excavations Standard as applicable. Applying lesser grades may be necessary depending on actual conditions encountered and the potential presence of water seepage. Heavy construction equipment, building materials, excavated soil, and vehicular traffic should not be allowed near the top of any excavation. Where the stability of adjoining roads or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning may be required to provide structural stability and to protect personnel working within the excavation. Earth retention, bracing, or underpinning required for the project (if any) should be designed by a professional engineer registered in the State of Washington.

Temporary excavations and slopes should be protected from the elements as necessary by covering with plastic sheeting or some other similar impermeable material. Sheeting sections should overlap by at least 12 inches and be tightly secured with sandbags, tires, staking, or other means to prevent wind from exposing the soils under the sheeting.

6.4 PERMANENT SLOPES

MTC recommends that new areas of permanent slopes including fill embankments be inclined no greater than 3H:1V. Permanent slopes should be planted with a deep-rooted, rapid-growth vegetative cover as soon as possible after completion of slope construction. Alternatively, the slope should be covered with plastic, straw, etc. until it can be landscaped.

6.5 UTILITY TRENCHES AND EXCAVATIONS

The contractor shall be responsible for the safety of personnel working in utility trenches. Given that steep excavations in native soils may be prone to caving, we recommend all utility trenches, but particularly those greater than 4 feet in depth, be supported in accordance with state and federal safety regulations.

7.0 ADDITIONAL RECOMMENDED SERVICES

The recommendations made in this report are based on the assumption that an adequate program of tests and observations will be made during construction to verify compliance with these recommendations. Testing and observations performed during construction should include, but not necessarily be limited to, the following:

- Geotechnical plan review and engineering consultation as needed prior to construction phase,
- Observations and testing during site preparation, earthwork, structural fill, and pavement section placement,
- Consultation on temporary excavation cutslopes and shoring if needed,
- Testing and inspection of any concrete or asphalt included in the final construction plans, and
- Consultation as may be required during construction.

We strongly recommend that MTC be retained for the construction phase of this project to provide these and other services. Our knowledge of the project site and the design recommendations contained herein will be of benefit in the event that difficulties arise and either modifications or additional geotechnical engineering recommendations are required or desired. We can also, in a timely fashion observe the actual soil conditions encountered during construction, evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and recommend appropriate changes in design or construction procedures if conditions differ from those described herein.

We further recommend that project plans and specifications be reviewed by us to verify compatibility with our conclusions and recommendations.

Also, MTC retains fully accredited, WABO-certified laboratory and inspection personnel, and is available for this project's testing, observation and inspection needs. Information concerning the scope and cost for these services can be obtained from our office.

8.0 LIMITATIONS

Recommendations contained in this report are based on our understanding of the proposed development and construction activities, our field observations and exploration and our laboratory test results. It is possible that soil and groundwater conditions could vary and differ between or beyond the points explored. If soil or groundwater conditions are encountered during construction that vary or differ from those described herein, we should be notified immediately in order that a review may be made and supplemental recommendations provided. If the scope of the proposed construction, including the proposed loads or structural locations, changes from that described in this report, our recommendations should also be reviewed.

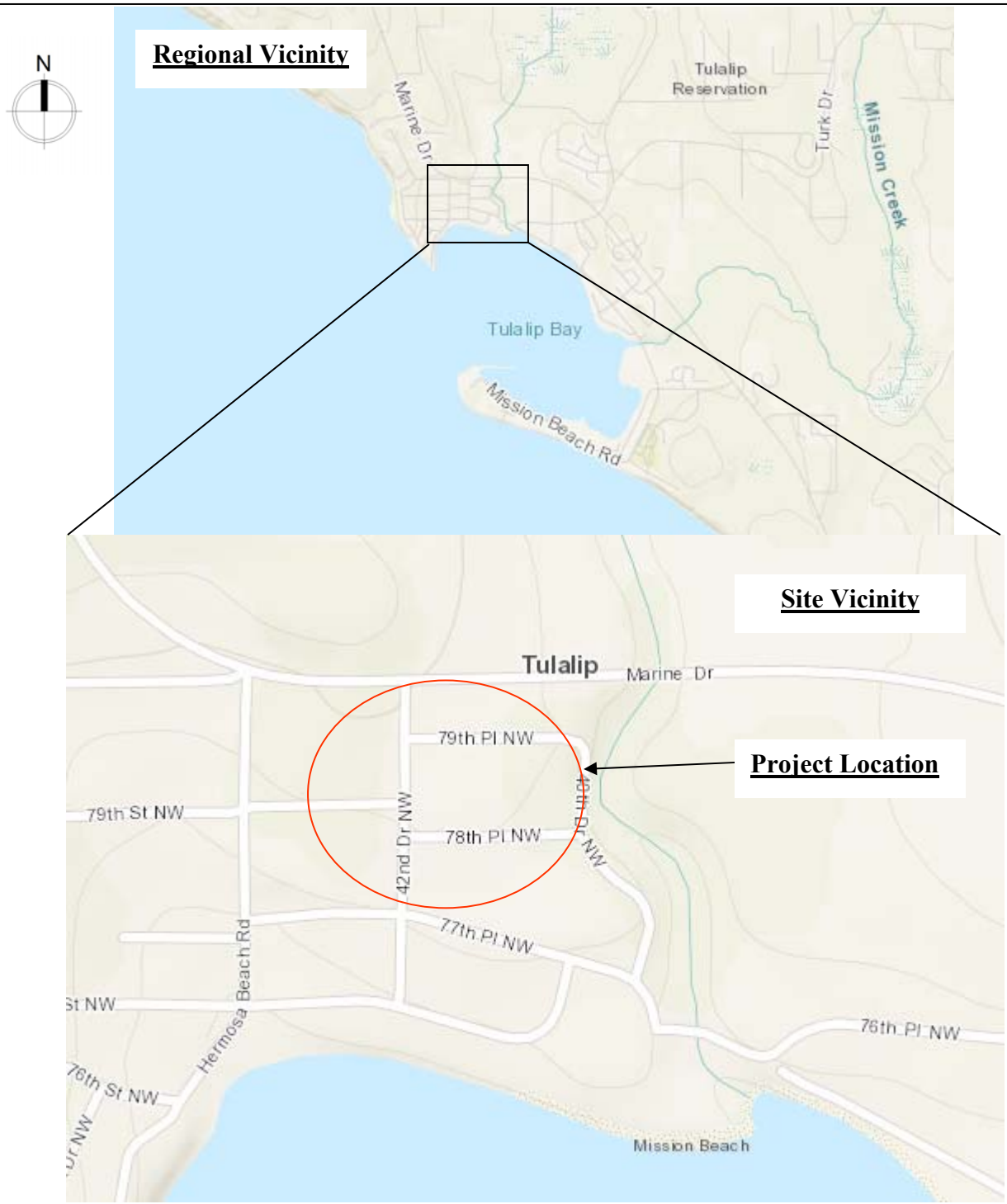
We have prepared this report in substantial accordance with the generally accepted geotechnical engineering practice as it exists in the site area at the time of our study. No warranty, express or implied, is made. The recommendations provided in this report are based on the assumption that an adequate program of tests and observations will be conducted by MTC during the construction phase in order to evaluate compliance with our recommendations. Other standards or documents referenced in any given standard cited in this report, or otherwise relied upon by the author of this report, are only mentioned in the given standard; they are not incorporated into it or "included by referenced", as that latter term is used relative to contracts or other matters of law.

This report may be used only by Gray & Osborne, Inc. and their design consultants and only for the purposes stated within a reasonable time from its issuance, but in no event later than 18 months from the date of the report. Note that if another firm assumes Geotechnical Engineer of Record responsibilities they need to review this report and either concur with the findings, conclusions, and recommendations or provide alternate findings, conclusions and recommendation under the guidance of a professional engineer registered in the State of Washington. The recommendations of this report are based on the assumption that the Geotechnical Engineer of Record has reviewed and agrees with the findings, conclusion and recommendations of this report.

Land or facility use, on- and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, MTC may recommend that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by Gray & Osborne, Inc. or anyone else will release MTC from any liability resulting from the use of this report by any unauthorized party and Gray & Osborne, Inc. agrees to defend, indemnify, and hold harmless MTC from any claim or liability associated with such unauthorized use or non-compliance. We recommend that MTC be given the opportunity to review the final project plans and specifications to evaluate if our recommendations have been properly interpreted. We assume no responsibility for misinterpretation of our recommendations.

The scope of work for this subsurface exploration and geotechnical report did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.

Appendix A. SITE LOCATION AND VICINITY



Maps Source:
ArcGIS, 2017

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98226	**Regional Site Vicinity** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **1**

Appendix B. EXPLORATION LOCATIONS

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Boring Exploration Locations** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	Base Photo: WA DoE, *Coastal Atlas*, 2017 Modified by MTC: 12-12-17 KWP NOT INTENDED FOR CONSTRUCTION **NOT TO SCALE – Locations approximate**	**FIGURE** **2**

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Coring/Kessler Locations** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	Base Photo: WA DoE, *Coastal Atlas*, 2017 Modified by MTC: 12-12-17 NOT INTENDED FOR CONSTRUCTION **NOT TO SCALE – Locations approximate**	**FIGURE** **3**

Appendix C. PHOTOS OF SITE CONDITIONS

Photo A: Site of core/kDCP C-8 on the south end of 42nd Drive NW displaying existing conditions. The new pavement edge is at the bottom of the picture, with typical cracking patterns throughout. Facing north.

Photo B: Location of core/kDCP C-13 on 42nd Drive NW. The right of the picture displays a newer asphalt patch over the utility corridor running parallel to the street, and an older section on the left with typical failure due to cracking. The gravel road named 79th Street NW is in left center of picture. Facing north.

Photo C: Facing north toward Marine Drive near core/kDCP C-16 on 42nd Drive NW. Photo displays newer utility corridor pavement on the right and older section on the left with damage.

Photo D: Facing east along the alignment of 79th Place NW with 42nd Drive NW in the lower portion of the photo. Photo displays heavy damage and temporary gravel patching.

Photo E: Facing west from near the project terminus on 79th Place NW with stop sign and 42nd Drive NW in the far distance. Photo displays typical conditions with a utility corridor running the in center of the picture and damaged portions to either side.

Photo F: Facing west on 78th Place NW near core/kDCP C-7. Photo displays some of the more significant road damage on the right with a manhole and utility corridor running parallel to the roadway in slightly better condition.

Photo G: Facing southeast on 78th Place NW near borehole B-2. Photo displays typical cracking along the boundary of the utility corridor under the driller's utility trailer.

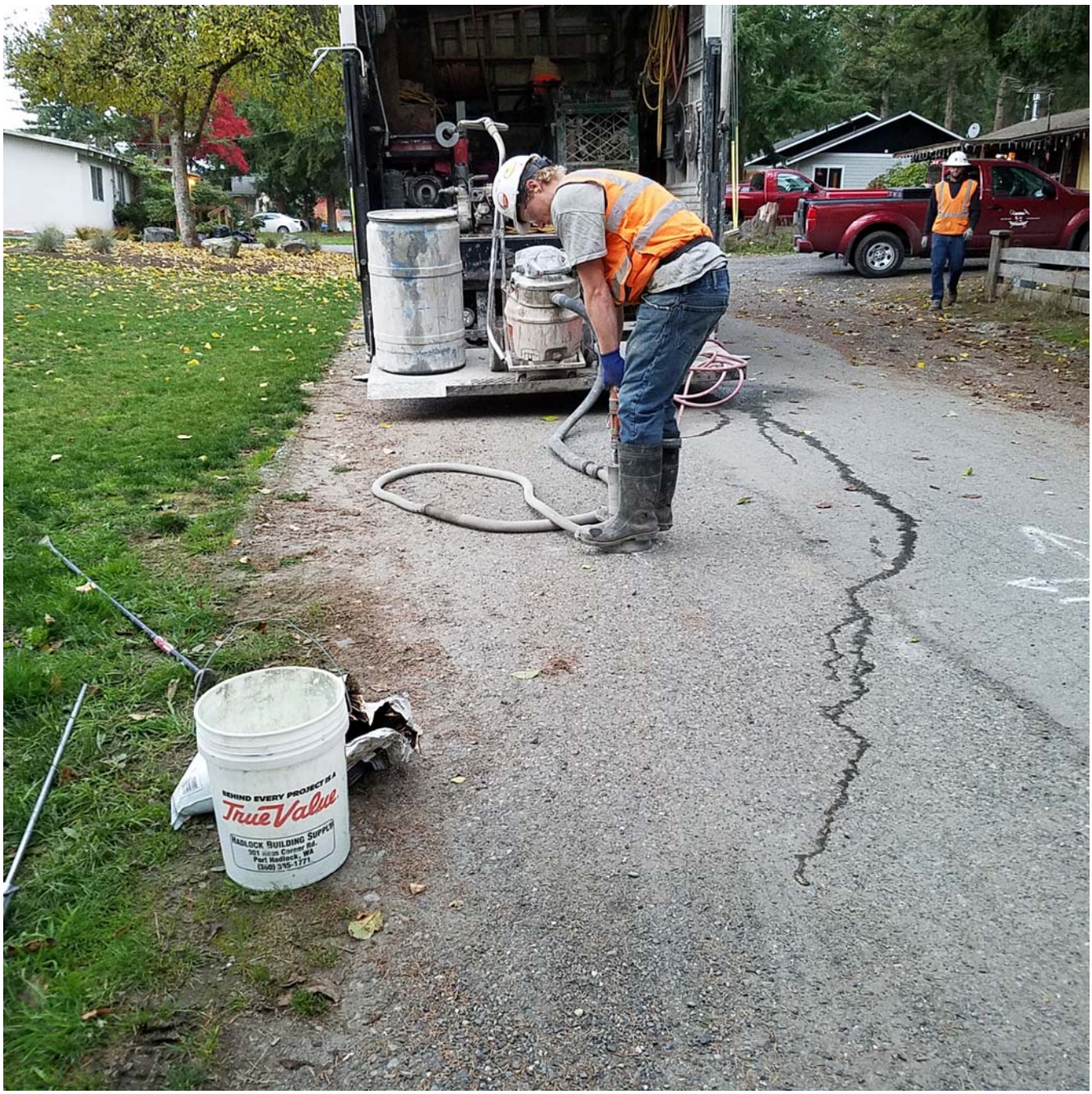


Photo H: Facing west on 78th Place NW near core/kDCP C-1.

Photo I: MTC Geologist during Kessler DCP advancement at C-12 on 42nd Street. Facing north.

APPENDIX D. EXPLORATION LOGS

Grab soil samples were collected from each exploration location by our field geologist during borehole advancement. Soil samples collected during the field exploration were classified in accordance with ASTM D2487. All samples were placed in plastic bags to limit moisture loss, labeled, and returned to our laboratory for further examination and testing. Asphalt core samples were collected from each exploration location and taken to MTC's Burlington laboratory for further documentation.

Exploration logs are shown in full in Appendix D. The explorations were monitored by our field geologist who examined and classified the materials encountered in accordance with the Unified Soil Classification System (USCS), obtained representative soil samples, and recorded pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence. Upon completion, boreholes were backfilled with native soil and bentonite chips and tamped near the surface to ensure safe passage of following field activities. Asphalt core sample were backfilled in lifts with cold patch asphalt and tamped to a dense condition.

The stratification lines shown on the individual logs represent the approximate boundaries between soil types; actual transitions may be either more gradual or more severe. The conditions depicted are for the date and location indicated only, and it should not necessarily be expected that they are representative of conditions at other locations and times.

Unified Soil Classification System Chart

Major Divisions			Graph	USCS	Typical Description
Coarse Grained Soils More Than 50% Retained On No. 200 Sieve	**Gravel** More Than 50% of Coarse Fraction Retained On No. 4 Sieve	Clean Gravels		GW	Well-graded Gravels, Gravel-Sand Mixtures
				GP	Poorly-Graded Gravels, Gravel-Sand Mixtures
		Gravels With Fines		GM	Silty Gravels, Gravel-Sand-Silt Mixtures
				GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	Sand More Than 50% of Coarse Fraction Passing No. 4 Sieve	Clean Sands		SW	Well-graded Sands, Gravelly Sands
				SP	Poorly-Graded Sands, Gravelly Sands
		Sands With Fines		SM	Silty Sands, Sand-Silt Mixtures
				SC	Clayey Sands, Clay Mixtures
Fine Grained Soils More Than 50% Passing The No. 200 Sieve	**Silts & Clays**	Liquid Limit Less Than 50		ML	Inorganic Silts, rock Flour, Clayey Silts With Low Plasticity
				CL	Inorganic Clays of Low To Medium Plasticity
				OL	Organic Silts and Organic Silty Clays of Low Plasticity
	Silts & Clays	Liquid Limit Greater Than 50		MH	Inorganic Silts of Moderate Plasticity
				CH	Inorganic Clays of High Plasticity
				OH	Organic Clays And Silts of Medium to High Plasticity
Highly Organic Soils				PT	Peat, Humus, Soils with Predominantly Organic Content

Sampler Symbol Description

- Standard Penetration Test (SPT)
- Shelby Tube
- Grab or Bulk
- California (3.0" O.D.)
- Modified California (2.5" O.D.)

Stratigraphic Contact

- Distinct Stratigraphic Contact Between Soil Strata
- Gradual Change Between Soil Strata
- Approximate location of stratagraphic change

- Groundwater observed at time of exploration
- Measured groundwater level in exploration, well, or piezometer
- Perched water observed at time of exploration

Modifiers

Description	%
Trace	>5
Some	5-12
With	>12

Soil Consistency

Granular Soils		Fine-grained Soils	
Density	***SPT Blowcount***	***Consistency***	***SPT Blowcount***
Very Loose	0-4	Very Soft	0-2
Loose	4-10	Soft	2-4
Medium Dense	10-30	Firm	4-8
Dense	30-50	Stiff	8-15
Very Dense	> 50	Very Stiff	15-30
		Hard	> 30

Grain Size

DESCRIPTION		SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE
Boulders		> 12"	> 12"	Larger than a basketball
Cobbles		3 - 12"	3 - 12"	Fist to basketball
Gravel	Coarse	3/4 - 3"	3/4 - 3"	Thumb to fist
	Fine	#4 - 3/4"	0.19 - 0.75"	Pea to thumb
Sand	Coarse	#10 - #4	0.079 - 0.19"	Rock salt to pea
	Medium	#40 - #10	0.017 - 0.079"	Sugar to rock salt
	Fine	#200 - #40	0.0029 - 0.017"	Flour to Sugar
Fines		Passing #200	< 0.0029"	Flour and smaller

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Exploration Log Key** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **4**

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755 Chrysler Drive
Burlington, WA

Log of Boring B-1

(Page 1 of 2)

Hermos Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/18/17
Date Completed : 10/18/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 78th Place NW, 488' E of 42nd Dr NW, 3' N of pavement edge
Logged By : KP/CD

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Water Level	% Finer than #200	% Moisture	Blow Count	Blow Count Graph (0 20 40 60 80)
0	FB		Hot mix asphalt, 2.0" thick, 1/2" HMA						
	SW		FILL: SAND with GRAVEL, medium dense to dense, damp, minor silt, pit run imported fill. BROWN						
1	SM-ML		FILL: SILTY SAND to SANDY SILT with GRAVEL, dense/hard, damp, trace root fragments, moderate disseminated organic content, reworked native fill. Reddish BROWN						
			SILTY SAND with GRAVEL, very dense, dry to damp, some roots fragments, moderate oxidation. Light BROWN to GRAY						
2									
3						20.7	5.6	73	
4			Difficult drilling conditions, rig shaking.						
5	SM		Poor recovery, rock in shoe, color change to light GRAY, slight increase in fines content in tailings.					50	
6									
7			Difficult drilling conditions, rig shaking, continues to 8.0' BPG. .						
8								95	
9	SM-ML		SILTY SAND to SANDY SILT with GRAVEL, dense to very dense, damp. Light GRAY						
10			Difficult drilling conditions, rig shaking.						

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755 Chrysler Drive
Burlington, WA

Log of Boring B-1

(Page 2 of 2)

Hermos Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/18/17
Date Completed : 10/18/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 78th Place NW, 488' E of 42nd Dr NW, 3' N of pavement edge
Logged By : KP/CD

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Water Level	% Finer than #200	% Moisture	Blow Count	Blow Count Graph (0 20 40 60 80)
10									
11								69	
12									
13	SM-ML		Tailings show increased fines content, some clay, rig advances with difficulty.						
14									
15			30% gravel in tailings.						
16			TD:16.0' BPG. Boring terminated at planned depth. No groundwater encountered during advance.					50	
17									
18									
19									
20									

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Burlington, WA

Log of Boring B-2

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Hermosa Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/18/17
Date Completed : 10/18/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 78th Place NW, 353' E of 42nd Dr NW, 3' N of pavement egde
Logged By : KP/CD

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Water Level	% Finer than #200	% Moisture	Blow Count	Blow Count Graph (0 20 40 60 80)
0	FB		Hot mix asphalt, 2.0" thick, 1/2" HMA.						
	SW		FILL: SAND with GRAVEL, medium dense to dense, damp, pit run fill. BROWN						
1	SM		SILTY SAND with GRAVEL, dense, damp, some tree roots, minor disseminated organics, strongly oxidized, reworked to weathered native soil. Reddish BROWN						
2									
3			SILTY SAND with GRAVEL, dense to very dense, dry to damp, some mottling & oxidation, 30-40% gravel. Light BROWN			21.1	4.2	91	
4									
5			No recovery. Rock in shoe. Soil logged from cuttings. Very dense.						
6								90	
7	SM								
8			Damp conditions, some oxidation of gravel clasts, 20% gravel, GRAY BROWN color.						
9								66	
10			15-20% gravel, moderate recovery, very dense.						
11								83	
12			TD:11.5' BPG. Boring terminated at planned depth. No groundwater encountered during advance.						
13									

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Burlington, WA

Log of Boring B-3

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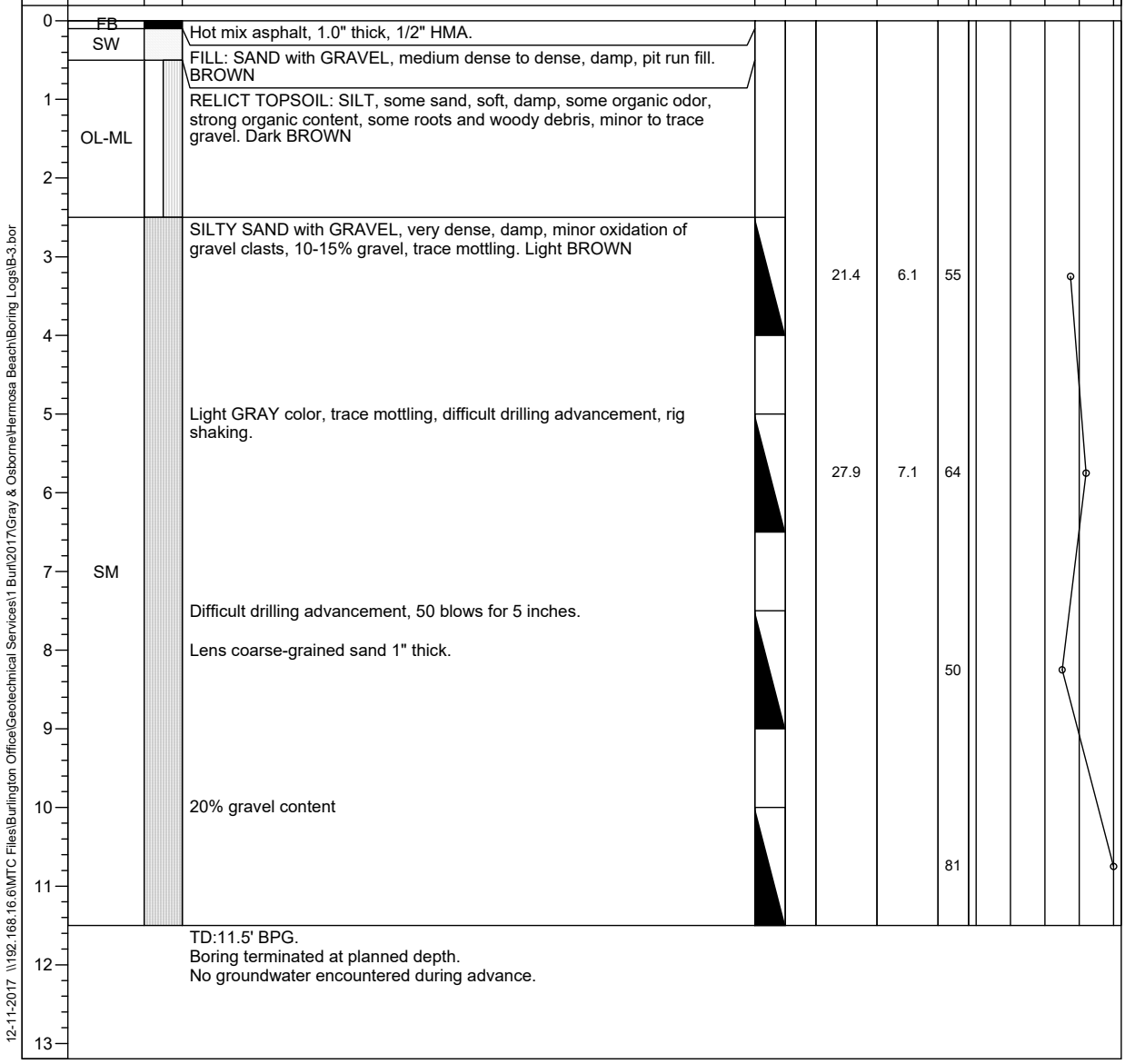
Hermosa Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/18/17
Date Completed : 10/18/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 78th Place NW, 122' E of 42nd Dr NW, 4' N of pavement egde
Logged By : KP/CD



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755 Chrysler Drive
Burlington, WA

Log of Boring B-4

(Page 1 of 1)

Hermosa Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/19/17
Date Completed : 10/19/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 79th Place NW, 315' E of 42nd Dr NW, 4' N of pavement egde
Logged By : KP/CD

Depth in Feet	USCS	DESCRIPTION	Blow Count
0	FB	Hot mix asphalt, 1.5" thick, 1/2" HMA.	
	SW	FILL: SAND with GRAVEL, medium dense to dense, damp, pit run fill. BROWN	
1	ML	SANDY SILT with GRAVEL, stiff to very stiff, dry, some organic content, strong organic content, strong oxidation, reworked native soil. ORANGE BROWN	
2		SANDY SILT, some gravel, hard, dry, mod to strong oxidation, 10% gravel. BROWN ORANGE	
3		Moderate recovery, transitions to damp, scattered mottling, gravel content increases, 50 blows for 6 inches.	50
4		Color change to light BROWN, soils logged from cuttings, 15-20% gravel.	
		Driiling advances with difficulty, rig shaking.	
5	ML	Trace recovery, difficult to advance split spoon sampler, 50 blows for 2 inches, 25-30% gravel.	50
6		Color transitions to GRAY.	
7		50 blows for 5 inches, 20% gravel.	50
8		TD: 8.1' BPG. Boring terminated due to hard conditions. No groundwater encountered during advance.	
9			
10			
11			
12			
13			

Samples | Water Level | % Finer than #200 | % Moisture | Blow Count | Blow Count Graph (0 20 40 60 80)

12-12-2017 \\192.168.16.6\MTC Files\Burlington Office\Geotechnical Services\1 Burl\2017\Gray & Osborne\Hermosa Beach\Boring Logs\B-4.bor

Materials Testing and Consulting
755 Chrysler Drive
Burlington, WA

Log of Boring B-5

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Hermosa Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/19/17
Date Completed : 10/19/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 79th Place NW, 91' E of 42nd Dr NW, 3.5' N of pavement egde
Logged By : KP/CD

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Water Level	% Finer than #200	% Moisture	Blow Count
0	FB		Hot mix asphalt, 1.5" thick, 1/2" HMA.					
0	SW		FILL: SAND with GRAVEL, dense, dry, pit run fill. BROWN					
1	ML		SANDY SILT, some gravel, stiff to very stiff, dry to damp, some roots, strongly oxidized, reworked native soil. ORANGE BROWN					
3	SM		SILTY SAND with GRAVEL, very dense, dry & powdery, some oxidation, 25% gravel, difficult drilling advance. Light BROWN to GRAY			18.0	3.0	73
5	SM		Poor recovery, difficult drilling advance, 50 blows for 6 inches, 20% gravel, color grades to GRAY					50
7	SM-ML		SILTY SAND to SANDY SILT, some gravel, dense/very stiff very dense/hard, damp, 10% gravel. Light GRAY					46
10	ML		SANDY SILT with GRAVEL, hard, damp, 15-20% gravel content. Light to medium GRAY					92
12			TD:11.5' BPG. Boring terminated at planned depth. No groundwater encountered during advance.					

Blow Count Graph: 0 20 40 60 80

12-12-2017 \\192.168.16.6\MTC Files\Burlington Office\Geotechnical Services\1 Bur\2017\Gray & Osborne\Hermosa Beach\Boring Logs\B-5.bor

Materials Testing and Consulting
755 Chrysler Drive
Burlington, WA

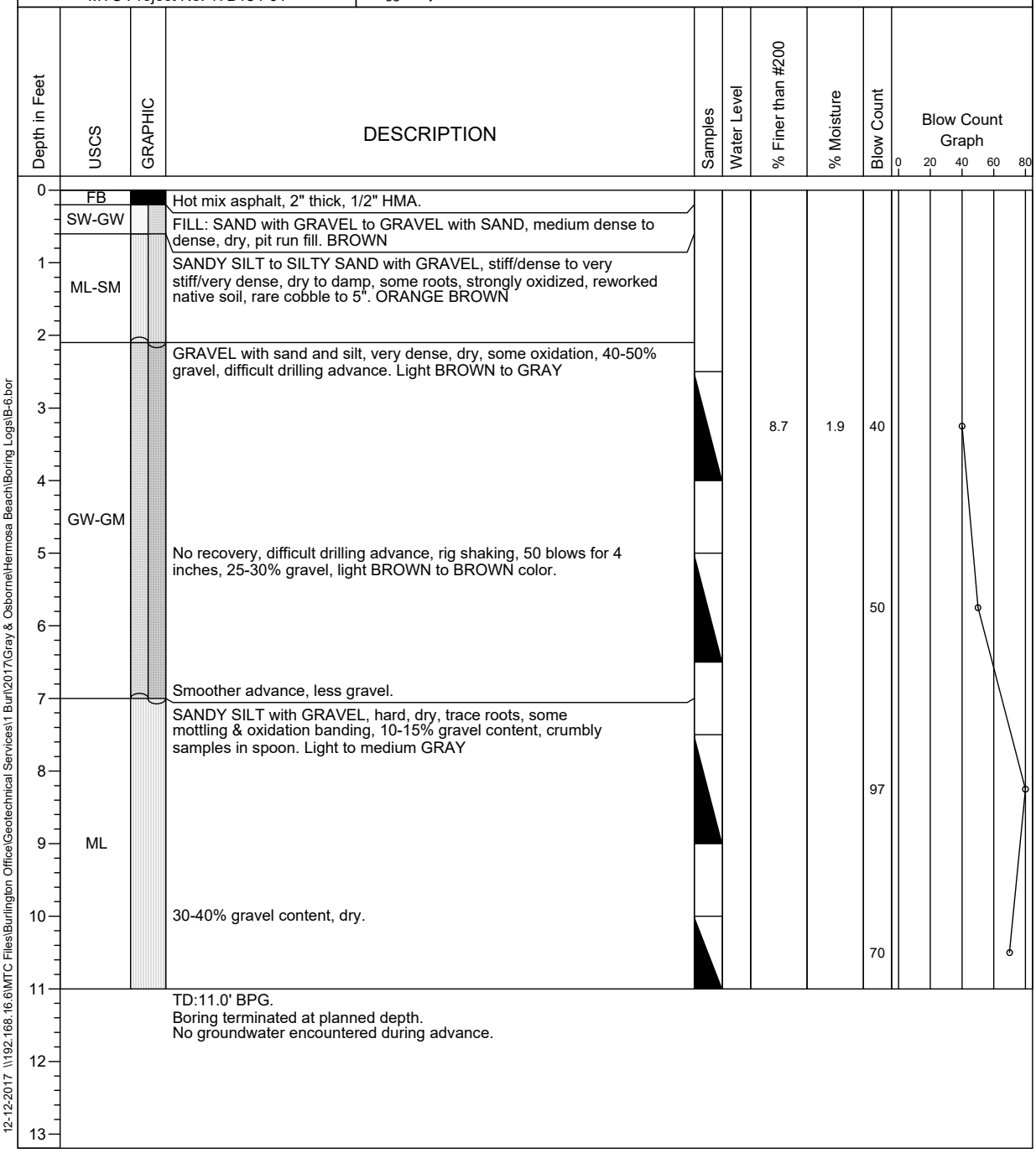
Log of Boring B-6

(Page 1 of 1)

Hermosa Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/19/17
Date Completed : 10/19/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 42nd Dr NW, 244' S of Marine Dr NW, 1.5' E of pavement egde
Logged By : KP/CD



Materials Testing and Consulting
755 Chrysler Drive
Burlington, WA

Log of Boring B-7

(Page 1 of 1)

Hermosa Beach Geotechnical Study
42nd Drive NW
Tulalip, WA

MTC Project No. 17B184-01

Date Started : 10/19/17
Date Completed : 10/19/17
Sampling Method : Split Spoon 2.5 and 5-ft. intervals
Location : 42nd Dr NW, 553' S of Marine Dr NW, 2' E of pavement egde
Logged By : KP/CD

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Water Level	% Finer than #200	% Moisture	Blow Count	Blow Count Graph (0 20 40 60 80)
0	FB		Hot mix asphalt, 2" thick, 1/2" HMA.						
	SW-GW		FILL: SAND with GRAVEL to GRAVEL with SAND, medium dense to dense, dry, pit run fill. BROWN						
1	ML		SANDY SILT with GRAVEL, stiff to very stiff, dry to damp, some roots, reworked native soil, rare boulder to 12". GRAY BROWN						
2									
3	SM		SILTY SAND with GRAVEL, very dense, dry & powdery, trace roots, some oxidation of gravel clasts. Light GRAY BROWN			23.7	3.6	33	
4			Gravel content 20%, logged from cuttings.						
5			No recovery, sampler bouncing, difficult advance, continues to 8.0' BPG, 50 blows for 1".						
6								50	
7	SM-ML		SILTY SAND to SANDY SILT with GRAVEL, very dense/hard, damp, Medium GRAY Very poor recovery, 50 blows for 2".						
8								50	
9									
10			No recovery, rock in shoe, hard/very dense conditions, 50 blows for 3".						
11			TD:11.0' BPG. Boring terminated at planned depth. No groundwater encountered during advance.					50	
12									
13									

CBR Log of KDCP-1

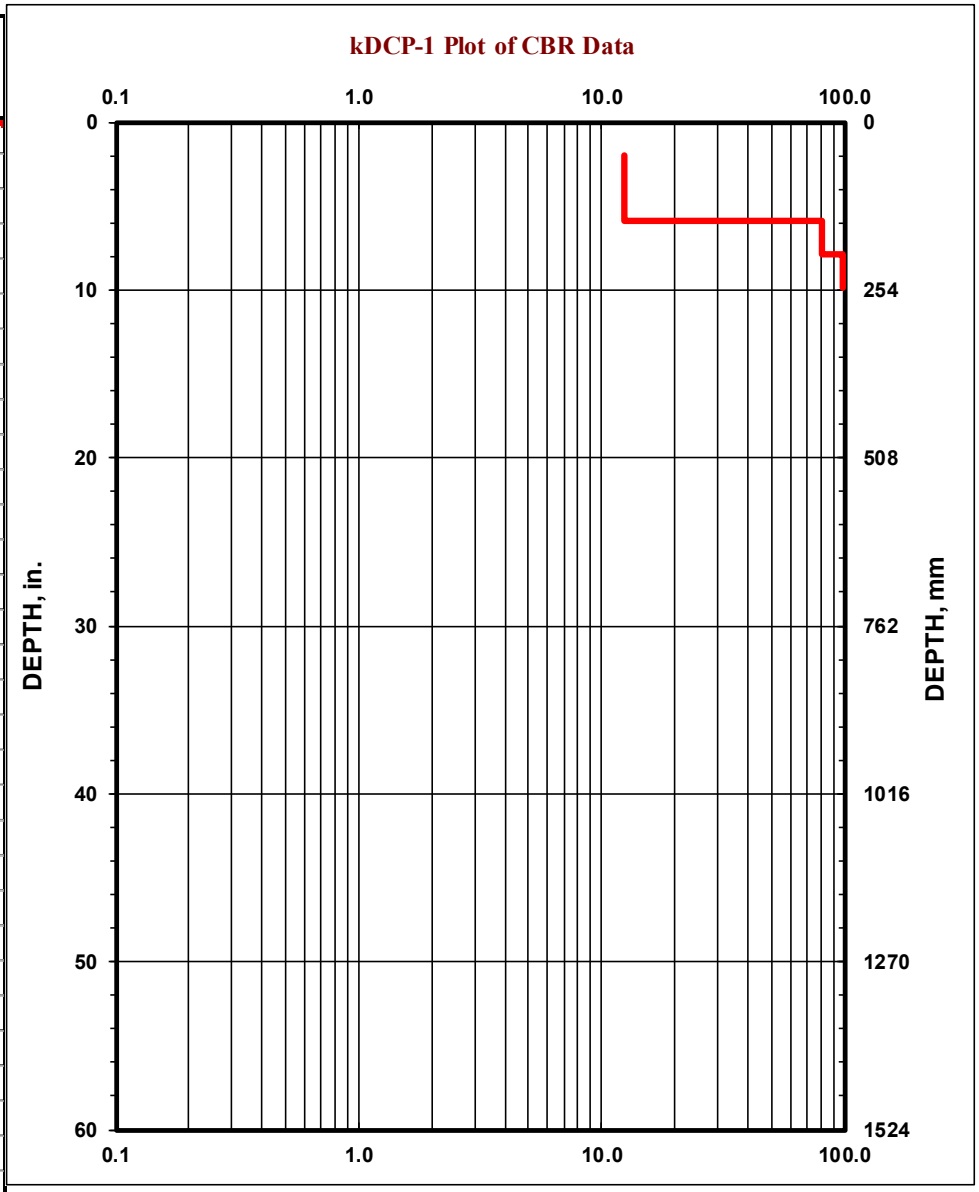
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 38' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
4	50	1
3	100	1
3	150	1
16	200	1
20	250	1



CBR Log of KDCP-2

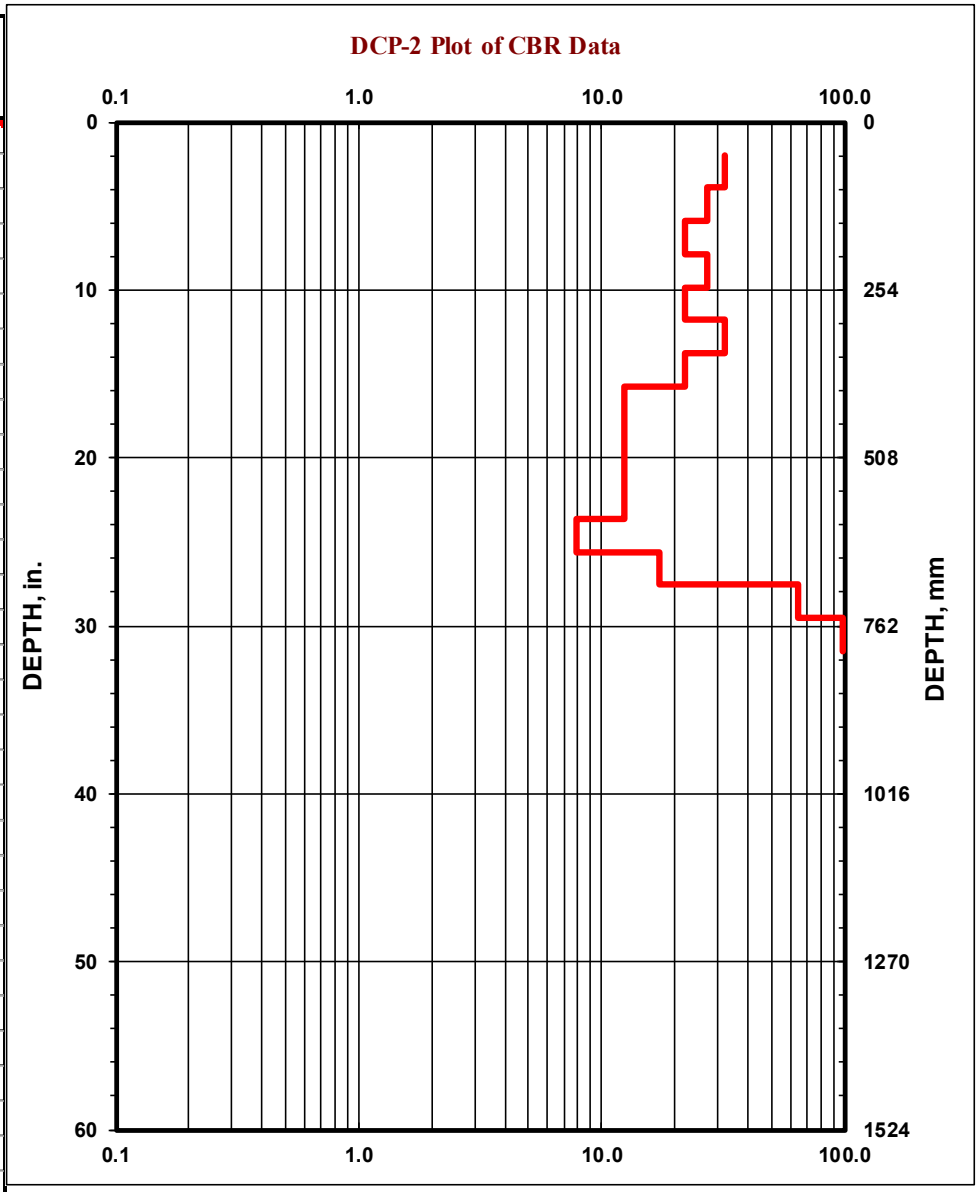
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 88' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
5	50	1
7	100	1
6	150	1
5	200	1
6	250	1
5	300	1
7	350	1
5	400	1
3	450	1
3	500	1
3	550	1
3	600	1
2	650	1
4	700	1
13	750	1
20	800	1



CBR Log of KDCP-3

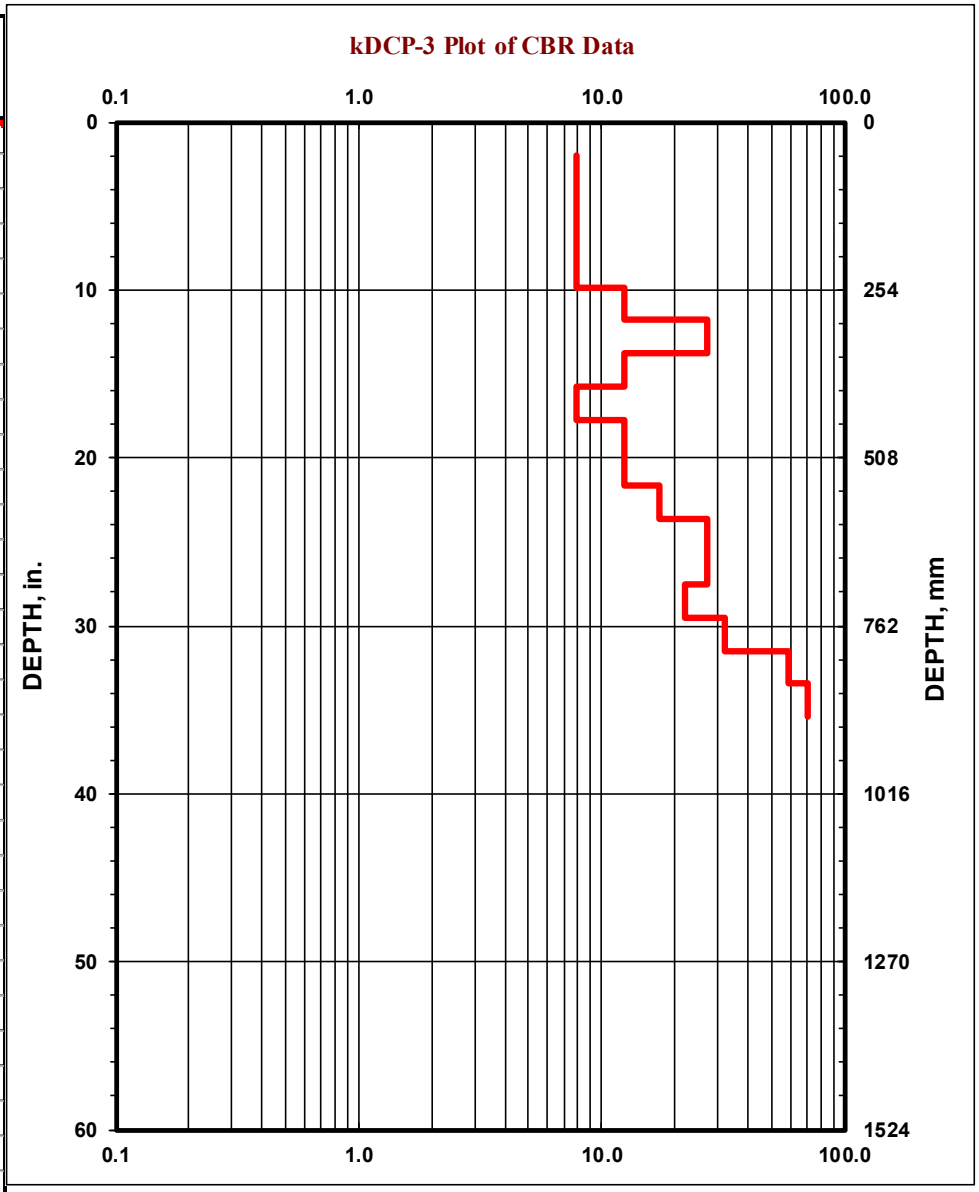
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 138' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
2	50	1
2	100	1
2	150	1
2	200	1
2	250	1
3	300	1
6	350	1
3	400	1
2	450	1
3	500	1
3	550	1
4	600	1
6	650	1
6	700	1
5	750	1
7	800	1
12	850	1
14	900	1



CBR Log of KDCP-4

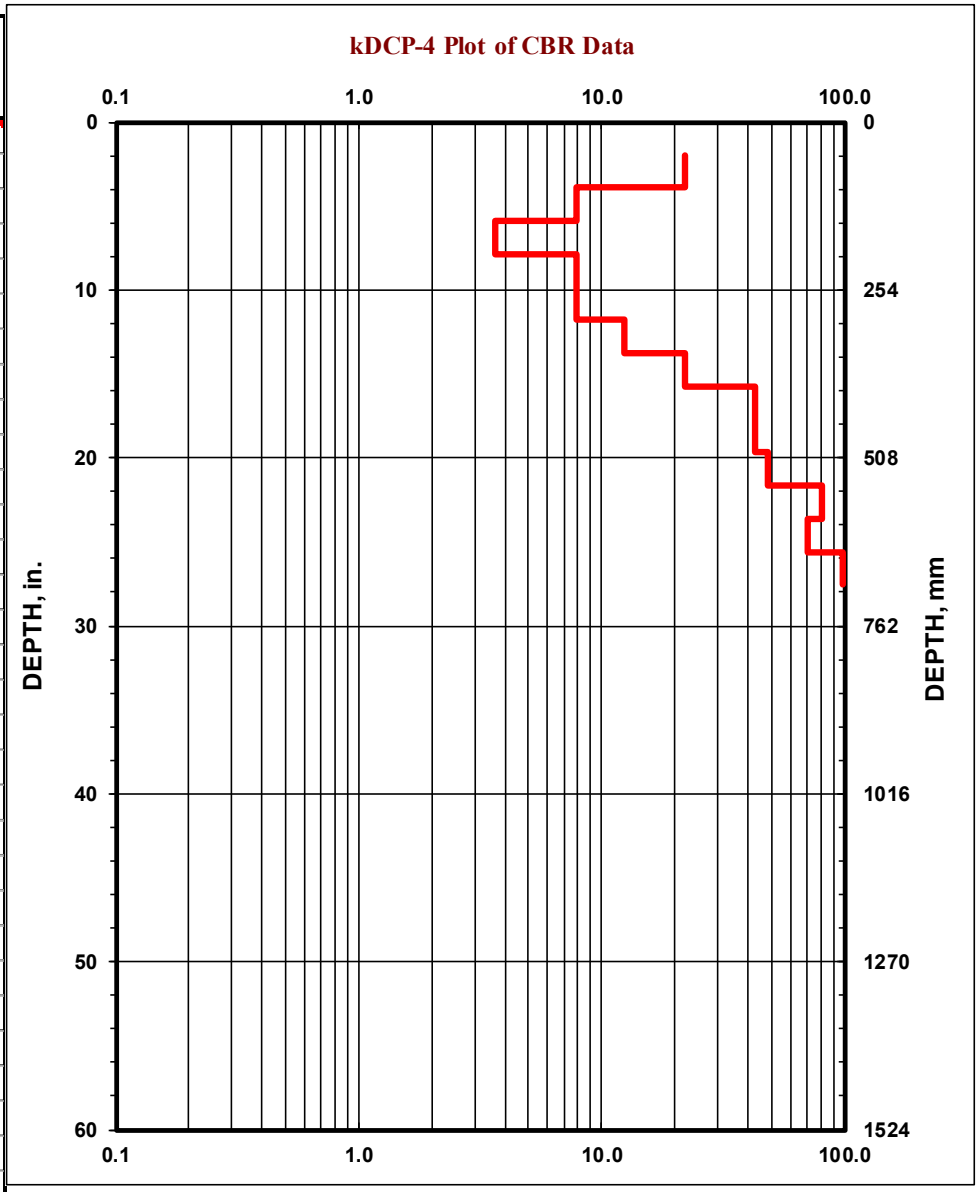
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 237' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
8	50	1
5	100	1
2	150	1
1	200	1
2	250	1
2	300	1
3	350	1
5	400	1
9	450	1
9	500	1
10	550	1
16	600	1
14	650	1
20	700	1



CBR Log of KDCP-5

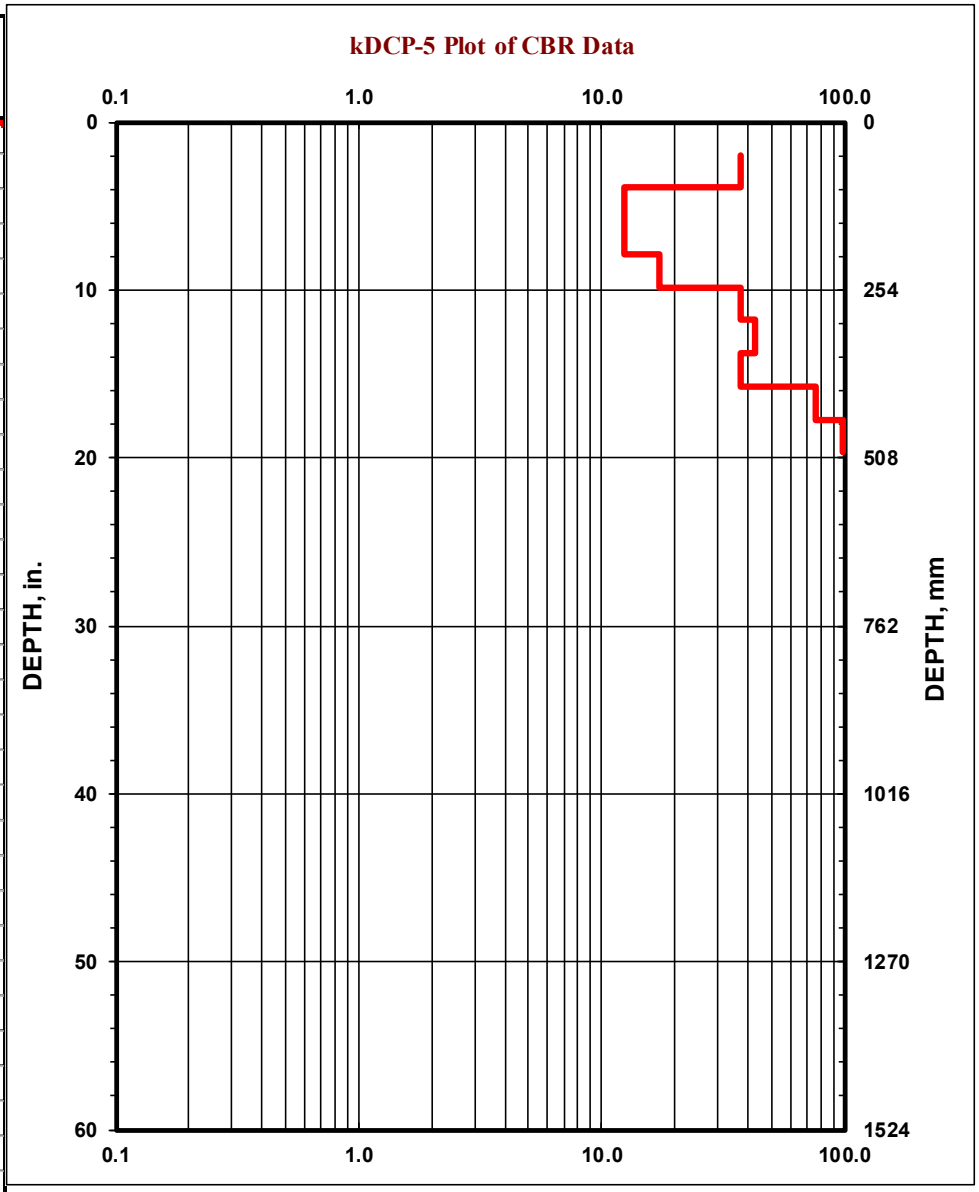
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 299' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
13	50	1
8	100	1
3	150	1
3	200	1
4	250	1
8	300	1
9	350	1
8	400	1
15	450	1
20	500	1



CBR Log of KDCP-6

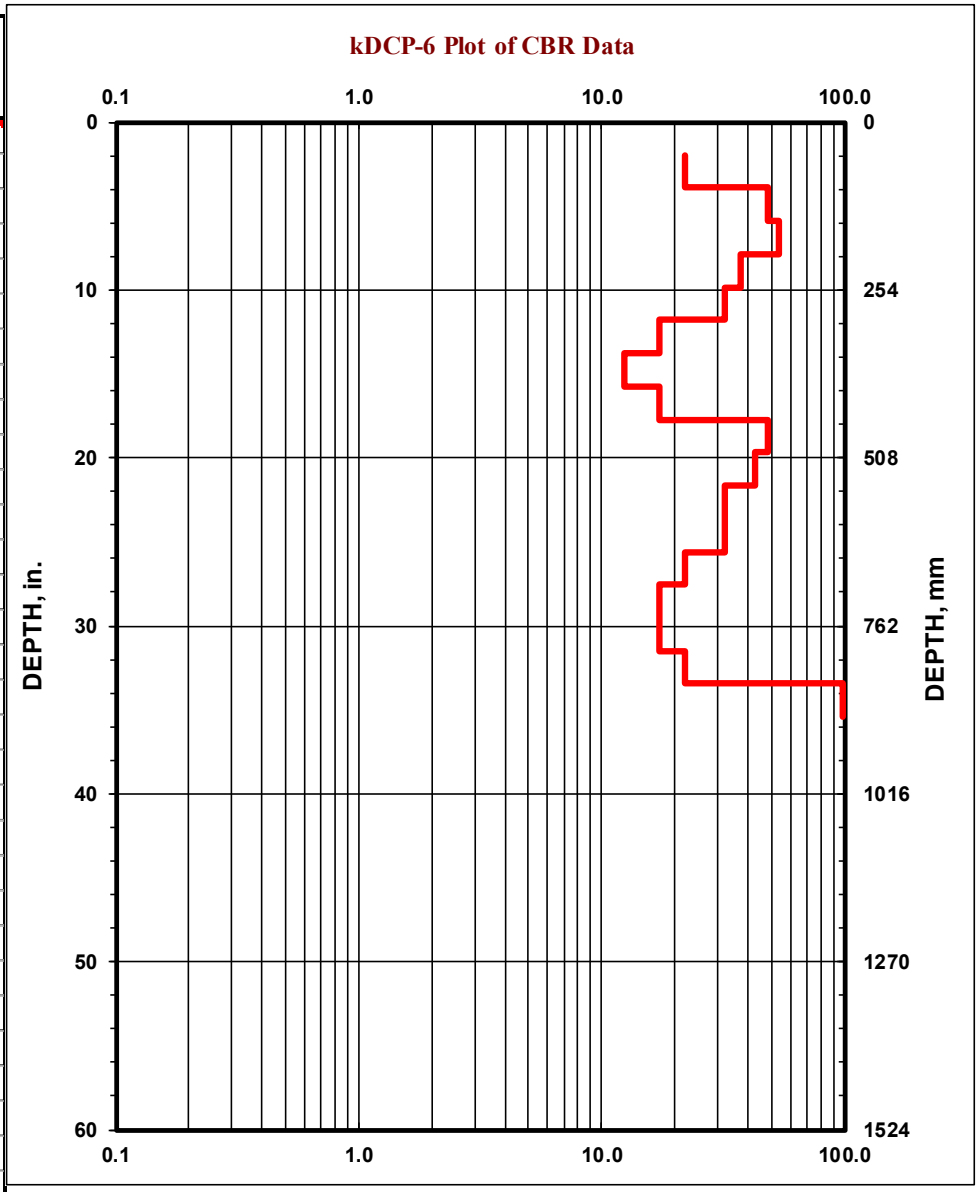
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 363' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
8	50	1
5	100	1
10	150	1
11	200	1
8	250	1
7	300	1
4	350	1
3	400	1
4	450	1
10	500	1
9	550	1
7	600	1
7	650	1
5	700	1
4	750	1
4	800	1
5	850	1
20	900	1



CBR Log of KDCP-7

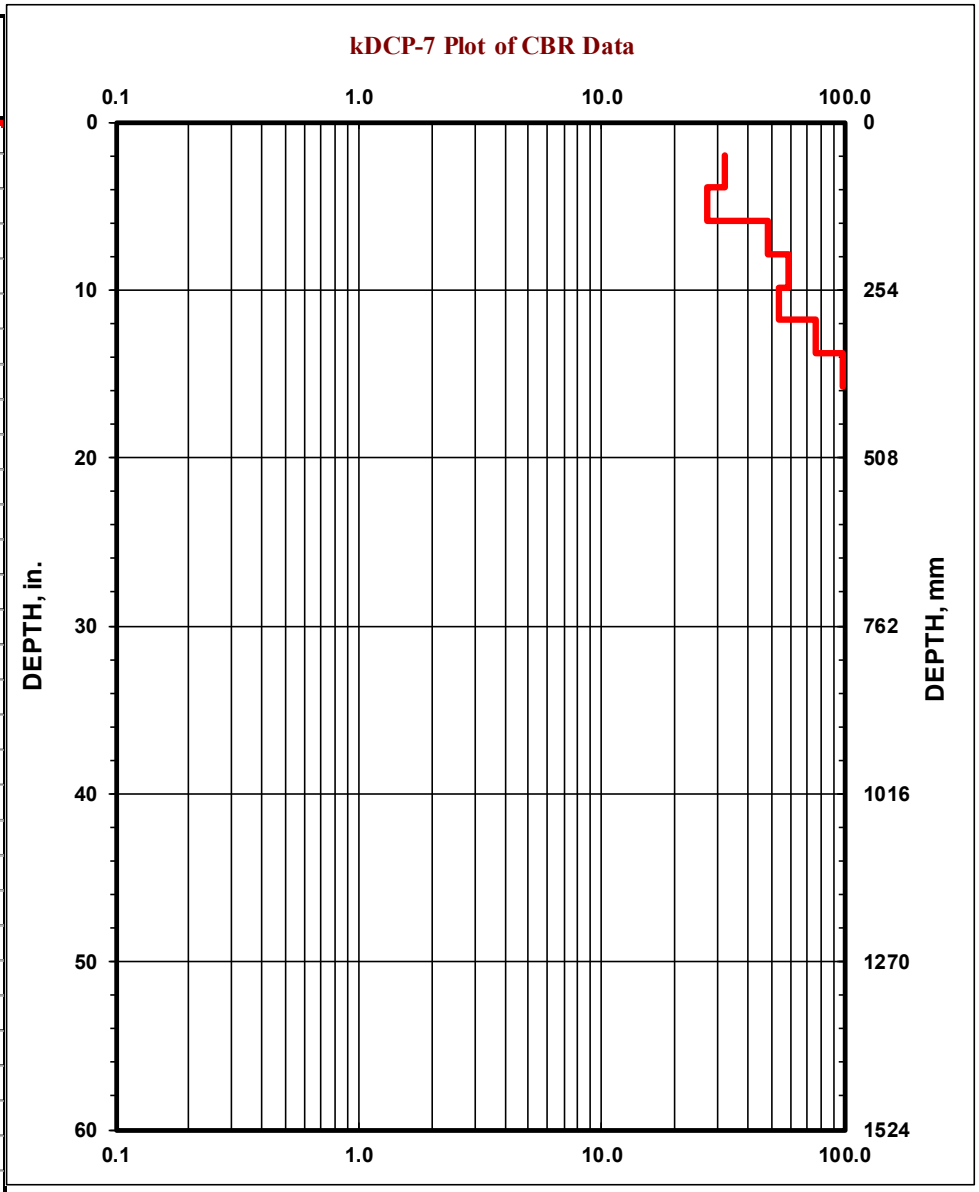
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 78th Place, 461' W of road end **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
6	50	1
7	100	1
6	150	1
10	200	1
12	250	1
11	300	1
15	350	1
20	400	1



CBR Log of KDCP-8

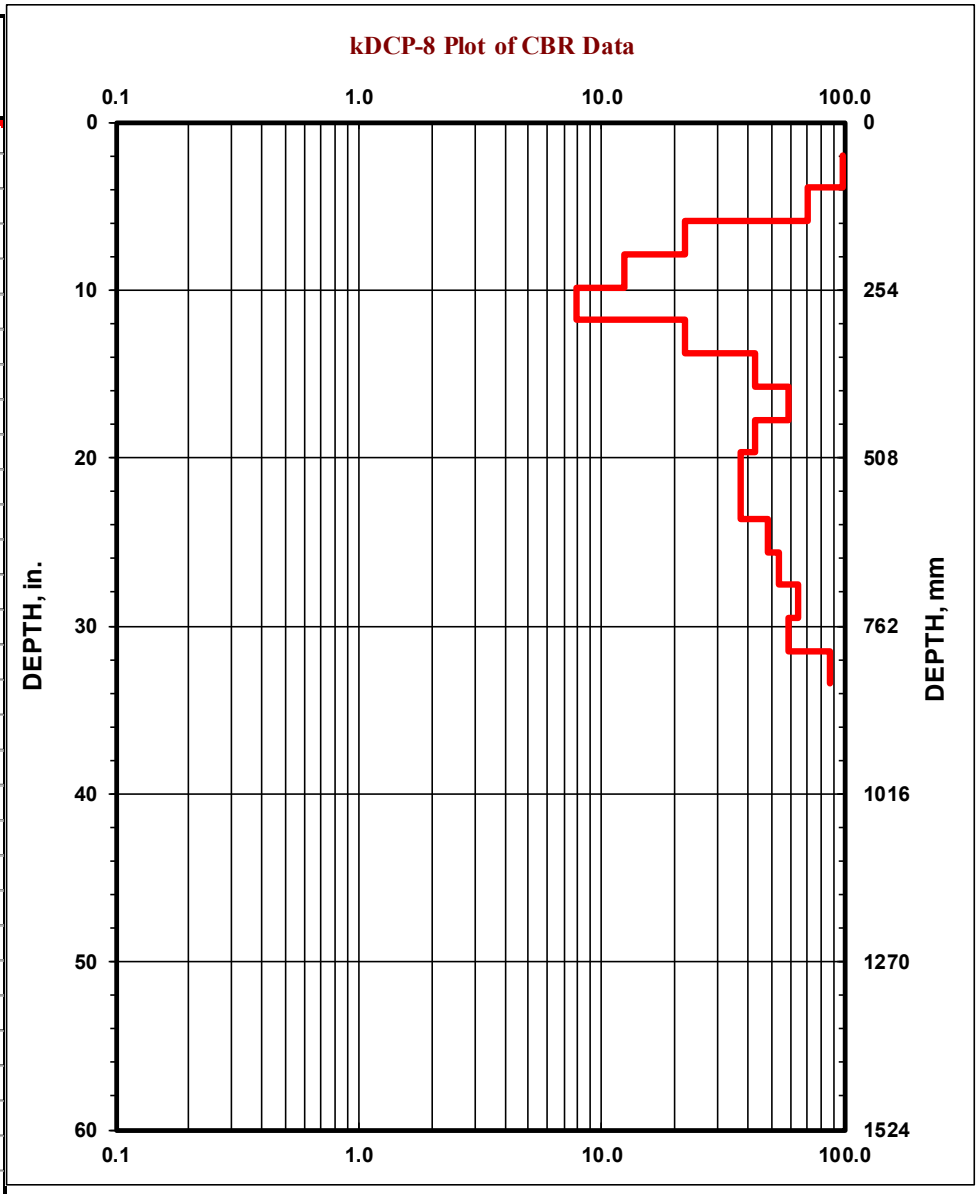
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 4' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
9	50	1
20	100	1
14	150	1
5	200	1
3	250	1
2	300	1
5	350	1
9	400	1
12	450	1
9	500	1
8	550	1
8	600	1
10	650	1
11	700	1
13	750	1
12	800	1
17	850	1



CBR Log of KDCP-9

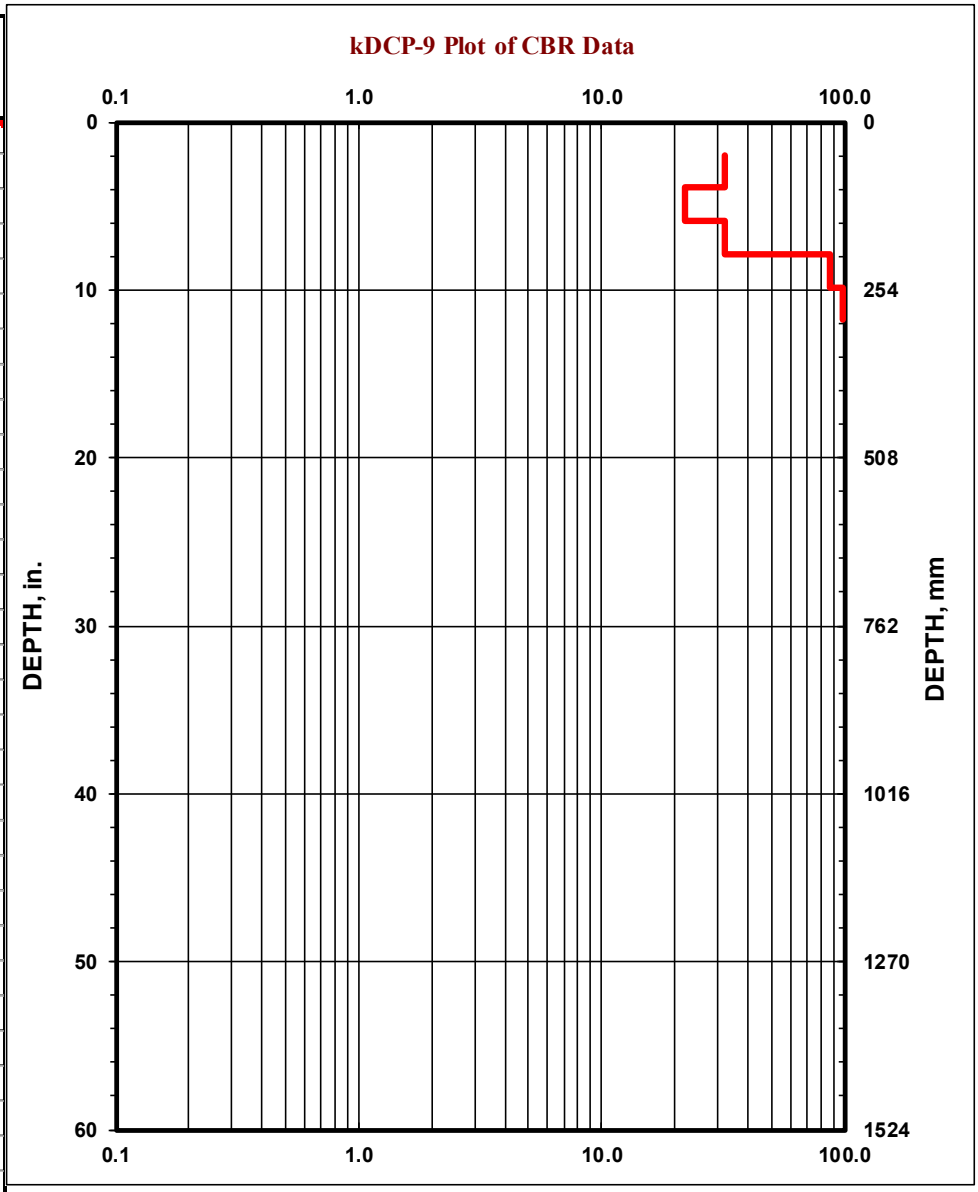
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 80' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
8	50	1
7	100	1
5	150	1
7	200	1
17	250	1
20	300	1



CBR Log of KDCP -10

Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 153' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
		1
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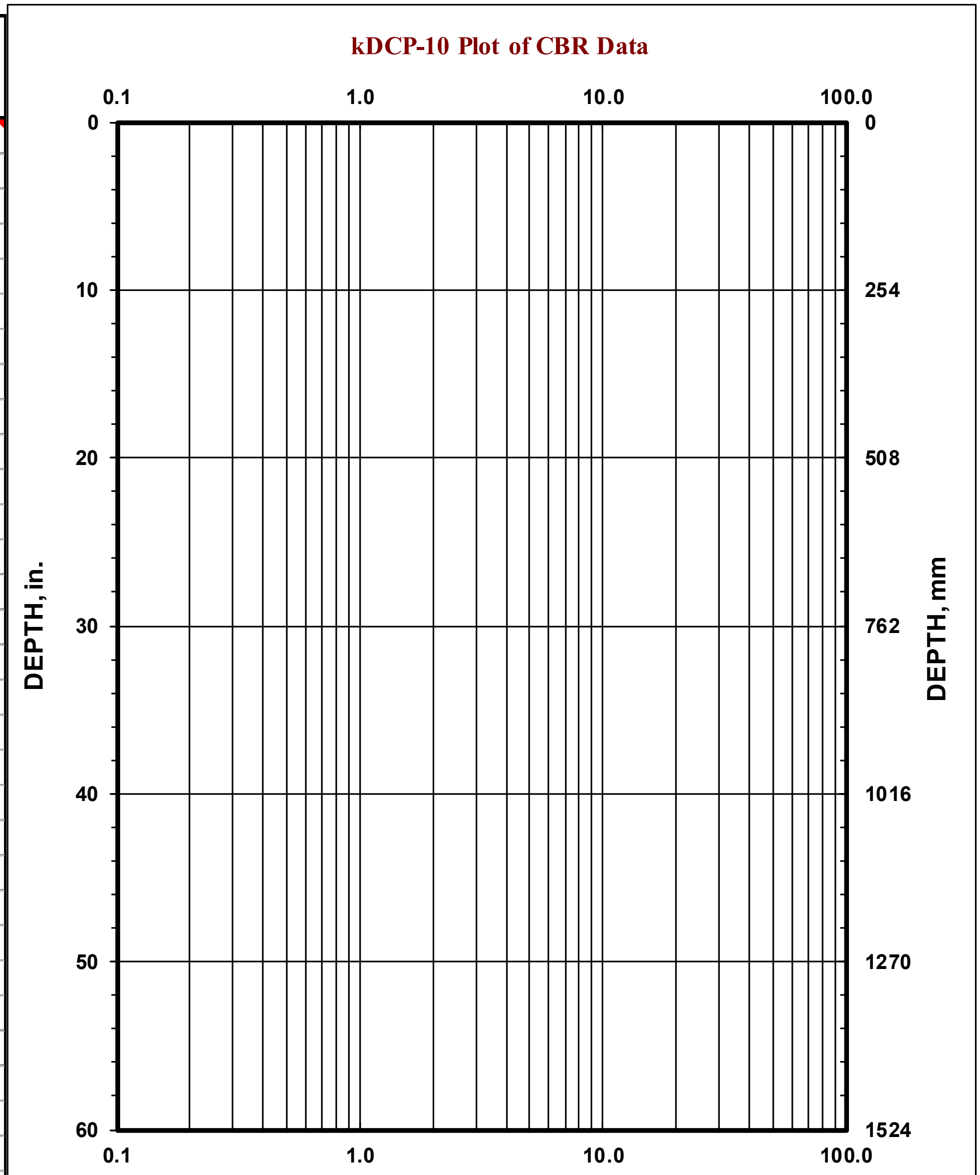
		1



CBR Log of KDCP-11

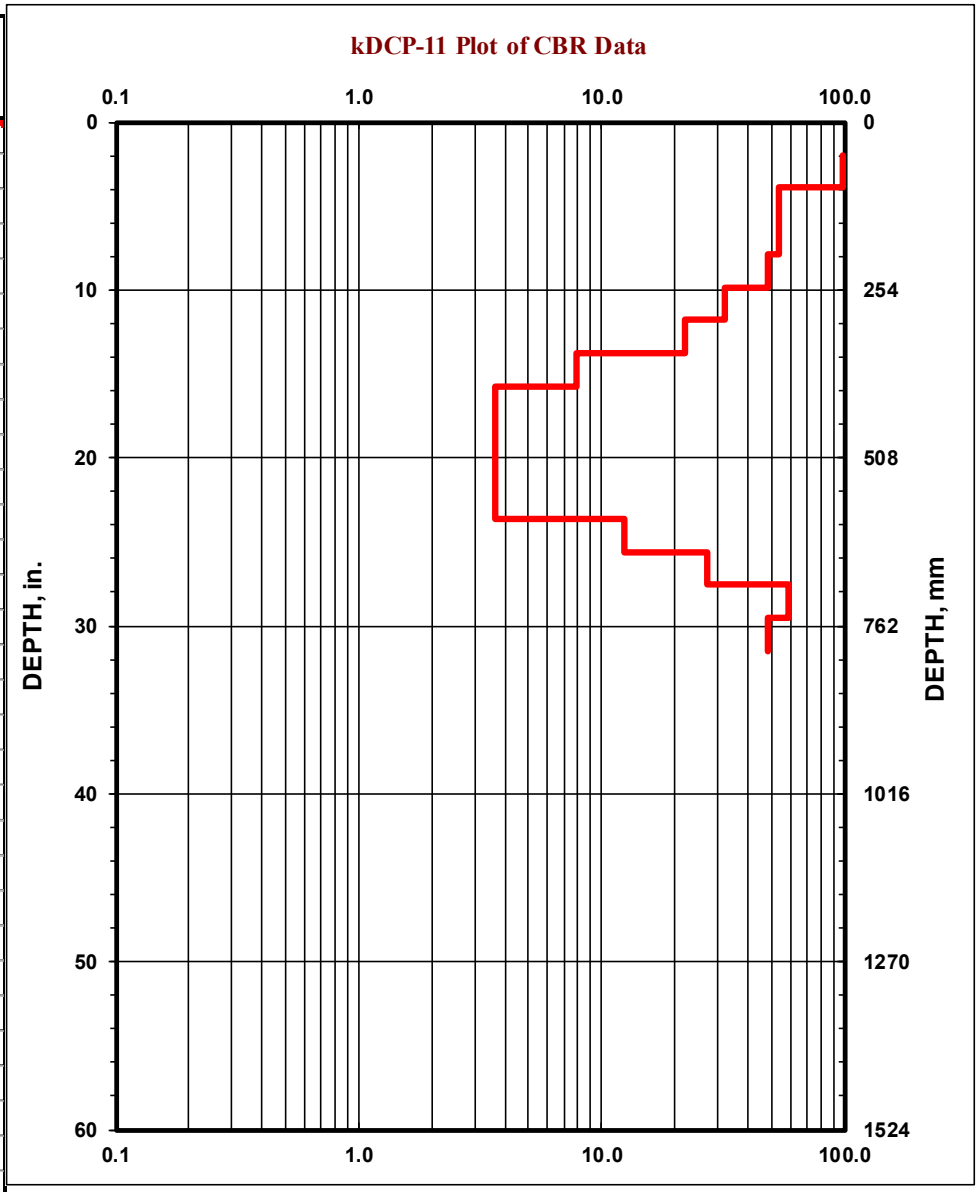
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 182' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
17	50	1
20	100	1
11	150	1
11	200	1
10	250	1
7	300	1
5	350	1
2	400	1
1	450	1
1	500	1
1	550	1
1	600	1
3	650	1
6	700	1
12	750	1
10	800	1



CBR Log of KDCP-12

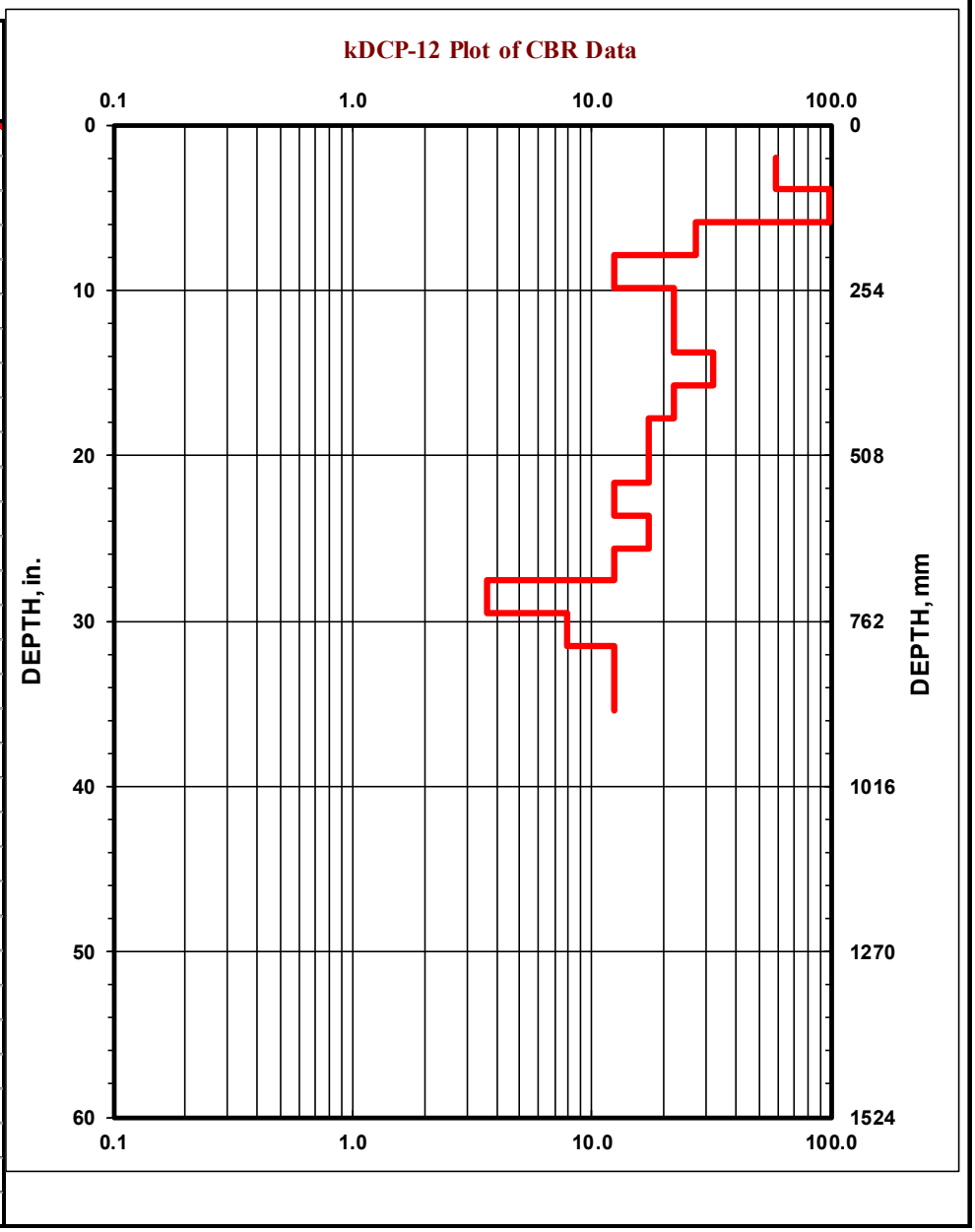
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 225' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
13	50	1
12	100	1
20	150	1
6	200	1
3	250	1
5	300	1
5	350	1
7	400	1
5	450	1
4	500	1
4	550	1
3	600	1
4	650	1
3	700	1
1	750	1
2	800	1
3	850	1
3	900	1



CBR Log of KDCP-13

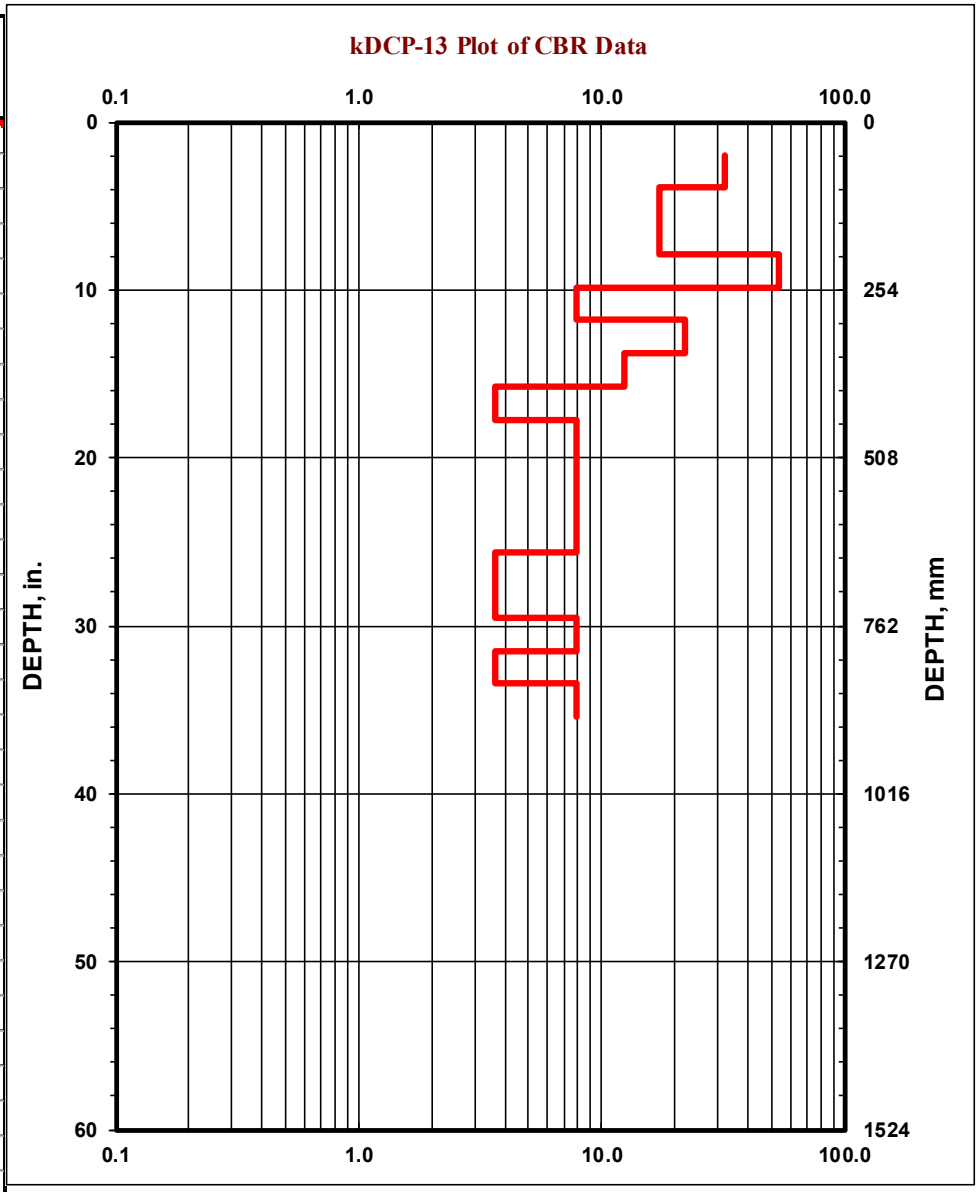
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 306' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
7	50	1
7	100	1
4	150	1
4	200	1
11	250	1
2	300	1
5	350	1
3	400	1
1	450	1
2	500	1
2	550	1
2	600	1
2	650	1
1	700	1
1	750	1
2	800	1
1	850	1
2	900	1



CBR Log of KDCP-14

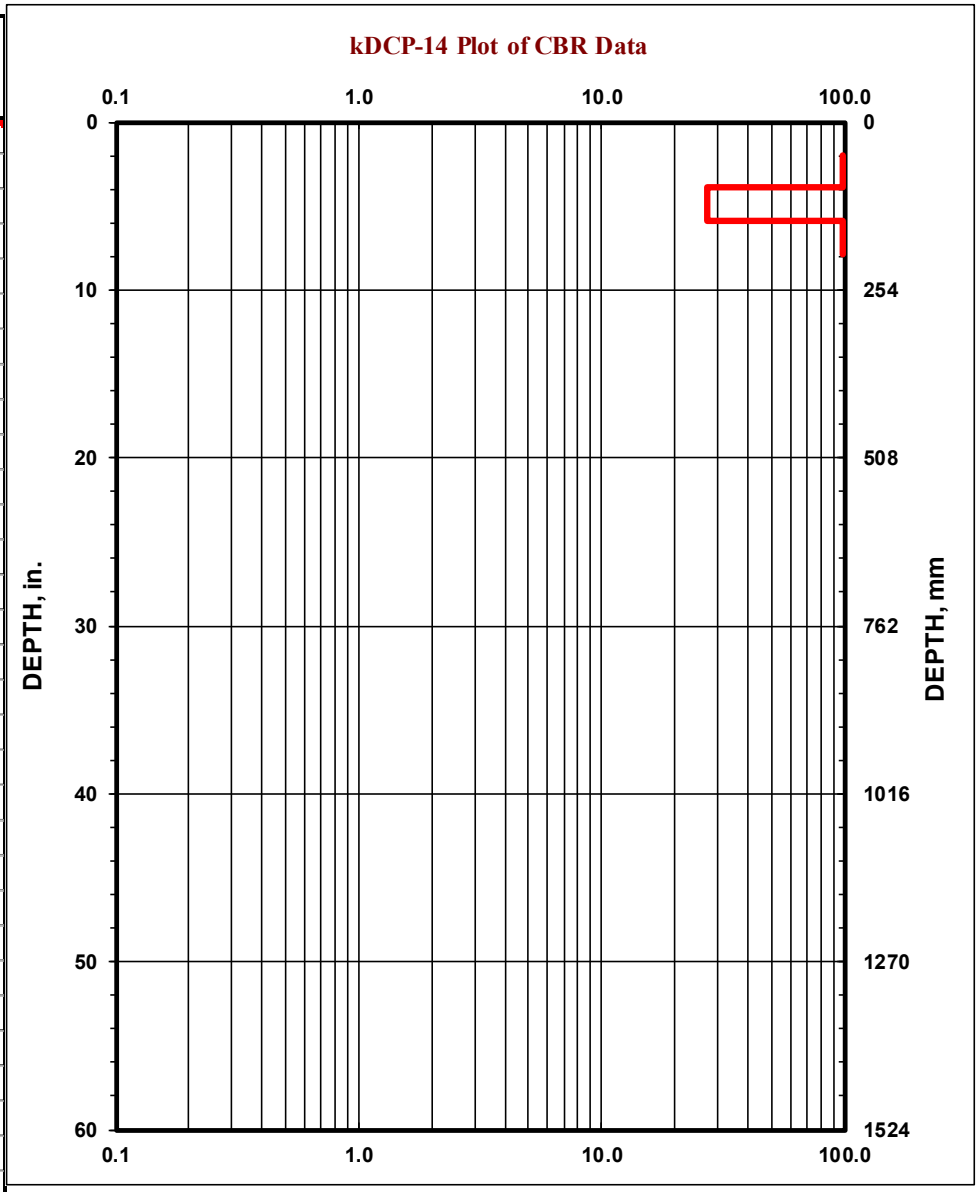
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 379' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
10	50	1
20	100	1
6	150	1
20	200	1



CBR Log of KDCP-15

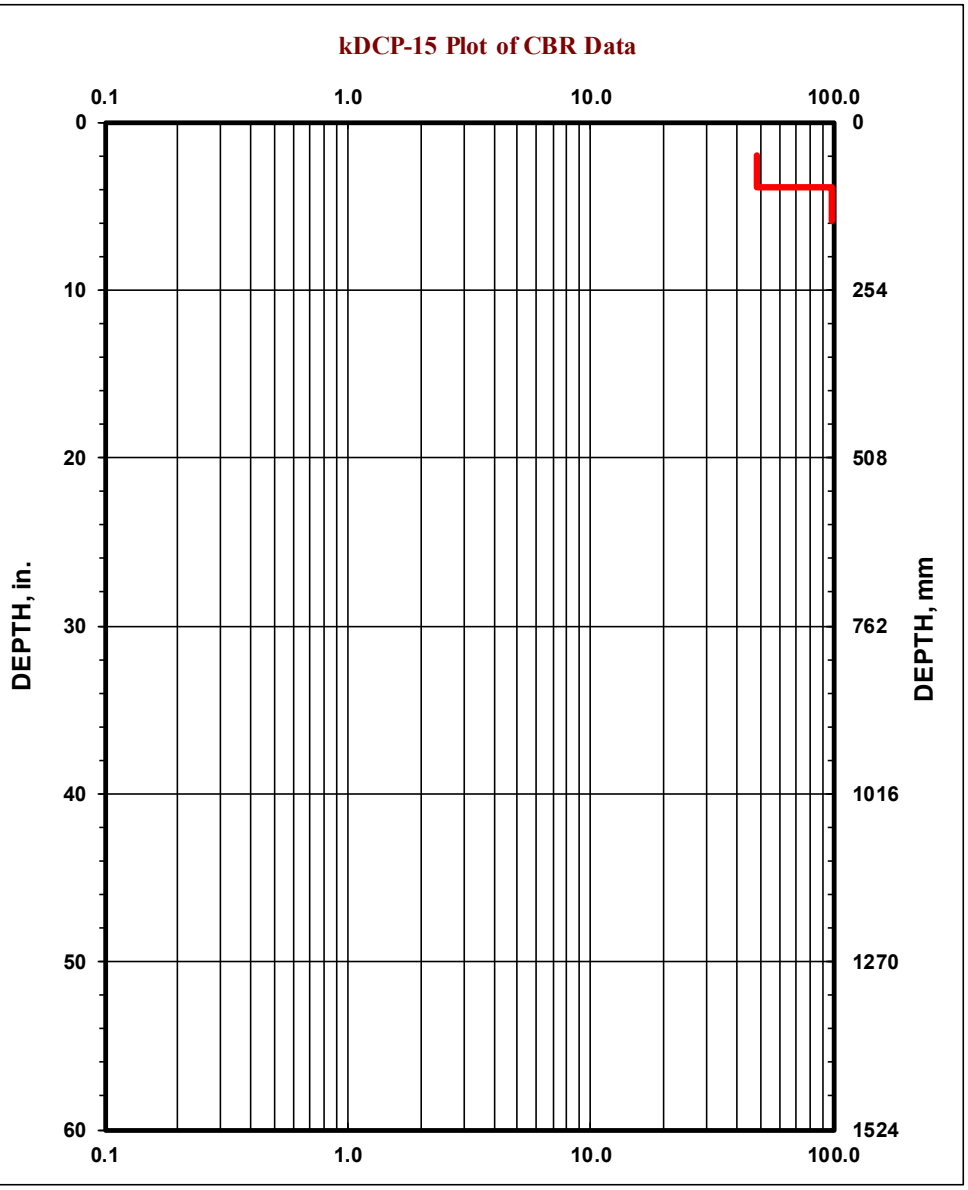
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 459' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
8	50	1
10	100	1
20	150	1



CBR Log of KDCP-16

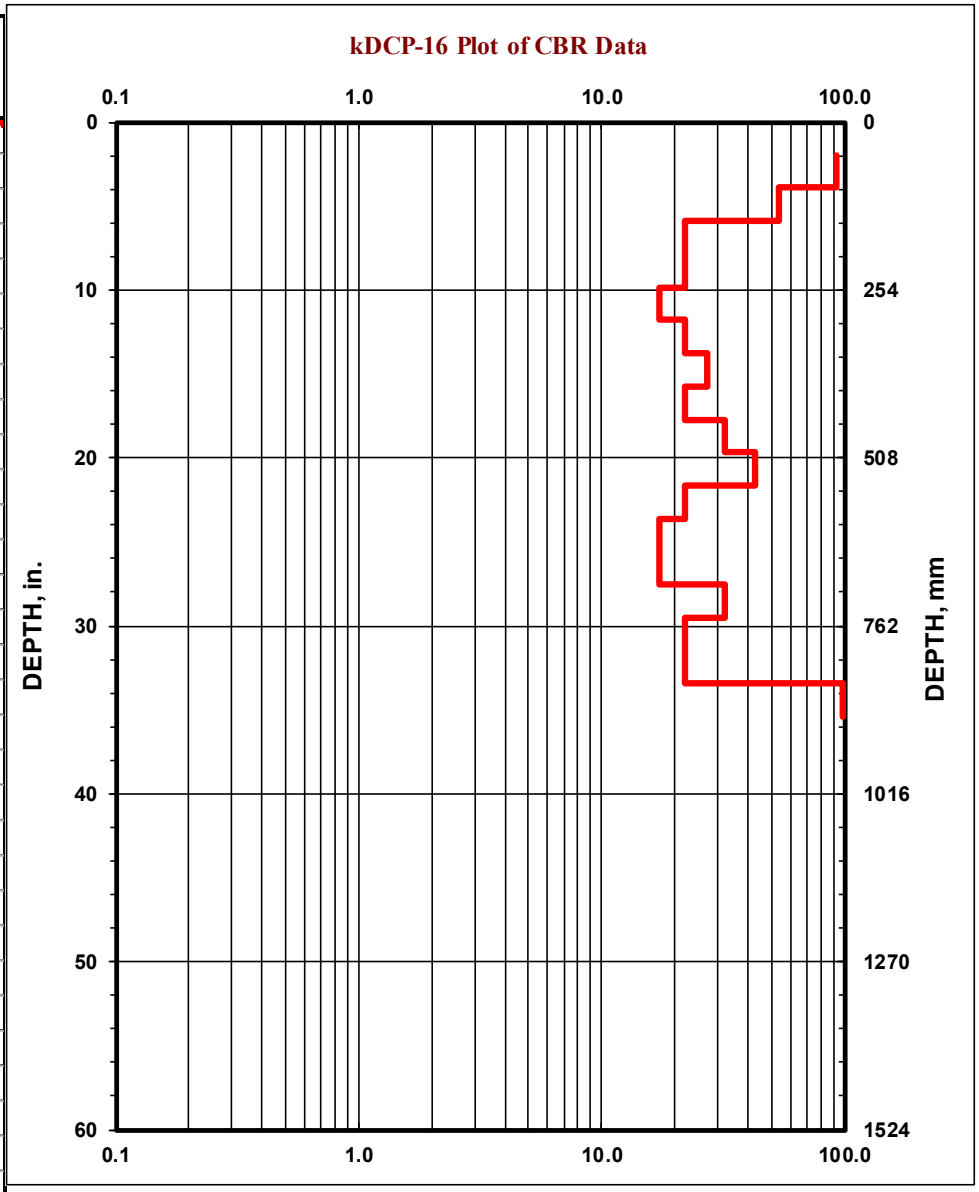
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 527' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
13	50	1
18	100	1
11	150	1
5	200	1
5	250	1
4	300	1
5	350	1
6	400	1
5	450	1
7	500	1
9	550	1
5	600	1
4	650	1
4	700	1
7	750	1
5	800	1
5	850	1
20	900	1



CBR Log of KDCP-17

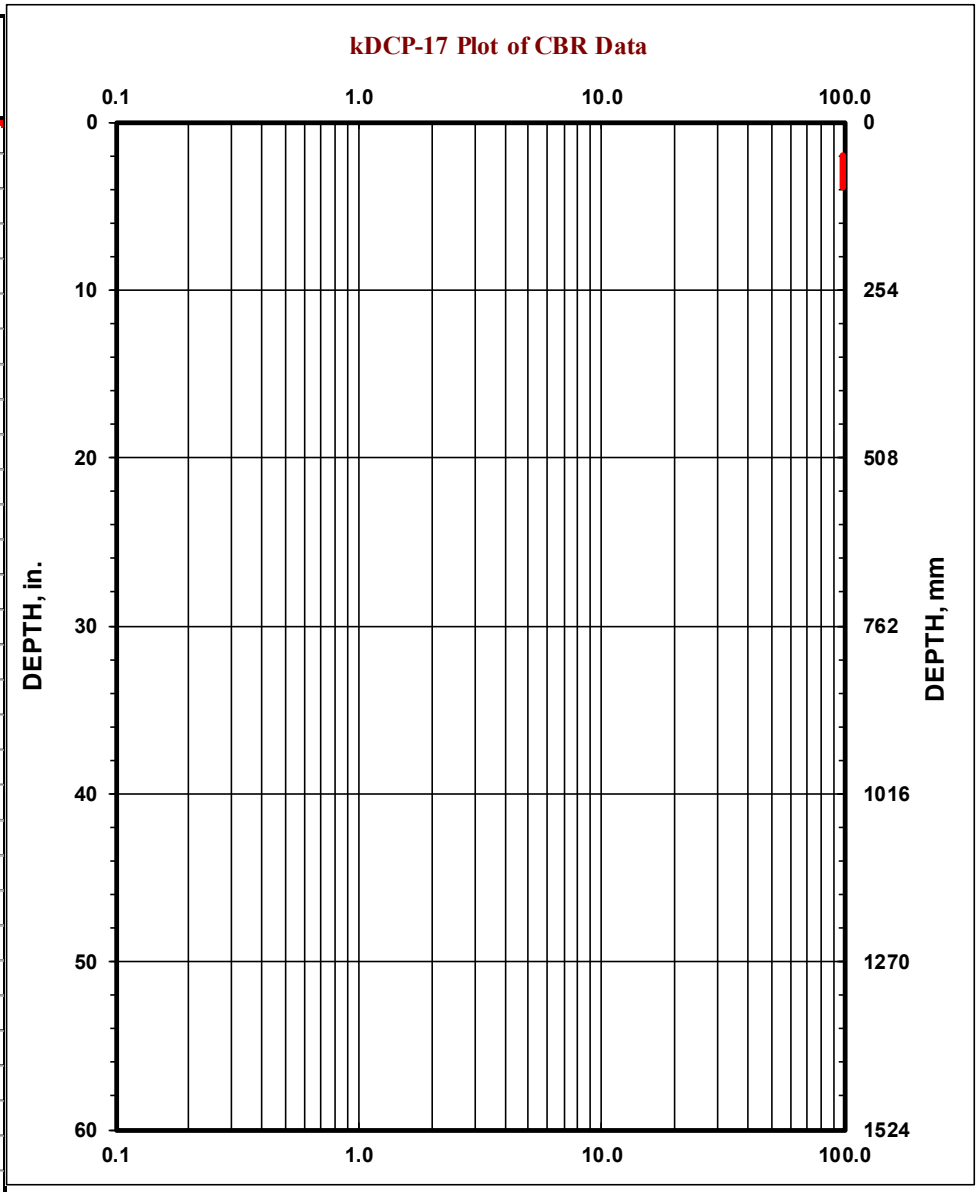
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 42nd Dr, 596' N of new pavement on 77th **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
9	50	1
20	100	1



CBR Log of KDCP-18

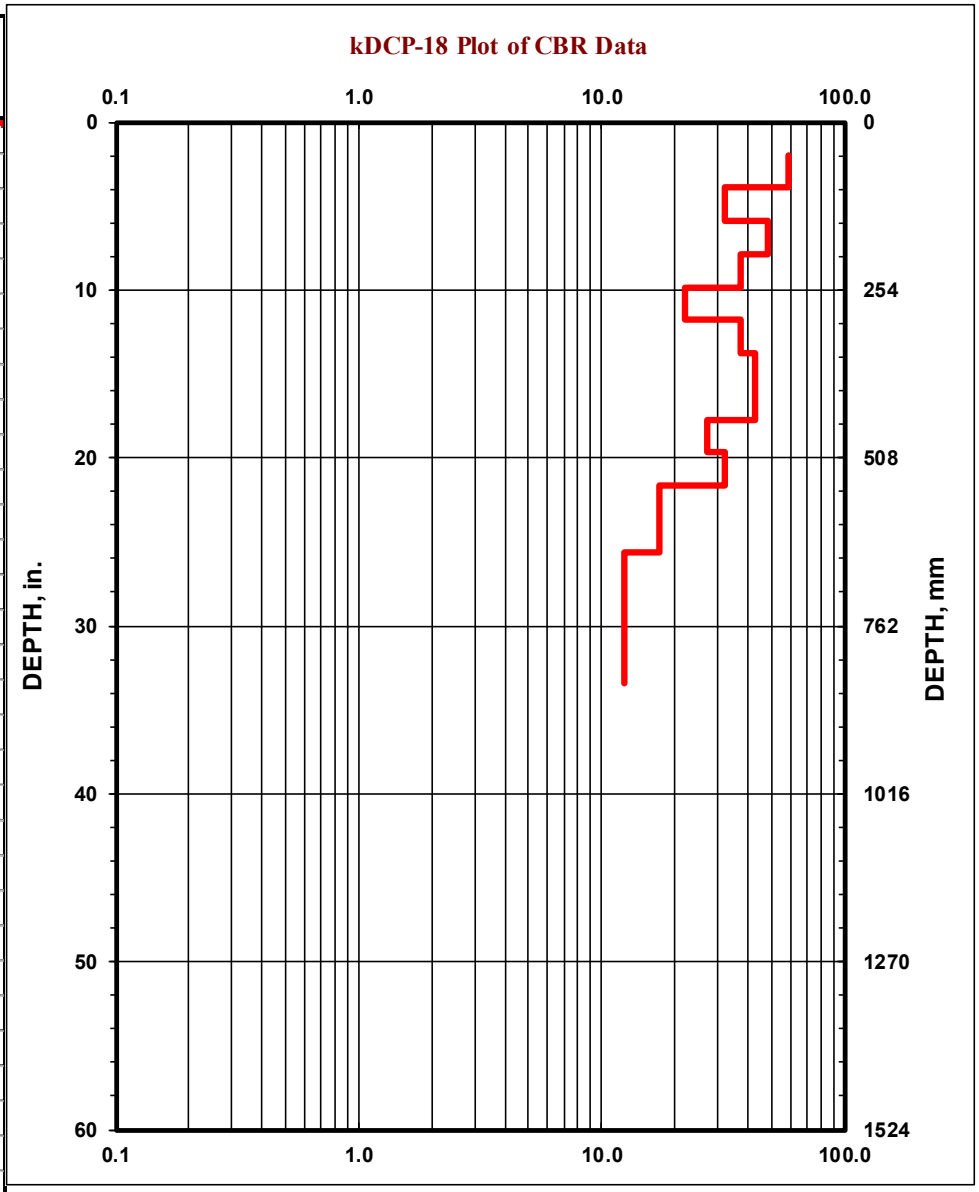
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 79th Place, 78' W of road barrier **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
5	50	1
12	100	1
7	150	1
10	200	1
8	250	1
5	300	1
8	350	1
9	400	1
9	450	1
6	500	1
7	550	1
4	600	1
4	650	1
3	700	1
3	750	1
3	800	1
3	850	1



CBR Log of KDCP-19

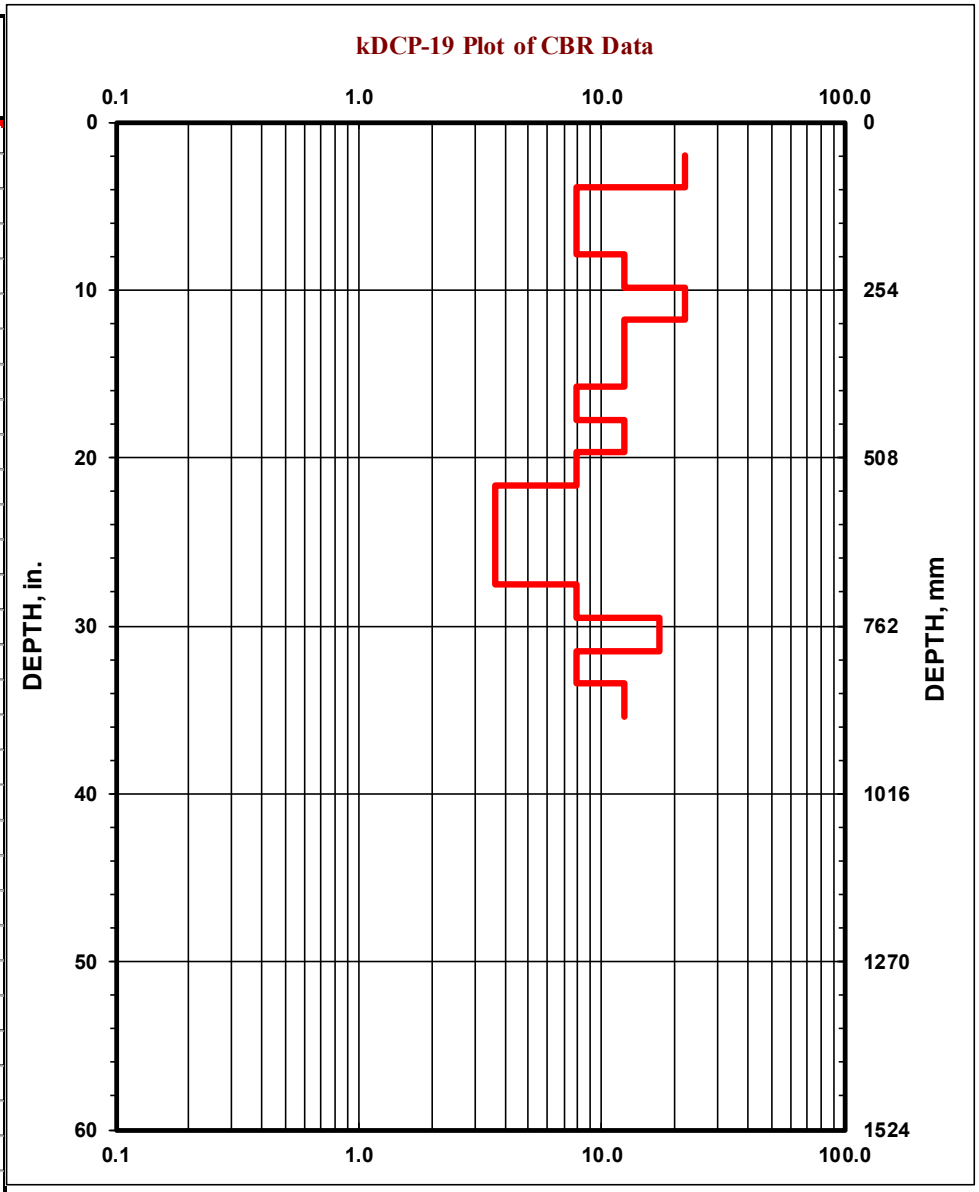
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 79th Place, 151' W of road barrier **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
6	50	1
5	100	1
2	150	1
2	200	1
3	250	1
5	300	1
3	350	1
3	400	1
2	450	1
3	500	1
2	550	1
1	600	1
1	650	1
1	700	1
2	750	1
4	800	1
2	850	1
3	900	1



CBR Log of KDCP-20

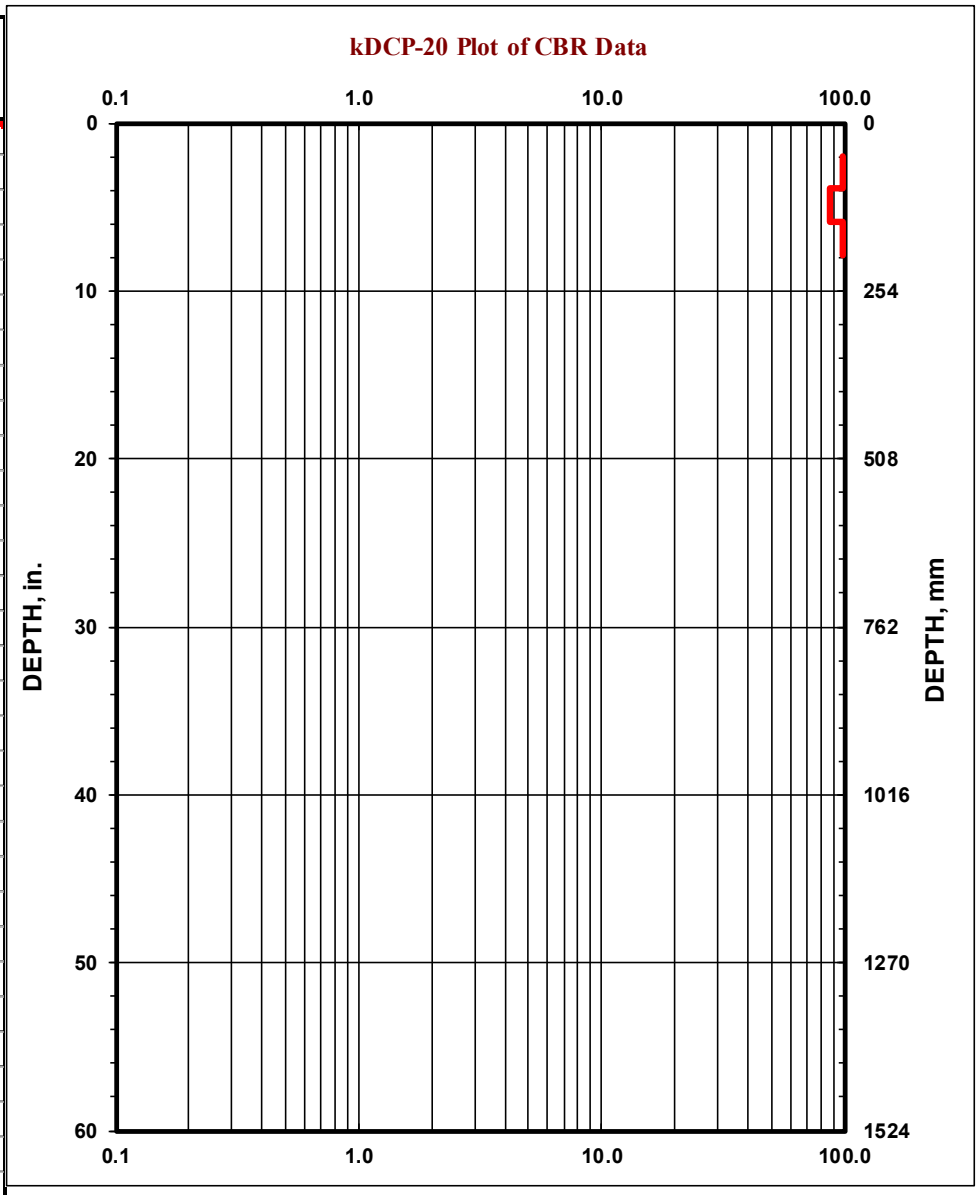
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 79th Place, 276' W of road barrier **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
20	50	1
20	100	1
17	150	1
20	200	1



CBR Log of KDCP-21

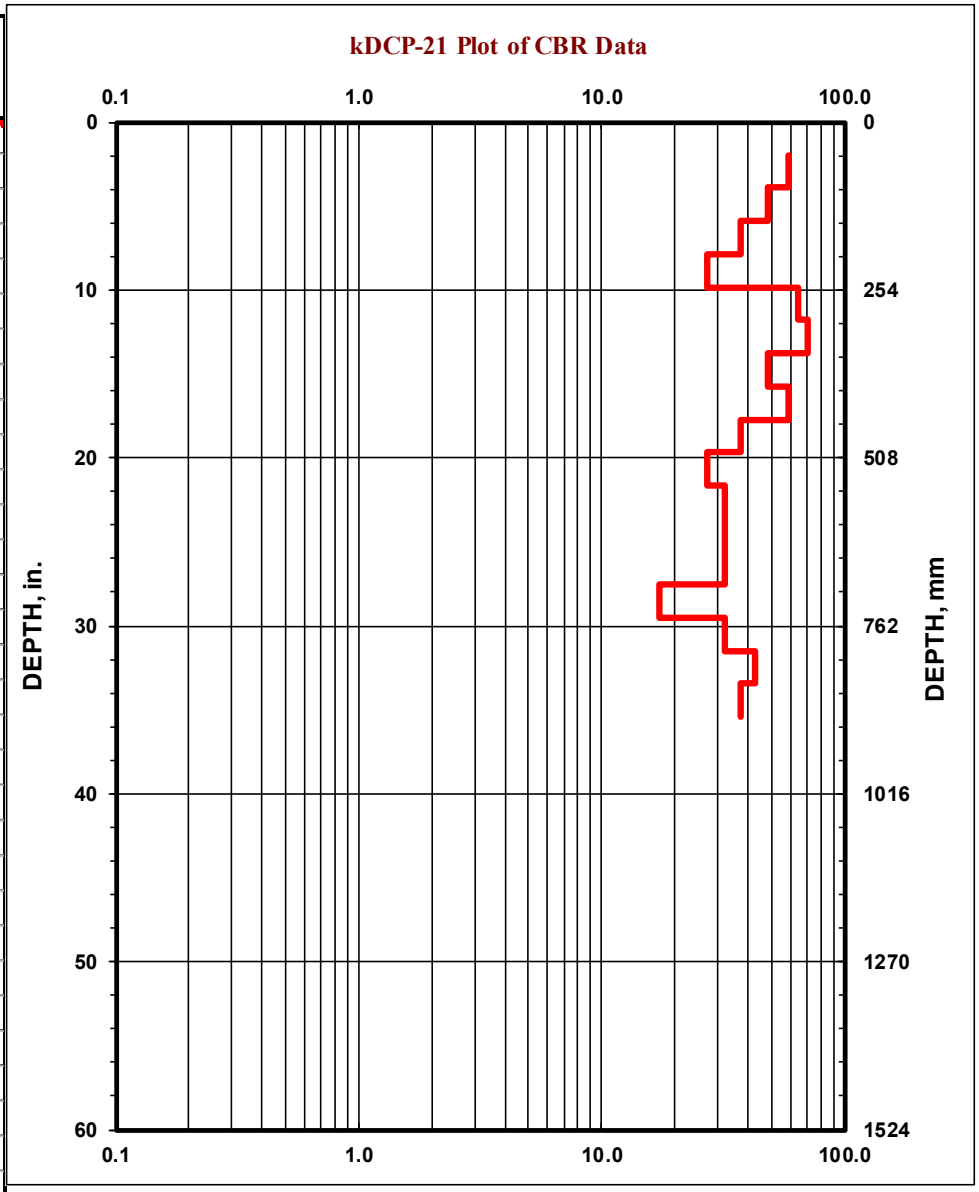
Project: *Hermosa Beach* **Date:** 1-Nov-17

Location: 79th Place, 352' W of road barrier **Soil Type(s):** SM-ML

Hammer
- ○ 10.1 lbs.
- ◉ 17.6 lbs.
- ○ Both hammers used

Soil Type
- ○ CH
- ○ CL
- ◉ All other soils

No. of Blows	Accumulative Penetration (mm)	Type of Hammer
18	50	1
12	100	1
10	150	1
8	200	1
6	250	1
13	300	1
14	350	1
10	400	1
12	450	1
8	500	1
6	550	1
7	600	1
7	650	1
7	700	1
4	750	1
7	800	1
9	850	1
8	900	1



APPENDIX E. LABORATORY TEST RESULTS

Laboratory tests were conducted on several representative soil samples to better identify the soil classification of the units encountered and to evaluate the material's general physical properties and engineering characteristics. A brief description of the tests performed for this study is provided below. The results of laboratory tests performed on specific samples are provided at the appropriate sample depths on the individual boring logs. However, it is important to note that these test results may not accurately represent in situ soil conditions. All of our recommendations are based on our interpretation of these test results and their use in guiding our engineering judgment. MTC cannot be responsible for the interpretation of these data by others.

Soil samples for this project will be retained for a period of 3 months following completion of this report, unless we are otherwise directed in writing.

SOIL CLASSIFICATION

Soil samples were visually examined in the field by our representative at the time they were obtained. They were subsequently packaged and returned to our laboratory where they were reexamined, and the original description checked and verified or modified. With the help of information obtained from the other classification tests, described below, the samples were described in general accordance with ASTM Standard D2487. The resulting descriptions are provided at the appropriate locations on the individual exploration logs, located in Appendix C, and are qualitative only.

GRAIN-SIZE DISTRIBUTION

Grain-size distribution analyses were conducted in general accordance with ASTM Standard D422 on representative soil samples to determine the grain-size distribution of the on-site soil. The information gained from these analyses allows us to provide a description and classification of the in-place materials. In turn, this information helps us to understand engineering properties of the soil and thus how the in-place materials will react to conditions such as heavy seepage, traffic action, loading, potential liquefaction, and so forth. The results are presented in this Appendix.

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-1 @ 2.5'
Sample#: B17-1226

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand with Gravel
Sample Color:
brown

ACCREDITED
Certificate #: 1366.01, 1366.02

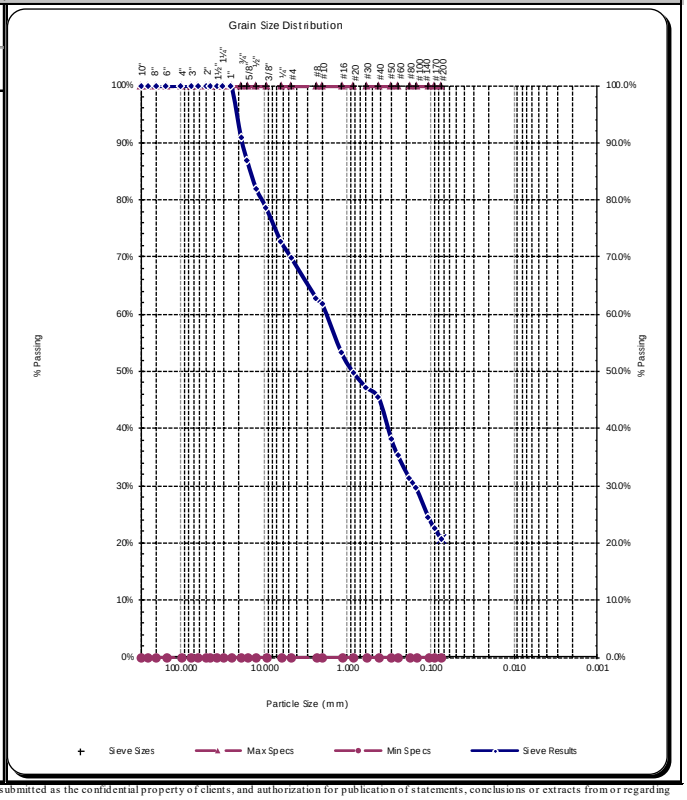
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.018 mm	% Gravel =	30.1%	Coeff. of Curvature, C_C =	0.37
$D_{(10)}$ =	0.036 mm	% Sand =	49.2%	Coeff. of Uniformity, C_U =	50.73
$D_{(15)}$ =	0.054 mm	% Silt & Clay =	20.7%	Fineness Modulus =	3.29
$D_{(30)}$ =	0.157 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	0.866 mm	Plasticity Index =	n/a	Moisture %, as sampled =	5.6%
$D_{(60)}$ =	1.834 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	18.365 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	21/46	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	91%	91%	100.0%	0.0%
5/8"	16.00		87%	100.0%	0.0%
1/2"	12.50	82%	82%	100.0%	0.0%
3/8"	9.50	79%	79%	100.0%	0.0%
1/4"	6.30		73%	100.0%	0.0%
#4	4.75	70%	70%	100.0%	0.0%
#8	2.36		63%	100.0%	0.0%
#10	2.00	62%	62%	100.0%	0.0%
#16	1.18		53%	100.0%	0.0%
#20	0.850		50%	100.0%	0.0%
#30	0.600		47%	100.0%	0.0%
#40	0.425	45%	45%	100.0%	0.0%
#50	0.300		38%	100.0%	0.0%
#60	0.250		35%	100.0%	0.0%
#80	0.180		31%	100.0%	0.0%
#100	0.150	30%	30%	100.0%	0.0%
#140	0.106		24%	100.0%	0.0%
#170	0.090		23%	100.0%	0.0%
#200	0.075	20.7%	20.7%	100.0%	0.0%



Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-1 @ 2.5'** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **5**

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-2 @ 2.5'
Sample#: B17-1227

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand with Gravel
Sample Color:
brown

ACCREDITED
Certificate #: 1366.01, 1366.02

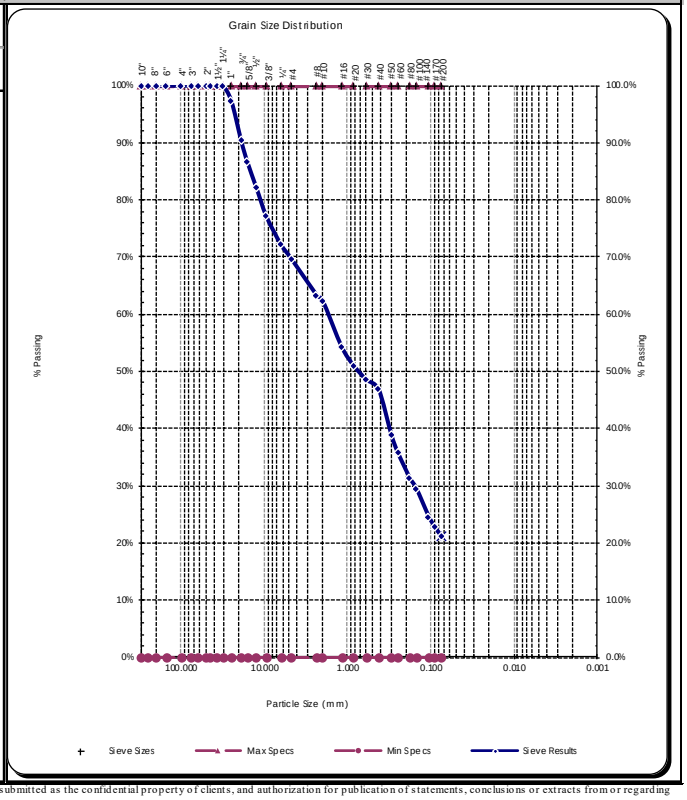
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.018 mm	% Gravel =	30.3%	Coeff. of Curvature, C_C =	0.40
$D_{(10)}$ =	0.036 mm	% Sand =	48.6%	Coeff. of Uniformity, C_U =	49.43
$D_{(15)}$ =	0.053 mm	% Silt & Clay =	21.1%	Fineness Modulus =	3.28
$D_{(30)}$ =	0.158 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	0.746 mm	Plasticity Index =	n/a	Moisture %, as sampled =	4.2%
$D_{(60)}$ =	1.758 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	18.684 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	41/91	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	97%	97%	100.0%	0.0%
3/4"	19.00	90%	90%	100.0%	0.0%
5/8"	16.00		87%	100.0%	0.0%
1/2"	12.50	82%	82%	100.0%	0.0%
3/8"	9.50	77%	77%	100.0%	0.0%
1/4"	6.30		72%	100.0%	0.0%
#4	4.75	70%	70%	100.0%	0.0%
#8	2.36		63%	100.0%	0.0%
#10	2.00	62%	62%	100.0%	0.0%
#16	1.18		54%	100.0%	0.0%
#20	0.850		51%	100.0%	0.0%
#30	0.600		49%	100.0%	0.0%
#40	0.425	47%	47%	100.0%	0.0%
#50	0.300		39%	100.0%	0.0%
#60	0.250		36%	100.0%	0.0%
#80	0.180		31%	100.0%	0.0%
#100	0.150	29%	29%	100.0%	0.0%
#140	0.106		25%	100.0%	0.0%
#170	0.090		23%	100.0%	0.0%
#200	0.075	21.1%	21.1%	100.0%	0.0%



Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-2 @ 2.5'** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **6**

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-3 @ 2.5'
Sample#: B17-1228

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand with Gravel
Sample Color:
brown

ACCREDITED
Certificate #: 1366.01, 1366.02

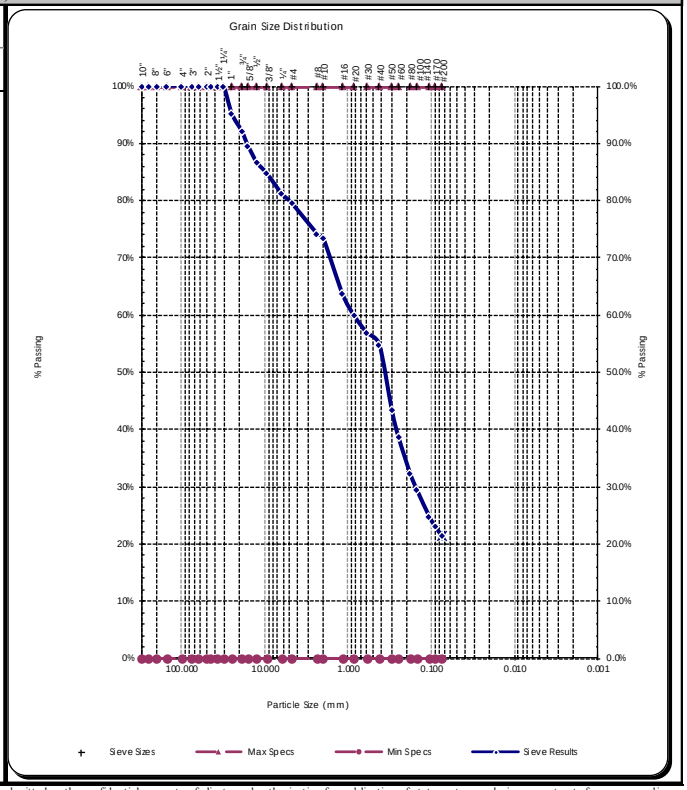
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.018 mm	% Gravel =	20.6%	Coeff. of Curvature, C_C =	0.80
$D_{(10)}$ =	0.035 mm	% Sand =	58.0%	Coeff. of Uniformity, C_U =	24.64
$D_{(15)}$ =	0.053 mm	% Silt & Clay =	21.4%	Fineness Modulus =	2.76
$D_{(30)}$ =	0.156 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	0.372 mm	Plasticity Index =	n/a	Moisture %, as sampled =	6.1%
$D_{(60)}$ =	0.863 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	16.534 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	16/41	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	95%	95%	100.0%	0.0%
3/4"	19.00	92%	92%	100.0%	0.0%
5/8"	16.00		90%	100.0%	0.0%
1/2"	12.50	87%	87%	100.0%	0.0%
3/8"	9.50	85%	85%	100.0%	0.0%
1/4"	6.30		81%	100.0%	0.0%
#4	4.75	79%	79%	100.0%	0.0%
#8	2.36		74%	100.0%	0.0%
#10	2.00	73%	73%	100.0%	0.0%
#16	1.18		64%	100.0%	0.0%
#20	0.850		60%	100.0%	0.0%
#30	0.600		57%	100.0%	0.0%
#40	0.425	55%	55%	100.0%	0.0%
#50	0.300		43%	100.0%	0.0%
#60	0.250		39%	100.0%	0.0%
#80	0.180		32%	100.0%	0.0%
#100	0.150	29%	29%	100.0%	0.0%
#140	0.106		25%	100.0%	0.0%
#170	0.090		23%	100.0%	0.0%
#200	0.075	21.4%	21.4%	100.0%	0.0%



Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-3 @ 5.0'** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **7**

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-3 @ 5.0'
Sample#: B17-1229

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand with Gravel
Sample Color:
gray

ACCREDITED
Certificate #: 1366.01, 1366.02

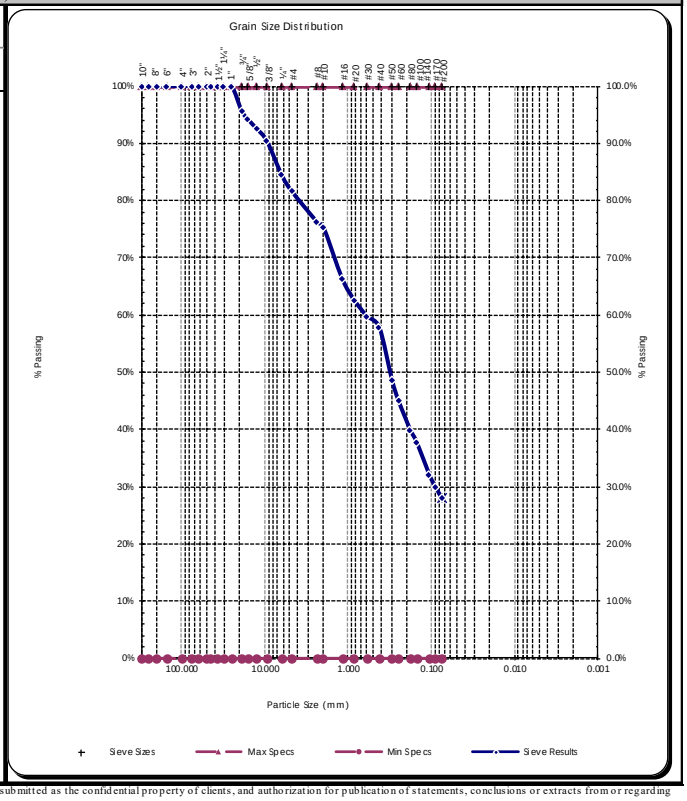
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.013 mm	% Gravel =	18.4%	Coeff. of Curvature, C_C =	0.50
$D_{(10)}$ =	0.027 mm	% Sand =	53.7%	Coeff. of Uniformity, C_U =	23.05
$D_{(15)}$ =	0.040 mm	% Silt & Clay =	27.9%	Fineness Modulus =	2.44
$D_{(30)}$ =	0.091 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	0.318 mm	Plasticity Index =	n/a	Moisture %, as sampled =	7.1%
$D_{(60)}$ =	0.620 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	9.274 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	14/29	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	96%	96%	100.0%	0.0%
5/8"	16.00		94%	100.0%	0.0%
1/2"	12.50	93%	93%	100.0%	0.0%
3/8"	9.50	90%	90%	100.0%	0.0%
1/4"	6.30		84%	100.0%	0.0%
#4	4.75	82%	82%	100.0%	0.0%
#8	2.36		76%	100.0%	0.0%
#10	2.00	75%	75%	100.0%	0.0%
#16	1.18		66%	100.0%	0.0%
#20	0.850		63%	100.0%	0.0%
#30	0.600		60%	100.0%	0.0%
#40	0.425	58%	58%	100.0%	0.0%
#50	0.300		49%	100.0%	0.0%
#60	0.250		45%	100.0%	0.0%
#80	0.180		40%	100.0%	0.0%
#100	0.150	38%	38%	100.0%	0.0%
#140	0.106		32%	100.0%	0.0%
#170	0.090		30%	100.0%	0.0%
#200	0.075	27.9%	27.9%	100.0%	0.0%



Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-3 @ 5.0** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **8**

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-5 @ 2.5'
Sample#: B17-1230

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand with Gravel
Sample Color:
brown

ACCREDITED
Certificate #: 1366.01, 1366.02

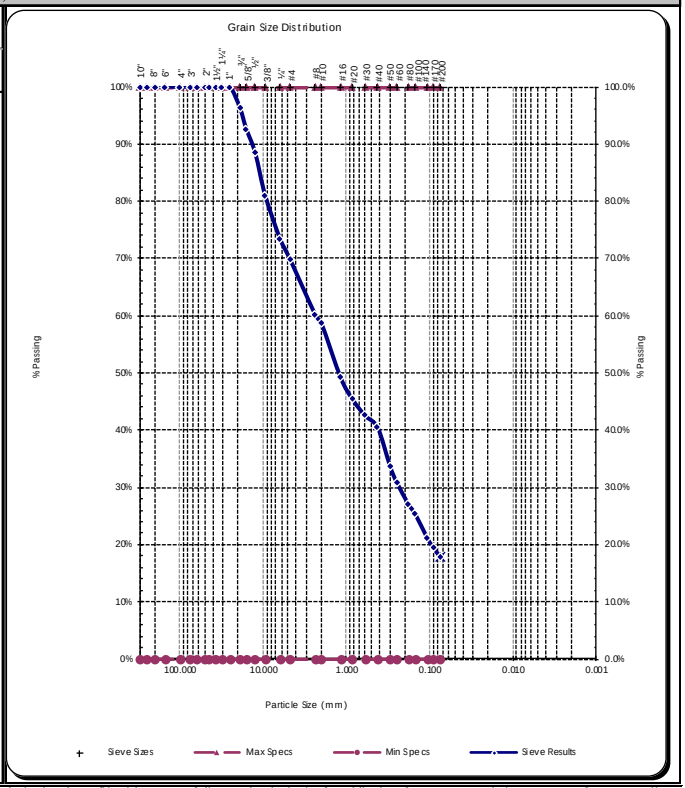
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.021 mm	% Gravel =	30.2%	Coeff. of Curvature, C_C =	0.56
$D_{(10)}$ =	0.042 mm	% Sand =	51.9%	Coeff. of Uniformity, C_U =	55.80
$D_{(15)}$ =	0.063 mm	% Silt & Clay =	18.0%	Fineness Modulus =	3.42
$D_{(30)}$ =	0.233 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	1.247 mm	Plasticity Index =	n/a	Moisture %, as sampled =	3.0%
$D_{(60)}$ =	2.331 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	13.794 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	27/61	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	96%	96%	100.0%	0.0%
5/8"	16.00		93%	100.0%	0.0%
1/2"	12.50	88%	88%	100.0%	0.0%
3/8"	9.50	81%	81%	100.0%	0.0%
1/4"	6.30		73%	100.0%	0.0%
#4	4.75	70%	70%	100.0%	0.0%
#8	2.36		60%	100.0%	0.0%
#10	2.00	59%	59%	100.0%	0.0%
#16	1.18		49%	100.0%	0.0%
#20	0.850		45%	100.0%	0.0%
#30	0.600		43%	100.0%	0.0%
#40	0.425	41%	41%	100.0%	0.0%
#50	0.300		34%	100.0%	0.0%
#60	0.250		31%	100.0%	0.0%
#80	0.180		27%	100.0%	0.0%
#100	0.150	25%	25%	100.0%	0.0%
#140	0.106		21%	100.0%	0.0%
#170	0.090		19%	100.0%	0.0%
#200	0.075	18.0%	18.0%	100.0%	0.0%



Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-5 @ 2.5'** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **9**

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-6 @ 2.5'
Sample#: B17-1231

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
GW-GM, Well-graded Gravel with Silt and Sand
Sample Color:
gray

ACCREDITED
Certificate #: 1366.01, 1366.02

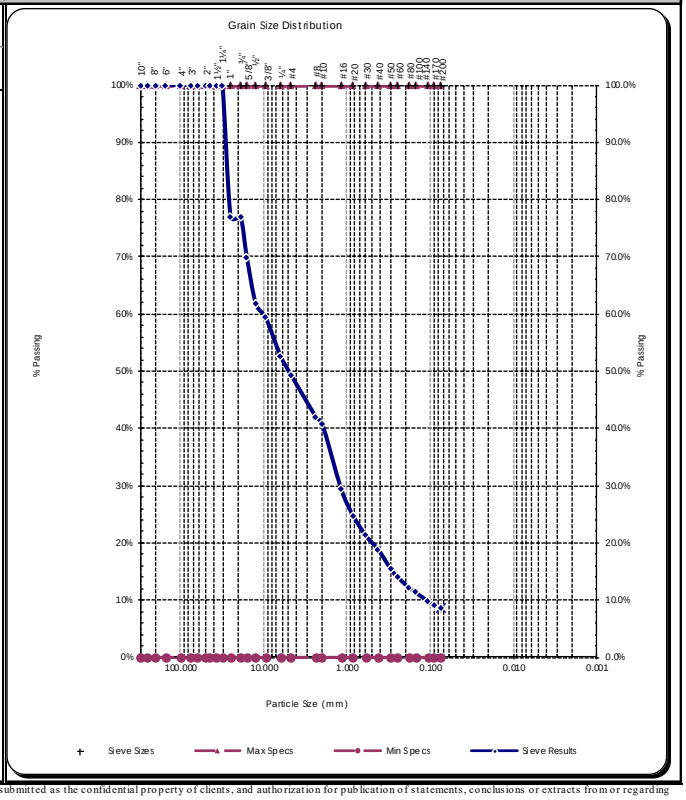
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.043 mm	% Gravel =	50.6%	Coeff. of Curvature, C_C =	1.29
$D_{(10)}$ =	0.112 mm	% Sand =	40.7%	Coeff. of Uniformity, C_U =	91.62
$D_{(15)}$ =	0.284 mm	% Silt & Clay =	8.7%	Fineness Modulus =	4.95
$D_{(30)}$ =	1.222 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	5.035 mm	Plasticity Index =	n/a	Moisture %, as sampled =	1.9%
$D_{(60)}$ =	10.297 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	28.694 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	17/37	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	77%	77%	100.0%	0.0%
3/4"	19.00	77%	77%	100.0%	0.0%
5/8"	16.00		70%	100.0%	0.0%
1/2"	12.50	62%	62%	100.0%	0.0%
3/8"	9.50	59%	59%	100.0%	0.0%
1/4"	6.30		53%	100.0%	0.0%
#4	4.75	49%	49%	100.0%	0.0%
#8	2.36		42%	100.0%	0.0%
#10	2.00	41%	41%	100.0%	0.0%
#16	1.18		29%	100.0%	0.0%
#20	0.850		25%	100.0%	0.0%
#30	0.600		21%	100.0%	0.0%
#40	0.425	19%	19%	100.0%	0.0%
#50	0.300		15%	100.0%	0.0%
#60	0.250		14%	100.0%	0.0%
#80	0.180		12%	100.0%	0.0%
#100	0.150	11%	11%	100.0%	0.0%
#140	0.106		10%	100.0%	0.0%
#170	0.090		9%	100.0%	0.0%
#200	0.075	8.7%	8.7%	100.0%	0.0%



Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-6 @ 2.5'** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **10**

Sieve Report

Project: Hermosa Beach Geotech
Project #: 17B184-01
Client: Gray and Osbourne
Source: B-7 @ 2.5'
Sample#: B17-1232

Date Received: 6-Nov-17
Sampled By: K. Parker
Date Tested: 8-Nov-17
Tested By: M. Carrillo

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand with Gravel
Sample Color:
tan

ACCREDITED
Certificate #: 1366.01, 1366.02

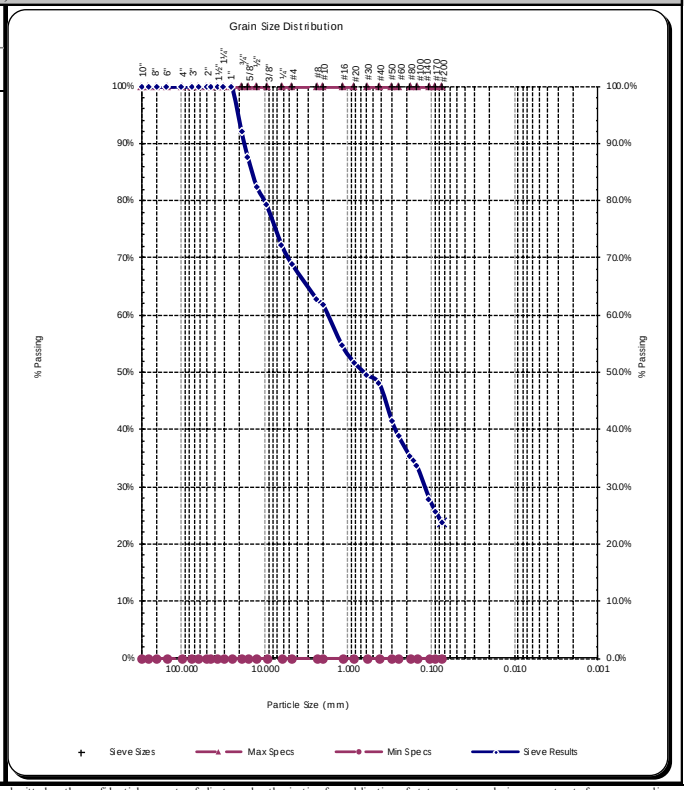
ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.016 mm	% Gravel =	31.0%	Coeff. of Curvature, C_C =	0.26
$D_{(10)}$ =	0.032 mm	% Sand =	45.2%	Coeff. of Uniformity, C_U =	56.80
$D_{(15)}$ =	0.047 mm	% Silt & Clay =	23.7%	Fineness Modulus =	3.18
$D_{(30)}$ =	0.122 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	0.647 mm	Plasticity Index =	n/a	Moisture %, as sampled =	3.6%
$D_{(60)}$ =	1.794 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	17.627 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	42/85	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00		100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	92%	92%	100.0%	0.0%
5/8"	16.00		88%	100.0%	0.0%
1/2"	12.50	82%	82%	100.0%	0.0%
3/8"	9.50	79%	79%	100.0%	0.0%
1/4"	6.30		72%	100.0%	0.0%
#4	4.75	69%	69%	100.0%	0.0%
#8	2.36		63%	100.0%	0.0%
#10	2.00	62%	62%	100.0%	0.0%
#16	1.18		55%	100.0%	0.0%
#20	0.850		52%	100.0%	0.0%
#30	0.600		50%	100.0%	0.0%
#40	0.425	48%	48%	100.0%	0.0%
#50	0.300		42%	100.0%	0.0%
#60	0.250		39%	100.0%	0.0%
#80	0.180		35%	100.0%	0.0%
#100	0.150	34%	34%	100.0%	0.0%
#140	0.106		28%	100.0%	0.0%
#170	0.090		26%	100.0%	0.0%
#200	0.075	23.7%	23.7%	100.0%	0.0%



Comments: _____

Reviewed by: _____

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Lab Sample: B-7 @ 2.5'** Hermosa Beach Area Geotechnical Investigation Tulalip, WA	**FIGURE** **11**

APPENDIX F. ASPHALT CONDITIONS

Table 3: Auger Borehole and Core Exploration Data

Borehole Number	Asphalt Thickness (inches)	Base Material Fill Thickness/Type (inches)
B-1	2	6 / Pit Run
B-2	2	3 ½ / Pit Run
B-3	1	5 / Pit Run
B-4	1 ½	2 / Pit Run
B-5	1 ½	1 ½ / Pit Run
B-6	2	3 ½ / Pit Run
B-7	2	3 ½ / Pit Run
Core Number	**Asphalt Thickness (inches)**	**Base Fill Material Type**
C-1	2 ½	Pit Run
C-2	1 ¾	Pit Run
C-3	2	Pit Run
C-4	2 ¾	Pit Run
C-5	2	Pit Run
C-6	1	Pit Run
C-7	1 ¼	Pit Run
C-8	2 ½	Pit Run
C-9	1 ¾	Pit Run
C-10	2 ¾	Pit Run
C-11	1	Pit Run
C-12	2 ¼	Pit Run
C-13	3	Pit Run
C-14	2 ¼	Pit Run

Core Number	Asphalt Thickness (inches)	Base Material Fill Type (inches)
C-15	3	Pit Run
C-16	2 ¼	Pit Run
C-17	3	Pit Run
C-18	1 ¾	Pit Run
C-19	2 ¼	Pit Run
C-20	1 ¼	Pit Run
C-21	1 ¼	Pit Run

Photo J: Photo of asphalt cores C-1 to C-5 from left to right. Scale in inches and centimeters.

Photo K: Photo of asphalt cores C-6 to C-10 from left to right. Scale in inches and centimeters.

Photo L: Photo of asphalt cores C-11 to C-15 from left to right. Scale in inches and centimeters.

Photo M: Photo of asphalt cores C-16 to C-21 from left to right. Scale in inches and centimeters.

HWA GeoSciences Inc.
DBE/MWBE

January 21, 2022
HWA Project No. 2021-009-21

David Evans & Associates, Inc.
14432 SE Eastgate Way
Bellevue, Washington 98007

Attention: Mary Dahl, P.E.

Subject: **RE-USE OF EXCAVATED SOIL**
EAST COMMERCIAL AREA
Tulalip Waterline Improvements
Tulalip, Washington

Dear Mary,

This report summarizes the results of our review of geotechnical data and presents recommendations regarding the re-use of trench spoils for trench backfill for the East Commercial Area portion of the Tulalip Waterline Improvements project. Information reviewed included the following:

- Two test pits excavated along the east side of Waterworks Road on July 7, 2021, by HWA GeoSciences, Inc. (see Appendix A);

- *Geotechnical Engineering Evaluation*, *Gathering Hall, 76th Place NW and 36th Avenue NW, Tulalip, Washington*, prepared by Geotest Services Inc., submitted to the Tulalip Tribes, dated May 18, 2016 (see Appendix B for pertinent borehole logs);

- *Report of Geotechnical Investigation, Hermosa Beach Area Roadways – Marine Drive & 42nd Drive NW, Tulalip, Washington,* prepared by Materials Testing & Consulting, Inc (MTC), submitted to Gray and Osborne Inc., dated December 20, 2017; and,

- A plan drawing *entitled* Tulalip Bay Water System Improvements, dated June 9, 2021 showing the alignment of the East Area water main to be replaced.

Waterline improvements in the East Commercial Area will consist of replacing several sections of existing 10-inch diameter AC pipelines along Totem Beach Road and Waterworks Road with new 10- or 12-inch diameter PVC pipe. We understand the existing pipelines must be kept in service while the new pipelines are installed. Most of the new pipeline will be installed beneath the pavement of Totem Beach Road (76th Place NW).

SITE CONDITIONS

Information from soil borings and laboratory testing in the *Hermosa Beach Geotechnical Engineering* report and from the Gathering Hall project were utilized in this study, along with two test pit explorations performed by HWA GeoSciences on a lot across from the Fire Station on Waterworks Road. The approximate locations of pertinent explorations are shown on Figure 2.

The roadway of 76th Place NW / Totem Beach Road slopes gently downward to the west and south from Marine View Drive NW. It is a relatively new two-lane, asphalt-paved road, with curbs, gutters, and sidewalks on both sides. The existing pipeline is on the south side of the road, but its exact alignment has not been determined.

CONCLUSIONS & RECOMMENDATIONS

Our review of available subsurface data indicates that west of Marine View Drive, the near-surface soils to the depth of the proposed pipelines consist of silty, gravelly sands and clayey, sandy silts. These soils appear to consist of outwash and glacial till, and fill material derived from outwash and glacial till. To the east of Marine View Drive, our test pits encountered silty sand over clay. These soils appear to consist of outwash and glaciolacustrine deposits. Old topsoil with roots and other organics was encountered below fill in some explorations. The actual transition between the general soil types is uncertain. The soil conditions are likely to vary over the length of the project. Most of these soils contain sufficient silt and/or clays to be moisture sensitive and could be un-compactable when too wet.

Ground water is likely to be encountered in excavations along the pipeline route, with the depth and quantity of water depending on the season and local precipitation. The ground water is most likely perched above the till-like or clay soils at depths of 3 feet or deeper.

Moisture contents on samples from the prior borings indicate that the soils were generally near their optimum moisture contents. They could be used as trench backfill in landscape areas provided they do not become excessively wet during the construction process. These soils will likely be too wet for use as trench backfill beneath pavements. Imported clean granular soils will likely be required for pipe bedding and trench backfill in paved areas. We understand Snohomish County may require trench backfill beneath County roads to consist of crushed rock.

We recommend all trench backfill beneath roadways and other areas to be paved be compacted to at least 95% of its maximum dry density in accordance with ASTM D 1557. We also recommend delaying final paving over pipeline trenches, preferably through a wet season, to allow settlements to occur and minimize pavement damage due to post construction settlements.

CONDITIONS AND LIMITATIONS

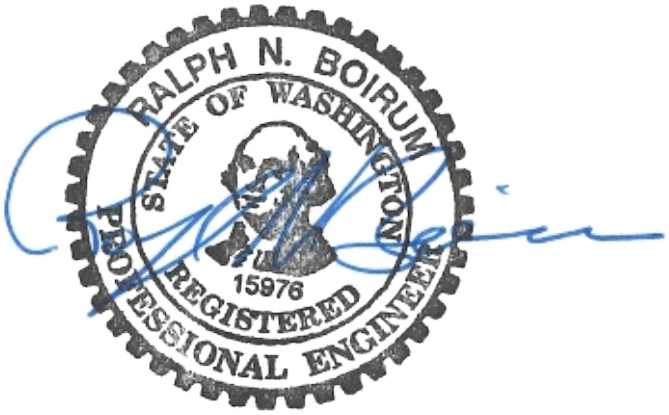
We have prepared this letter report for David Evans and Associates and the Tulalip Tribes of Washington for use in design and construction of portions of this project. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however,

the conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and ground water conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

We appreciate the opportunity to be of service.

Sincerely,

HWA GeoSciences, Inc.



Ralph N. Boirum, P. E.
Geotechnical Engineer, Principal

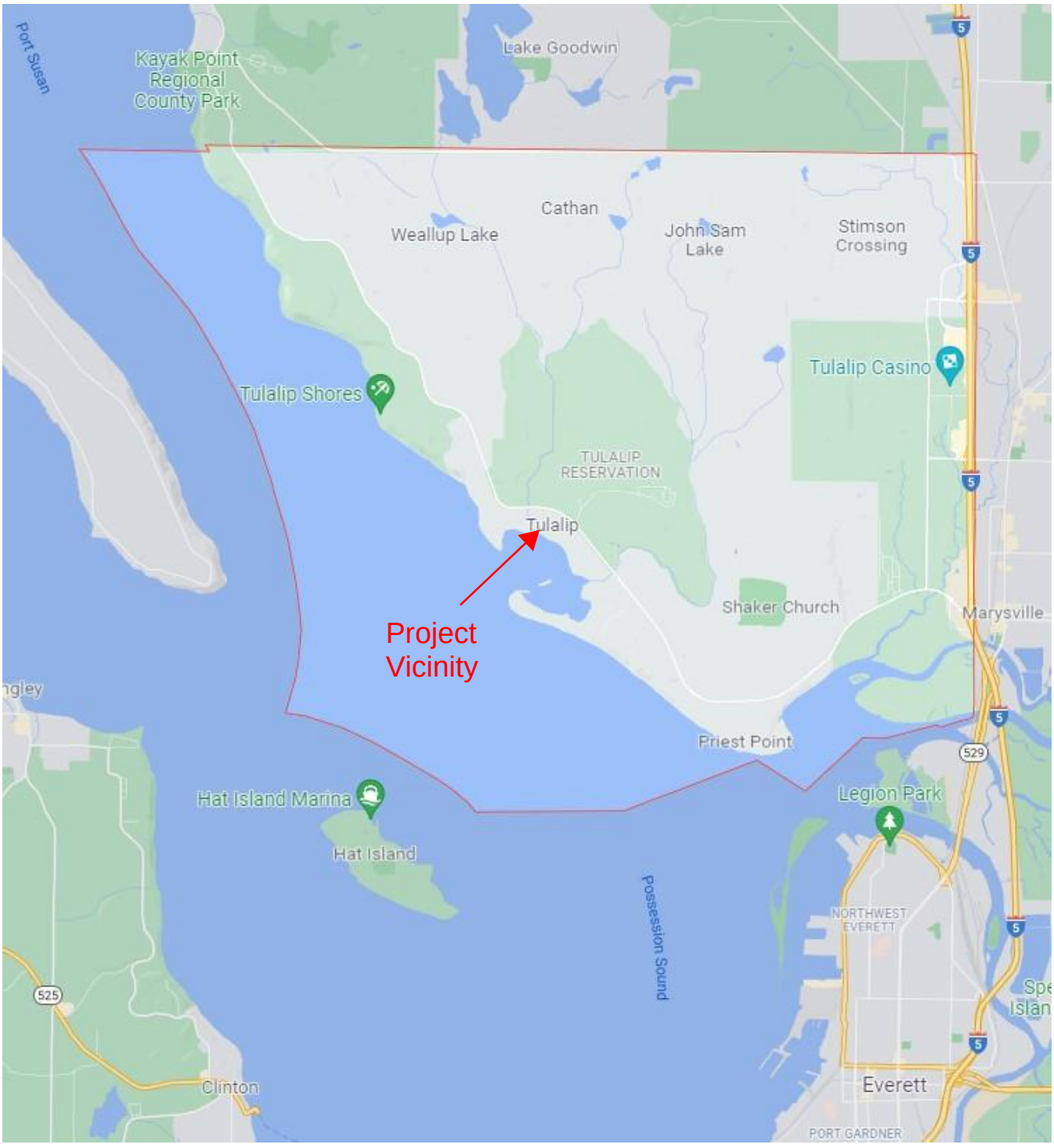
Attachments

Figure 1	Site Vicinity Map
Figure 2	Site and Exploration Plan

Appendix A: Field Exploration

Figure A-1	Legend of Terms and Symbols Used on Exploration Logs
Figures A-2 – A-3	Logs of Test Pits TP-1 and TP-2

Appendix B: Previous Explorations



Map not to scale. C 2022 Google Maps.

N

HWA GeoSciences Inc. DBE/MWBE	**VICINITY MAP** EAST COMMERCIAL AREA TULALIP WATERLINE IMPROVEMENTS TULALIP, WASHINGTON	FIGURE NO. **1** PROJECT NO. 2021-009-21

TP-2 Test Pit designation and approximate location (HWA)

B-4 Borehole designation and approximate location (GeoTest, 2016)

B-7 Borehole designation and approximate location (MTC, 2017)

N

HWA GeoSciences Inc. DBE/MWBE

SITE AND EXPLORATION PLAN

EAST COMMERCIAL AREA
TULALIP WATERLINE IMPROVEMENTS
TULALIP, WASHINGTON

FIGURE NO. 2

PROJECT NO. 2021-009-21

APPENDIX A

FIELD EXPLORATION

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)	GW	Well-graded GRAVEL
			GP	Poorly-graded GRAVEL
	More than 50% of Coarse Fraction Retained on No. 4 Sieve	Gravel with Fines (appreciable amount of fines)	GM	Silty GRAVEL
			GC	Clayey GRAVEL
More than 50% Retained on No. 200 Sieve Size	Sand and Sandy Soils	Clean Sand (little or no fines)	SW	Well-graded SAND
			SP	Poorly-graded SAND
	50% or More of Coarse Fraction Passing No. 4 Sieve	Sand with Fines (appreciable amount of fines)	SM	Silty SAND
			SC	Clayey SAND
Fine Grained Soils	Silt and Clay	Liquid Limit Less than 50%	ML	SILT
			CL	Lean CLAY
			OL	Organic SILT/Organic CLAY
50% or More Passing No. 200 Sieve Size	Silt and Clay	Liquid Limit 50% or More	MH	Elastic SILT
			CH	Fat CLAY
			OH	Organic SILT/Organic CLAY
Highly Organic Soils			PT	PEAT

TEST SYMBOLS

%F	Percent Fines
AL	Atterberg Limits: PL = Plastic Limit, LL = Liquid Limit
CBR	California Bearing Ratio
CN	Consolidation
DD	Dry Density (pcf)
DS	Direct Shear
GS	Grain Size Distribution
K	Permeability
MD	Moisture/Density Relationship (Proctor)
MR	Resilient Modulus
OC	Organic Content
pH	pH of Soils
PID	Photoionization Device Reading
PP	Pocket Penetrometer (Approx. Comp. Strength, tsf)
Res.	Resistivity
SG	Specific Gravity
CD	Consolidated Drained Triaxial
CU	Consolidated Undrained Triaxial
UU	Unconsolidated Undrained Triaxial
TV	Torvane (Approx. Shear Strength, tsf)
UC	Unconfined Compression

SAMPLE TYPE SYMBOLS

- 2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
- Shelby Tube
- Non-standard Penetration Test (3.0" OD Split Spoon with Brass Rings)
- Small Bag Sample
- Large Bag (Bulk) Sample
- Core Run
- 3-1/4" OD Split Spoon

GROUNDWATER SYMBOLS

- Groundwater Level (measured at time of drilling)
- Groundwater Level (measured in well or open hole after water level stabilized)

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS
< 5%	Clean
5 - 12%	Slightly (Clayey, Silty, Sandy)
12 - 30%	Clayey, Silty, Sandy, Gravelly
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)
Components are arranged in order of increasing quantities.	

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation.
Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.

GeoSciences Inc.

TULALIP WATERLINE IMPROVEMENTS
TULALIP, WASHINGTON

LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

PROJECT NO.: 2021-009-21 FIGURE: A-1

EXCAVATION COMPANY: Tulalip Construction
EXCAVATING EQUIPMENT: Cat 304 Excavator

LOCATION: 7811 Water Works Rd - Driveway
DATE COMPLETED: 7/7/21
LOGGED BY: B. Thurber

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTUE CONTENT (%)	OTHER TESTS
0		SP SM	Loose, olive bown, slightly silty, gravelly SAND, moist. **(FILL)**				
			Soft, dark brown, organic, sandy SILT, moist. Scattered roots.				
		SM	**(BURIED TOPSOIL)**		S-1		
		CL	Loose, dark reddish brown, very silty, fine SAND, moist.		S-2		
		CL	Very stiff, rust- and light gray-mottled light brown, CLAY, moist. Scattered roots. **(GLACIOMARINE DRIFT)**		S-3		
5		CL	Grades to hard and rust- and gray-mottled olive gray.				
			Hard, rust-mottled olive gray, slightly sandy, gravelly CLAY moist. Scattered cobbles. Grades to less clay.		S-4		
			Test pit terminated at 7 feet. No groundwater seepage observed during excavation. No caving.				
10							
15							

TEST PIT PHOTO

WEST

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GEOSCIENCES INC.

TULALIP WATERLINE IMPROVEMENTS
TULALIP, WASHINGTON

LOG OF TEST PIT
TP-1

PAGE: 1 of 1

PROJECT NO.: 2021-009-21 FIGURE: A-2

SMART TP 2021-009.GPJ 1/21/22

EXCAVATION COMPANY: Tulalip Construction
EXCAVATING EQUIPMENT: Cat 420F Backhoe

LOCATION: 7811 Water Works Rd - 65' NE of TP-1
DATE COMPLETED: 7/7/21
LOGGED BY: B. Thurber

DEPTH (feet)	SYMBOL	USCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTUE CONTENT (%)	OTHER TESTS
0		SP SM	Loose, olive gry, slightly silty, gravely SAND, dry to moist.				
			(FILL)				
		SM	Loose, dark brown, organic, silty, fine SAND, moist. Scattered roots.		S-1		
		SP SM	(BURIED TOPSOIL)		S-2		
			Medium dense, reddish brown, silty, fine to medium SAND, moist.		S-3		
			(RECESSIONAL OUTWASH)				
5			Medium dense, yellow brown grading to light olive brown, slightly silty, fine to medium SAND, moist.				
		CL	Very stiff grading to hard (by 4 feet), rust-mottled light brown, CLAY, moist. Scattered fine gravel. Top of unit slopes down to 4 feet to west.		S-4		
			(GLACIOMARINE DRIFT)				
			Dark olive brown below 5 feet.				
			Blocky texture below approx. 6.5 feet.				
10			Test pit terminated at 8.5 feet. Minor groundwater seepage at 4 feet, west end of pit. No caving.				
15							

TEST PIT PHOTO

NORTH

NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

HWA GEOSCIENCES INC.

TULALIP WATERLINE IMPROVEMENTS
TULALIP, WASHINGTON

LOG OF TEST PIT
TP-2

PAGE: 1 of 1

PROJECT NO.: 2021-009-21 FIGURE: A-3

SMART TP 2021-009.GPJ 1/21/22

APPENDIX B

PREVIOUS EXPLORATIONS (GEOTEST, 2016)

Soil Classification System

MAJOR DIVISIONS			GRAPHIC SYMBOL	USCS LETTER SYMBOL	TYPICAL DESCRIPTIONS[1][2]
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
				GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		GM	Silty gravel; gravel/sand/silt mixture(s)
				GC	Clayey gravel; gravel/sand/clay mixture(s)
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well-graded sand; gravelly sand; little or no fines
				SP	Poorly graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		SM	Silty sand; sand/silt mixture(s)
				SC	Clayey sand; sand/clay mixture(s)
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)			ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
				CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
				OL	Organic silt; organic, silty clay of low plasticity
	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic silt; micaceous or diatomaceous fine sand
				CH	Inorganic clay of high plasticity; fat clay
				OH	Organic clay of medium to high plasticity; organic silt
	HIGHLY ORGANIC SOIL			PT	Peat; humus; swamp soil with high organic content

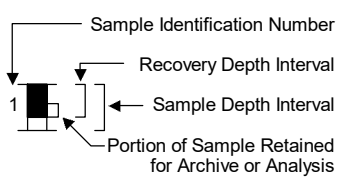
OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

Notes:
1. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*, as outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.
2. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
> 12% and ≤ 30% - "gravelly," "sandy," "silty," etc.
Additional Constituents: > 5% and ≤ 12% - "slightly gravelly," "slightly sandy," "slightly silty," etc.
≤ 5% - "trace gravel," "trace sand," "trace silt," etc., or not noted.

Drilling and Sampling Key

SAMPLE NUMBER & INTERVAL



SAMPLER TYPE

Code	Description
a	3.25-inch O.D., 2.42-inch I.D. Split Spoon
b	2.00-inch O.D., 1.50-inch I.D. Split Spoon
c	Shelby Tube
d	Grab Sample
e	Other - See text if applicable
1	300-lb Hammer, 30-inch Drop
2	140-lb Hammer, 30-inch Drop
3	Pushed
4	Other - See text if applicable

Groundwater

▽ ATD — Approximate water elevation at time of drilling (ATD) or on date noted. Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.

Field and Lab Test Data

Code	Description
PP = 1.0	Pocket Penetrometer, tsf
TV = 0.5	Torvane, tsf
PID = 100	Photoionization Detector VOC screening, ppm
W = 10	Moisture Content, %
D = 120	Dry Density, pcf
-200 = 60	Material smaller than No. 200 sieve, %
GS	Grain Size - See separate figure for data
AL	Atterberg Limits - See separate figure for data
GT	Other Geotechnical Testing
CA	Chemical Analysis

GEOTEST

Tulalip Gathering Hall
76th Pl NW and 36th Ave
Tulalip, Washington

Soil Classification System and Key

Figure
A-1

B-2(2016)

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): ~50
Drilled By: Geologic Drill Exploration, Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	Description
0	7	b2	17	W = 8	SM	Loose to medium dense, mixed brown to grey, moist, slightly gravelly to gravelly, silty, SAND (Uncontrolled Fill) with very silty/clayey lenses
2	8	b2	17	CA		
4						Becoming wet
6	9	b2	10	W = 15 GS		
7					CH/ OH	Stiff, dark green grey, wet, slightly organic, sandy, CLAY (Relict Topsoil/Tide Flat Deposit)
8	10	b2	7	W = 23 GS	CL/ CH	Stiff, grey, wet, very sandy, CLAY (Glaciomarine Drift)
10	11	b2	16	W = 13		
12						▽ ATD
12					SP-SM	Medium dense to dense, grey, saturated, slightly silty, gravelly to very gravelly, SAND (Advance Outwash)
14						
16	12	b2	31	W = 15		
18						

Boring Completed 04/21/16
Total Depth of Boring = 16.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

16-0207 5/12/16 C:\USERS\JUSTIN\DESKTOP\JOB FILES\16-0207 - TULALIP GATHERING HALL\16-0207 - GATHERING HALL.GPJ SOIL BORING LOG

GEOTEST

Tulalip Gathering Hall
76th Pl NW and 36th Ave
Tulalip, Washington

Log of Boring B-2(2016)

Figure
A-3

B-3(2016)

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0		b2		CA		SM	Loose to medium dense, mixed brown to orange tan, moist, slightly gravelly, very silty, SAND (Uncontrolled Fill)	
2	13	b2	11	W = 29		SC/ CH	Medium dense/stiff to very stiff, grey, moist, very clayey, SAND to sandy, CLAY (Glaciomarine Drift)	
4	14	b2	25	W = 28				
6	15	b2	17	W = 15 GS		SP-SM	Medium dense to very dense, tan, wet to saturated, slightly silty, gravelly to very gravelly, SAND (Advance Outwash) with increasing lenses of very sandy, GRAVEL with depth	▽ ATD
8	16	b2	57	W = 9			Significant red orange mottling in sample	
10	17	b2	58	W = 8				
12								
14								
16	18	b2	39	W = 21				
18								

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): ~61

Drilled By: Geologic Drill Exploration, Inc.

Boring Completed 04/21/16
Total Depth of Boring = 16.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

16-0207 5/12/16 C:\USERS\JUSTIN\DESKTOP\JOB FILES\16-0207 - TULALIP GATHERING HALL\16-0207 - GATHERING HALL.GPJ SOIL BORING LOG

GEOTEST

Tulalip Gathering Hall
76th Pl NW and 36th Ave
Tulalip, Washington

Log of Boring B-3(2016)

Figure
A-4

B-4(2016)

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): ~56

Drilled By: Geologic Drill Exploration, Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	Test Data	USCS Symbol	Description
0					SC/ CH	Loose to medium dense/medium stiff to stiff, grey, moist to wet, very clayey SAND to sandy, CLAY (Glaciomarine Drift)
2	19	b2	8	CA W = 31 GS AL		
4						
6	20	b2	12	W = 25		
8	21	b2				
	22	b2	27	W = 11 GS	SP-SM	Medium dense to very dense, grey, saturated, slightly silty, very gravelly, SAND (Advance Outwash) with increasing lenses of very sandy, GRAVEL with depth
10	23	b2	57	W = 11 GS		
12						
14						
16	24	b2	32	W = 16		
18						

Water Level: ▽ ATD

Boring Completed 04/21/16
Total Depth of Boring = 16.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

16-0207 5/12/16 C:\USERS\JUSTIN\DESKTOP\JOB FILES\16-0207 - TULALIP GATHERING HALL\16-0207 - GATHERING HALL.GPJ SOIL BORING LOG

GEOTEST

Tulalip Gathering Hall
76th Pl NW and 36th Ave
Tulalip, Washington

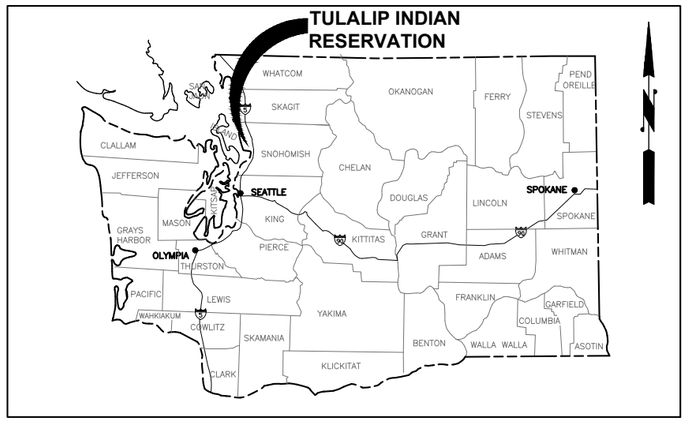
Log of Boring B-4(2016)

Figure
A-5

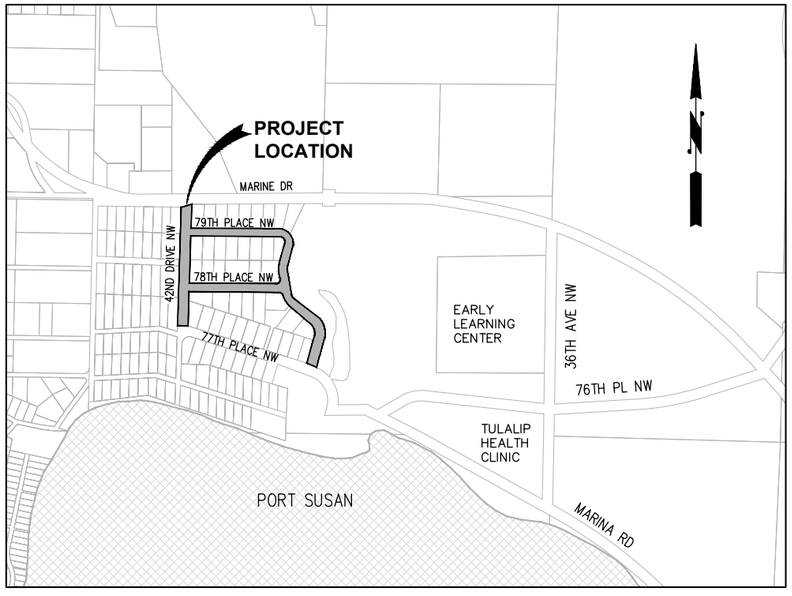
Appendix B

Plans

U.S.B.I.A. REGION	RESERVATION	STATE	TOTAL SHEET
NORTHWEST	TULALIP	WA	32
BIA ROUTE #6085			



VICINITY MAP



LOCATION MAP

SEC. 21 AND 22, T 30 N, R 04 E, W.M.

CONTRACT PLANS

HERMOSA ROADS

TULALIP INDIAN RESERVATION
SNOHOMISH COUNTY

TULALIP TRIBES PROJECT NO. 2021-101-C

UTILITIES:

FRONTIER COMMUNICATIONS
1800 41ST STREET
EVERETT, WA 98201
ATTN: ADAM DIAZ
OFFICE: 425.261.0134
CELL: 425.614.9754

TULALIP BROADBAND (CABLE)
8825 QUIL CEDA BOULEVARD, SUITE O
TULALIP, WA 98271
ATTN: RICHARD BROWN
OFFICE: 360.716.3277
CELL: 425.754.0033

VERIZON
OSP ENGINEERING
PO BOX 1003
EVERETT, WA 98200
ATTN: TIM RENNICK
OFFICE: 425.327.8118

SNOHOMISH COUNTY PUBLIC UTILITIES DISTRICT (PUD)
210 EAST DIVISION STREET
ARLINGTON, WA 98223
ATTN: KALLEN SHAUGNESSY-RANDALL
425.783.4370

TULALIP TECHNOLOGY DATA SERVICES
8825 QUIL CEDA BOULEVARD, SUITE O
TULALIP, WA 98271
ATTN: TRAVIS HILL
360.716.8008

TULALIP UTILITIES
3015 MISSION BEACH RD
TULALIP, WA 98271
ATTN: MIKE LESLIE
OFFICE: 360.716.4840

OWNER:

THE TULALIP TRIBES
ROADS & TRANSPORTATION
8802 27TH AVENUE NE
QUIL CEDA VILLATE, WA 98271
ATTN: CHRISTINA PARKER
OFFICE: 360.716.5026
CELL: 360.913.4205

ENGINEER:

PARAMETRIX
712 2ND AVENUE, SUITE 200
SEATTLE, WA 98104
ATTN: JACK WRIGHT
253.604.6759

SURVEY:

DAVID R. DOWNING & ASSOCIATES
4229 76TH STREET NE
MARYSVILLE, WA 98270
ATTN: DAVID DOWNING
360.653.5385

GEOTECHNICAL:

MATERIALS TESTING & CONSULTING INC.
777 CHRYSLER DRIVE
BURLINGTON, WA. 98233
ATTN: KURT PARKER, L.G.
360.755.1990

INDEX TO DRAWINGS

Know what's **below.** **Call** before you dig.

REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME COVER
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

COVER SHEET, LOCATION MAP AND SHEET INDEX

DRAWING NO. 1 OF 32

1

ABBREVIATIONS

AVE	AVENUE
AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
AP	ANGLE POINT
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CTR	CENTER
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
℄	CENTER LINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
C	CONDUIT
CONN	CONNECTION
CONT	CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CY	CUBIC YARD
CONT	CONTINUED
CL	CLASS
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CU	COPPER
DC	DEGREE OF CURVATURE
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DWGS	DRAWING(S)
D	DRAIN
E	EAST
EA	EACH
EL	ELEVATION
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
IE	INVERT ELEVATION
INV	INVERT
IN	INCH
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
ME	MATCH EXISTING
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MISC	MISCELLANEOUS
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PI	POINT OF INTERSECTION
PP	POWER POLE
PVI	POINT OF VERTICAL INTERSECTION
PE	PLAIN END
PERF	PERFORATED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
QTY	QUANTITY
RET	RETAINING
RR	RAILROAD
R	RADIUS
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
R/W	RIGHT-OF-WAY
SE	SPOT ELEVATION
SL	SLOPE
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SPECS	SPECIFICATIONS
SQ	SQUARE
STA	STATION
STD	STANDARD
TB	THRUST BLOCK
TC	TOP OF CURB
TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THRD	THREADED
THRU	THROUGH
TYP	TYPICAL
VERT	VERTICAL
W	WEST
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
W/	WITH
W/O	WITHOUT

LINETYPES

EXISTING	PROPOSED	DESCRIPTION
		SURFACE FEATURES
		CURB (TYPE AS NOTED)
		CURB & GUTTER
		ASPHALT WEDGE CURB
		ASPHALT PAVEMENT
		CONCRETE SURFACING
		CEMENT CONC. SIDEWALK
		GUARD RAIL
x x		FENCE/RAILING (TYPE AS NOTED)
x x		FENCE WITH GATE
		WOOD FENCE
		SHRUB/TREE/VEGETATION LINE
		SURVEY
		RIGHT-OF-WAY LINE
		CENTERLINE OF RIGHT-OF-WAY
		CENTERLINE OF CONSTRUCTION
		PROPERTY LINE
-10-		CONTOUR LINE
		SAWCUT LINE (APPROXIMATE LOCATION)
		CUT LINE
		FILL LINE
		UTILITIES
OH		OVERHEAD UTILITIES
E		BURIED ELECTRICAL
T		BURIED TELEPHONE/COMMUNICATIONS
FO		BURIED FIBER-OPTIC LINE
G		GAS MAIN (SIZE AS NOTED)
W		WATER MAIN (SIZE AS NOTED)
S		SANITARY SEWER MAIN (SIZE AS NOTED)
D	D	STORM DRAIN (SIZE AS NOTED)
D	D	CULVERT (SIZE & TYPE AS NOTED)

WATER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		BOLLARD
		WATER METER
		WELL
		WATER VAULT (SIZE VARIES)
		FIRE HYDRANT (3-NOZZLE)
		GATE VALVE

GAS/POWER/TELEPHONE SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		UTILITY POLE
		UTILITY POLE ANCHOR
		TELEPHONE (SIZE VARIES)
		POWER VAULT

SANITARY/STORM SEWER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		STORM DRAIN CATCH BASIN, CONCRETE INLET, OR YARD/AREA DRAIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		SANITARY SEWER MANHOLE (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		STORM DRAIN INLET PROTECTION
		SEWER CLEAN OUT

EROSION CONTROL SYMBOLS

PROPOSED	
	STRAW WATTLES

ILLUMINATION SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JUNCTION BOX (TYPE I, II, III, SEE PLANS)
		STREET LIGHT ASSEMBLY/LUMINAIRE

SURFACE FEATURES/LANDSCAPING SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
BUS		BUS STOP
		MAIL BOX (NOTED)
		MAIL BOX CLUSTER
		ROCK WALL
		SHRUB
		TREE (ALDER, DIAMETER VARIES)
		TREE (DECIDUOUS, DIAMETER VARIES)
		TREE (EVERGREEN, DIAMETER VARIES)

SURVEY SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROL POINT
		MONUMENT (IN CASE)

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE FURNISHED AND SUPPLIED IN ACCORDANCE WITH THE 2021 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION UNLESS OTHERWISE SPECIFICALLY NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT AND COORDINATE WITH ALL UTILITY COMPANIES IN ORDER TO ASSURE THAT ALL LINES, PIPES, POLES AND OTHER APPURTENANCES ARE PROPERLY LOCATED, SECURED, AND/OR PROTECTED. BURIED UTILITIES (WHERE KNOWN) ARE SHOWN IN THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL HAVE UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. THE TULALIP TRIBE DOES NOT SUBSCRIBE TO THE UNDERGROUND UTILITIES LOCATE CENTER AND THE CONTRACTOR MUST CONTACT THE UTILITIES INDIVIDUALLY.
3. ALL PAVEMENT MARKINGS SHALL BE INSTALLED/REINSTALLED IN CONFORMANCE TO THE REQUIREMENTS OF THESE PLANS, CONTRACT SPECIFICATIONS, AND THE M.U.T.C.D. MANUAL.
4. THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS AND THE CONTRACT SPECIFICATIONS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER IN THE EVENT OR DISCOVERY OF UNSUITABLE SOILS OR HIGH GROUND WATER CONDITIONS OR DISCREPANCIES FROM THE PLANS.
6. WHEREVER PLANS REFER TO "SAWCUT" OF ASPHALT CONCRETE PAVEMENT OR CONCRETE SURFACE, THE CONTRACTOR SHALL PERFORM A "NEAT LINE CUT" PER THE SPECIFICATIONS.
7. CATCH BASINS AND INLETS HAVE BEEN SHOWN IN GENERAL WITH A RELATIVE STATION AND OFFSET. THE INTENT OF THIS PROJECT IS TO LOCATE THE CATCH BASINS AND INLETS IN THE GUTTER PAN AT THEIR RESPECTIVE ELEVATIONS.
8. THE CONTRACTOR SHALL MAINTAIN A CLEAN LEGIBLE SET OF "RECORD" DRAWINGS AND PROVIDE A SET TO THE OWNER PRIOR TO DEMOBILIZATION OF THE SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE MUTCD. PRIOR TO DISRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS SHALL BE PREPARED AND SUBMITTED TO THE OWNER FOR APPROVAL.
10. ACCESS SHALL BE MAINTAINED TO ALL RESIDENTIAL PROPERTIES AT THE END OF EACH WORK DAY. SEE SPECIAL PROVISION SECTION 2-03 FOR ADDITIONAL REQUIREMENTS.

REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME LEGEND
JOB No. 554-1598-141
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3/24/22

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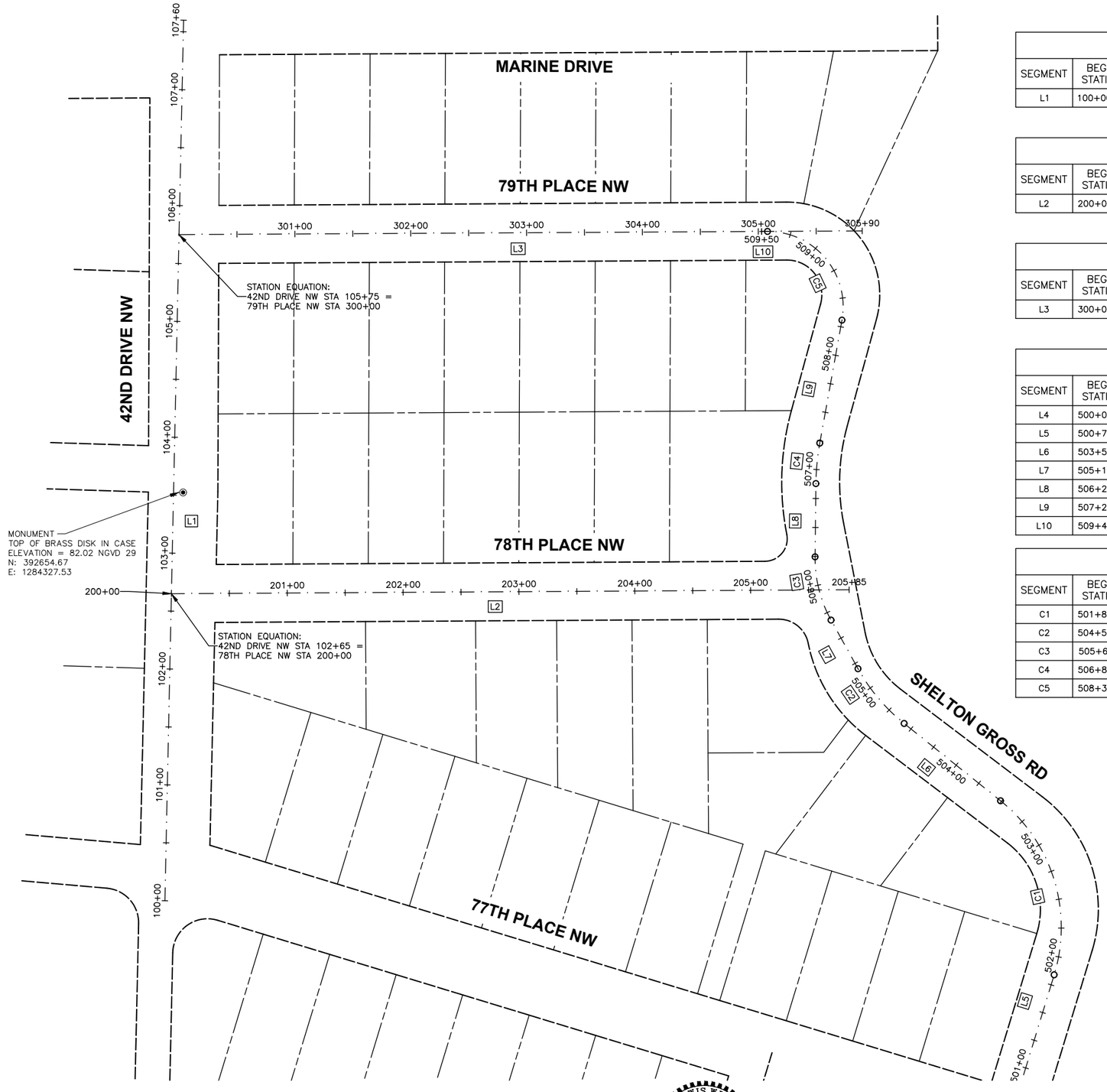
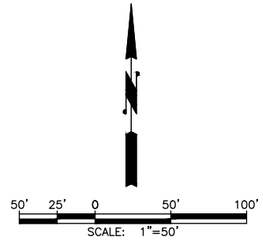
WWW.PARAMETRIX.COM

PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

SYMBOL LEGEND, ABBREVIATIONS AND GENERAL NOTES

DRAWING NO. 2 OF 32
2





42ND DRIVE NW - CONSTRUCTION CENTERLINE ALIGNMENT

SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
L1	100+00.00	392,302.377	1,284,311.826	107+60.00	393,062.206	1,284,327.942	760.00	N1°12'54"E				

78TH PLACE NW - CONSTRUCTION CENTERLINE ALIGNMENT

SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
L2	200+00.00	392,567.301	1,284,317.445	205+85.00	392,570.712	1,284,902.438	585.00	N89°39'57"E				

79TH PLACE NW - CONSTRUCTION CENTERLINE ALIGNMENT

SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
L3	300+00.00	392,877.189	1,284,324.018	305+00.00	392,880.104	1,284,824.009	500.00	N89°39'57"E				

SHELTON GROSS RD - CONSTRUCTION CENTERLINE ALIGNMENT

SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
L4	500+00.00	392,061.847	1,285,027.668	500+79.85	392,138.801	1,285,048.974	79.85	N15°28'32"E				
L5	500+79.85	392,138.801	1,285,048.974	501+84.04	392,238.434	1,285,079.455	104.19	N17°00'38"E				
L6	503+50.90	392,388.616	1,285,033.158	504+57.54	392,455.326	1,284,949.959	106.64	N51°16'37"W				
L7	505+19.74	392,502.575	1,284,910.114	505+67.71	392,544.533	1,284,886.852	47.97	N29°00'15"W				
L8	506+24.65	392,599.125	1,284,873.064	506+87.86	392,662.324	1,284,873.786	63.20	N0°39'16"E				
L9	507+22.97	392,697.242	1,284,877.114	508+30.82	392,803.373	1,284,896.278	107.85	N10°14'07"E				
L10	509+44.85	392,879.922	1,284,831.999	509+50.00	392,879.897	1,284,826.845	5.15	S89°43'27"W				

SHELTON GROSS RD - CONSTRUCTION CENTERLINE ALIGNMENT

SEGMENT	BEGIN STATION	BEGIN NORTHING	BEGIN EASTING	END STATION	END NORTHING	END EASTING	DISTANCE	BEARING	RADIUS	TANGENT	CURVE LENGTH	DELTA
C1	501+84.04	392,238.434	1,285,079.455	503+50.90	392,388.616	1,285,033.158			140.00	94.94	166.86	68°17'15"
C2	504+57.54	392,455.326	1,284,949.959	505+19.74	392,502.575	1,284,910.114			160.00	31.50	62.20	22°16'22"
C3	505+67.71	392,544.533	1,284,886.852	506+24.65	392,599.125	1,284,873.064			110.00	29.12	56.94	29°39'30"
C4	506+87.86	392,662.324	1,284,873.786	507+22.97	392,697.242	1,284,877.114			210.00	17.60	35.12	9°34'52"
C5	508+30.82	392,803.373	1,284,896.278	509+44.85	392,879.922	1,284,831.999			65.00	78.17	114.03	100°30'41"

BENCH MARK

NGVD BASED ON SNOHOMISH COUNTY MONUMENT 127
ELEVATION = 35.853 (88) – 3.697 = 32.155 (29)
HORIZONTAL DATUM:
WASHINGTON STATE PLANE COORDINATE SYSTEM
NORTH ZONE – NAD 1983/91

SURVEY DISCLAIMER

SURVEY CONTROL AND TOPOGRAPHIC INFORMATION PROVIDED BY DAVID DOWNING SURVEYING. SURVEY COMPLETED IN OCTOBER 2017. PARAMETRIX MAKES NO GUARANTEES TO THE ACCURACY OF THE SURVEY INFORMATION CONTAINED WITHIN.

LAYOUT: SURVEY CONTROL PATH: U:\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects CN\99svcs\CADD\DWG\Hermosa Beach\Civil PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:27:04 PM

REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME SURVEY CONTROL
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 46258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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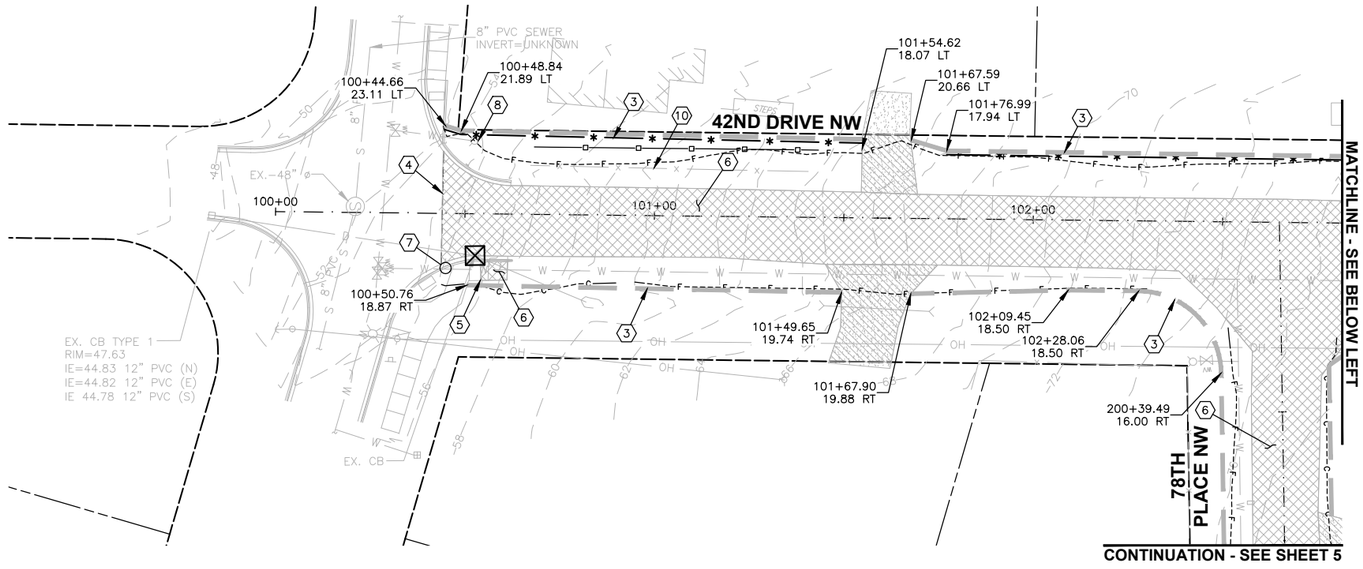
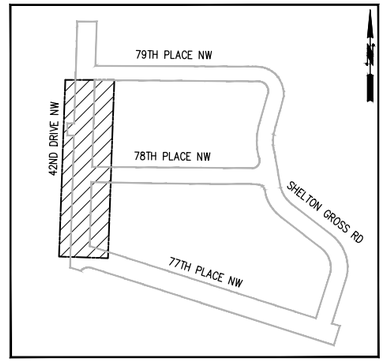
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

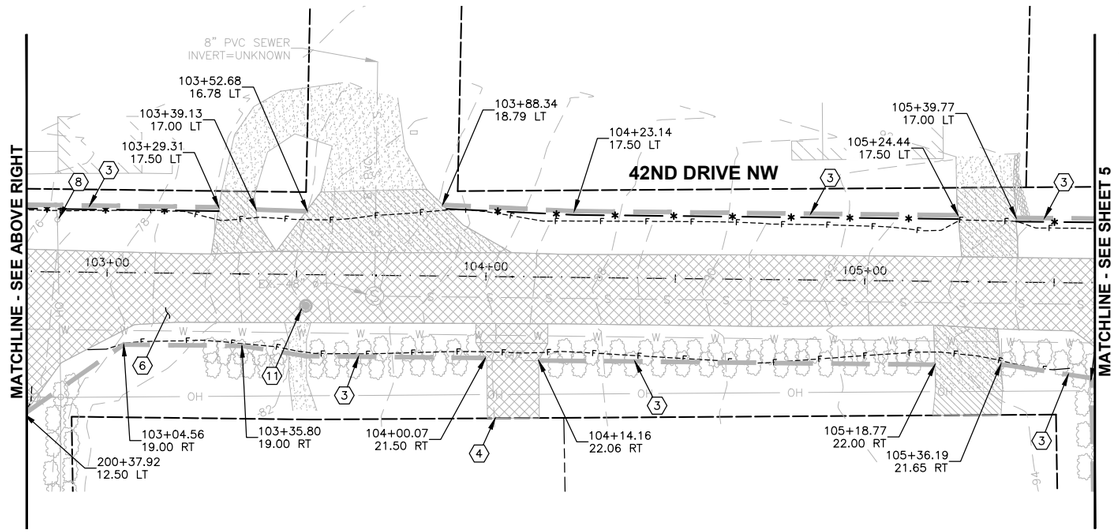
SURVEY CONTROL

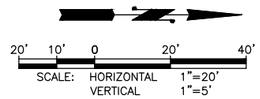
DRAWING NO. 3 OF 32
3





SHEET LOCATION MAP





SITE PREPARATION NOTES:

1. INSTALL STORM DRAIN INLET PROTECTION PER DETAIL SHEET 32. REMOVE AND WASTEHAUL THE INLET PROTECTION ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED.
2. INSTALL SILT FENCE PER DETAIL SHEET 32. REMOVE AND WASTEHAUL FENCING ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED.
3. CLEAR AND GRUB EXISTING TREE, SHRUB AND STUMP. THIS WORK TO BE INCLUDED IN CLEARING AND GRUBBING.
4. SAWCUT EXISTING PAVEMENT AND SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.
5. SAWCUT EXISTING CURB AND/OR SIDEWALK TO NEAREST FULL JOINT AND PROVIDE CLEAN EDGE.
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10. REMOVE WOOD FENCE.
11. PROTECT EXISTING MONUMENT CASE AND COVER.
12. REMOVE AND RESET MAILBOXES. SEE PLAN AND PROFILE SHEETS FOR DETAILS.

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME SITE_PREP_PLANS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 46258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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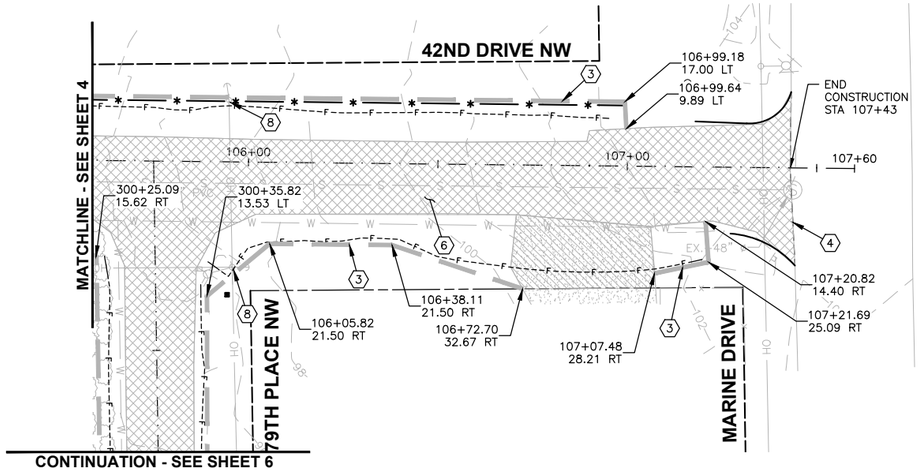
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

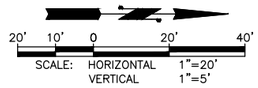
SITE PREPARATION PLAN

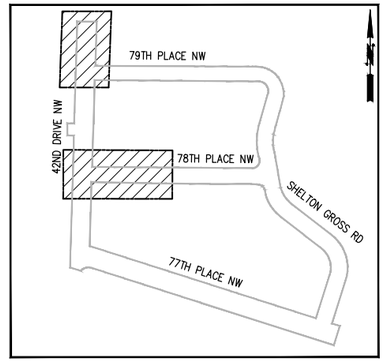
DRAWING NO.
4 OF 32

4

LAYOUT: Site Prep 1 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects CN\99sca\CADD\DWG\Hermosa Beach\Civil PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:32:46 PM







SHEET LOCATION MAP

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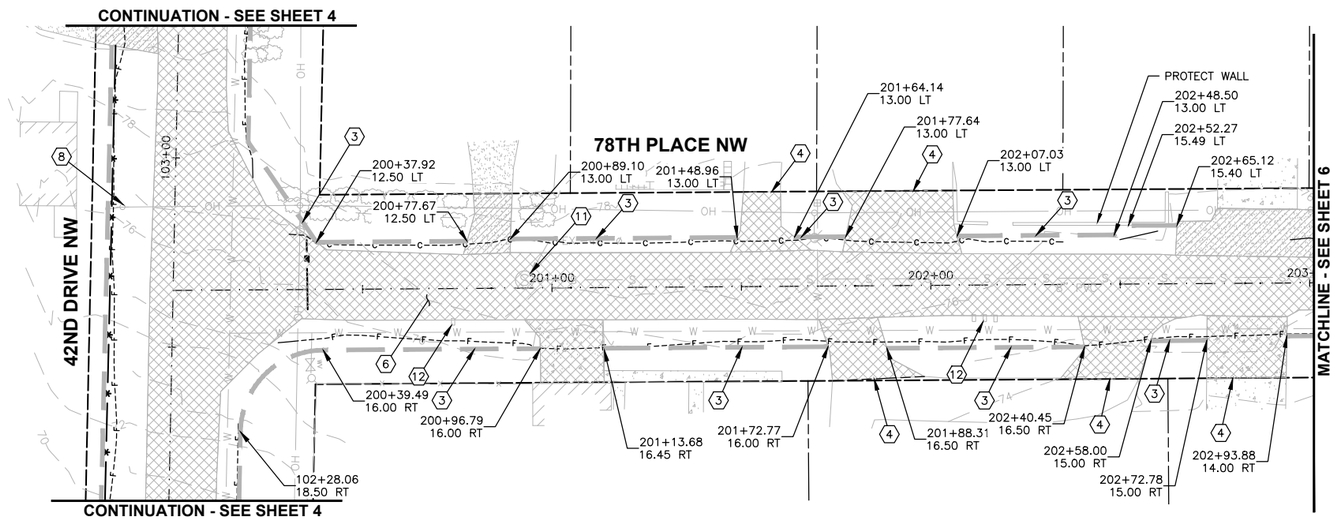

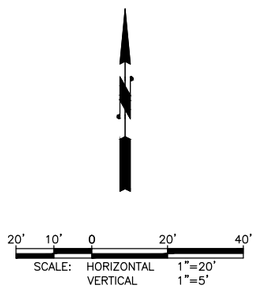

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME SITE PREP PLANS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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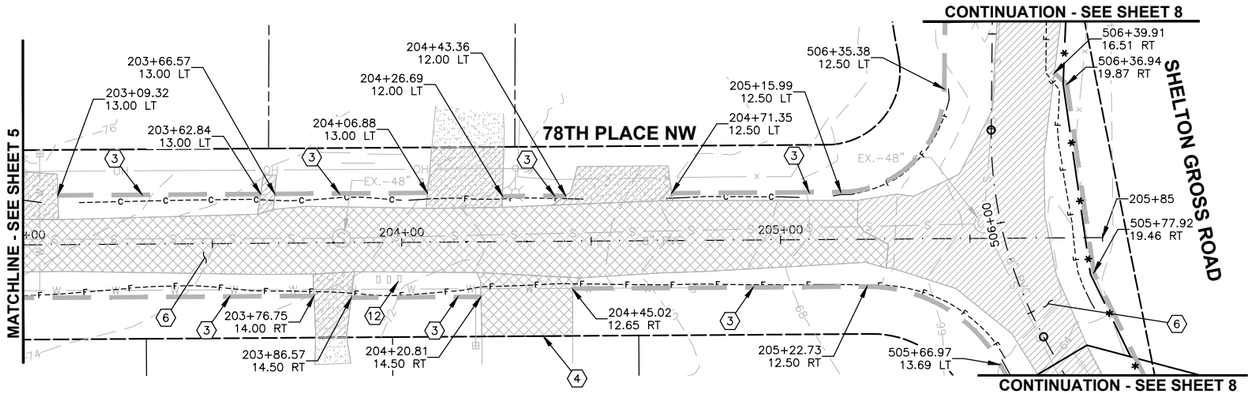
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

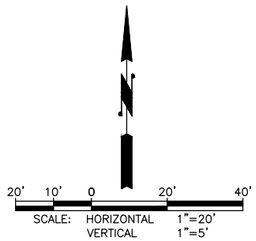
SITE PREPARATION PLAN

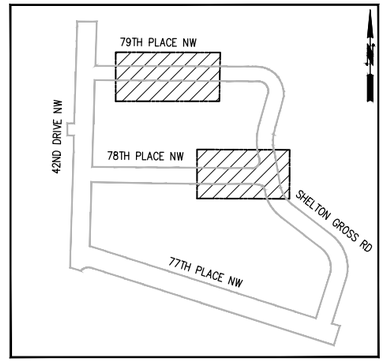
DRAWING NO.
5 OF 32

5

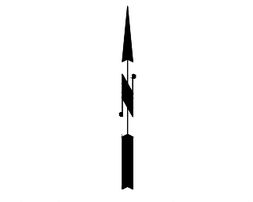
LAYOUT: Site Prep 2 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects CN\99Svcs\CADD\DWG\Hermosa Beach\Civil PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:33:02 PM







SHEET LOCATION MAP



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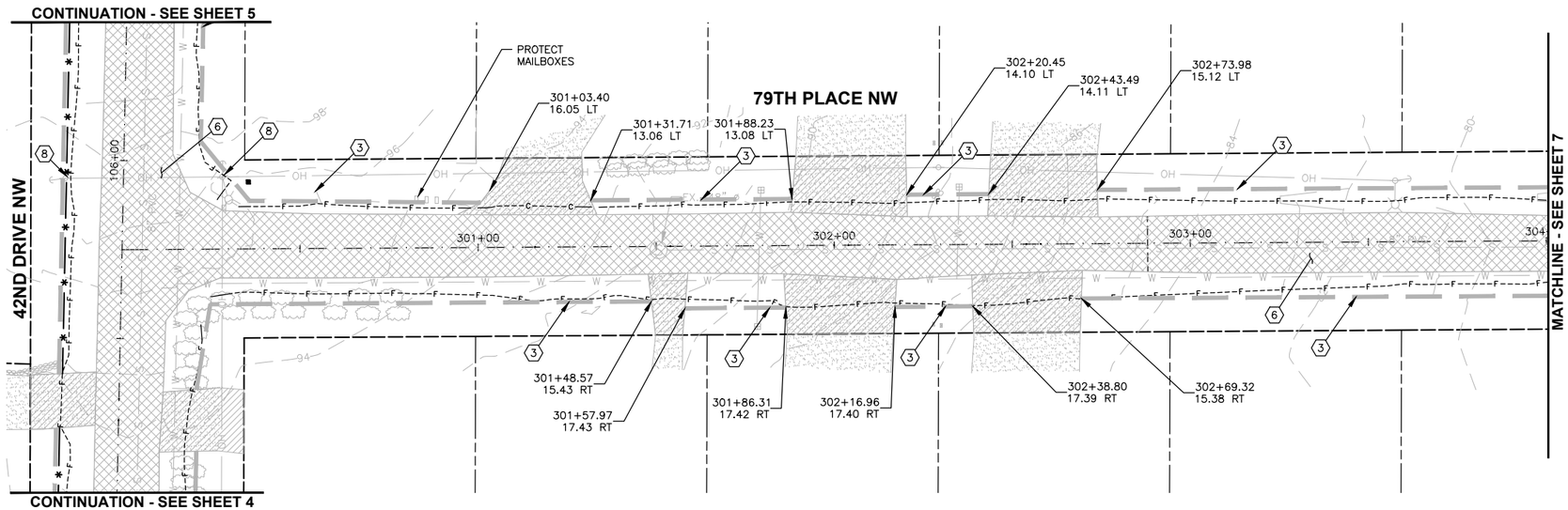

REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME SITE PREP PLANS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER — 3/24/22

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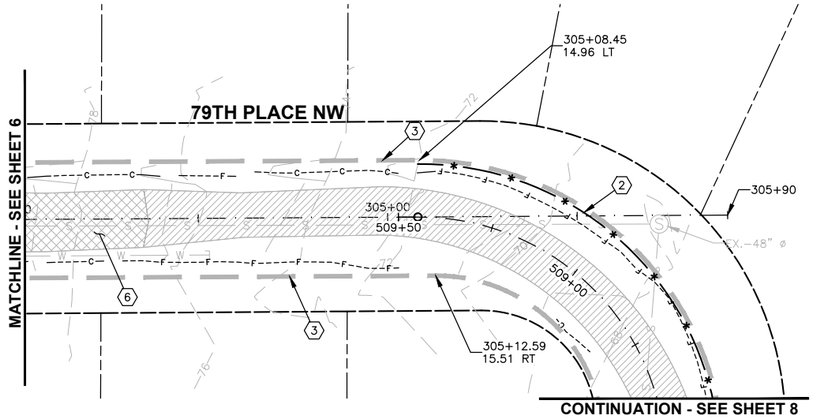
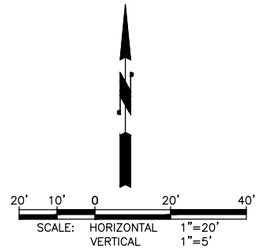
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

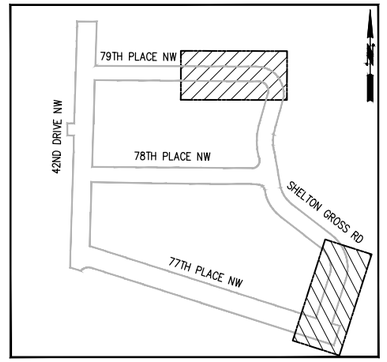
SITE PREPARATION PLAN

DRAWING NO.
6 OF 32

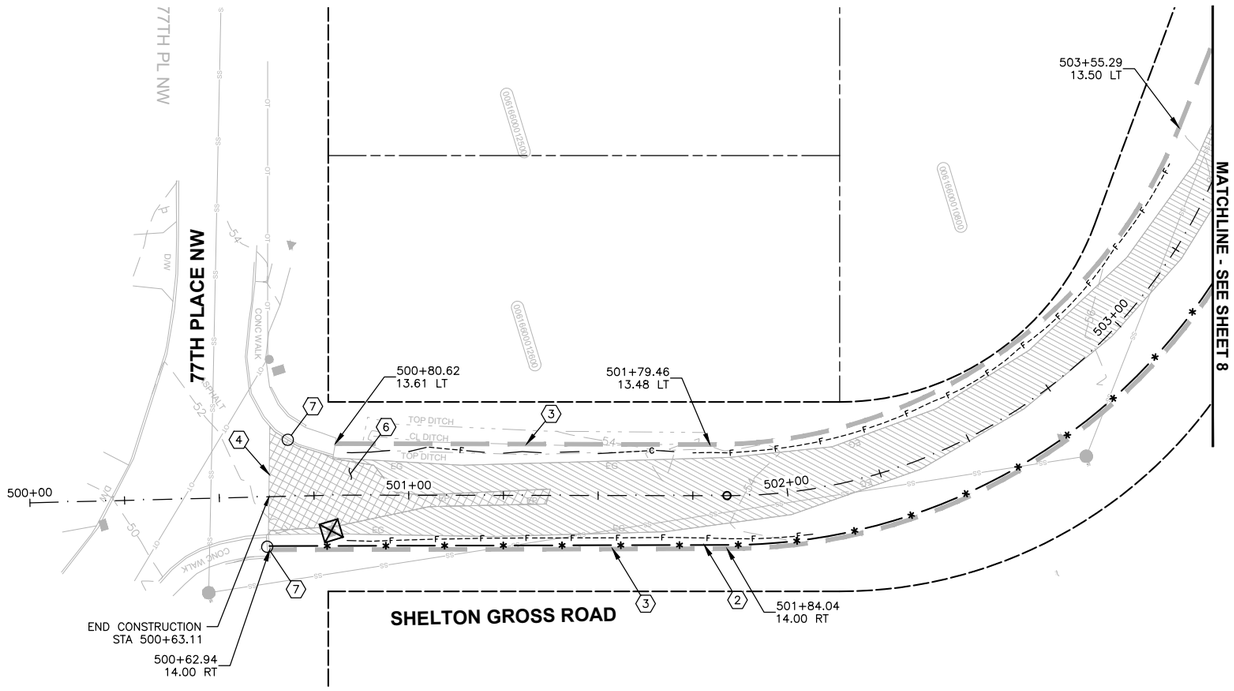
6

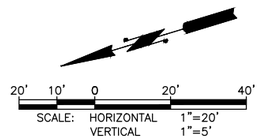






SHEET LOCATION MAP





SITE PREPARATION NOTES:

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	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME SITE PREP PLANS
JOB No. 554-1598-141
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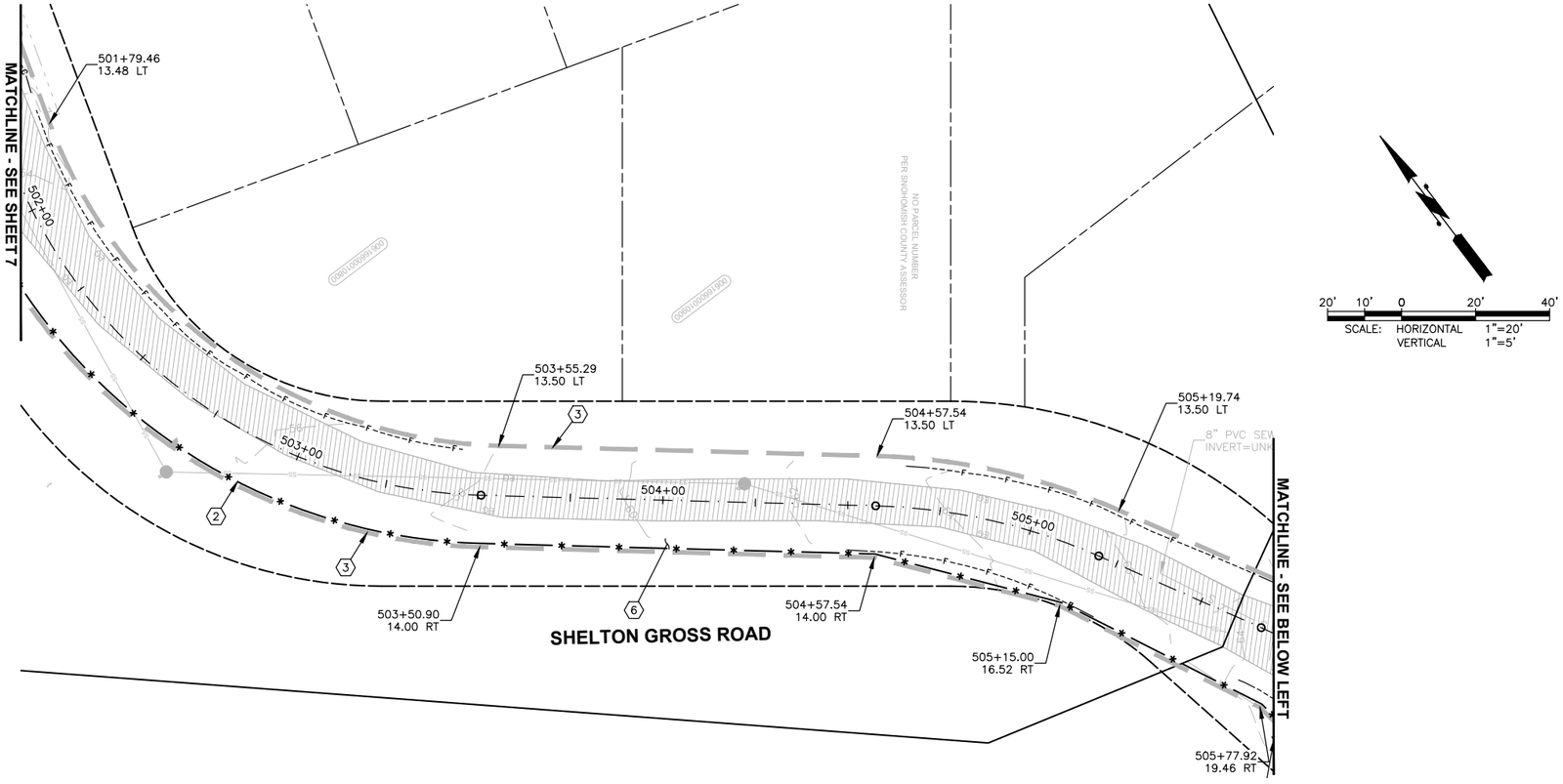
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

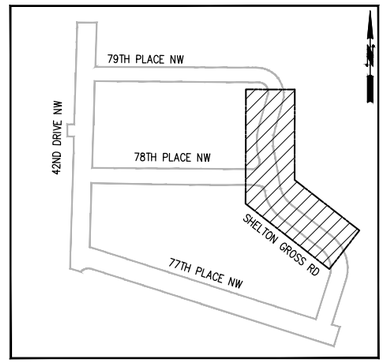
SITE PREPARATION PLAN

DRAWING NO.
7 OF 32

7

LAYOUT: Site Prep 4 PATH: \\parametrix.com\gmx\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects ON\99Svcs\CADD\DWG\Hermosa Beach\Civil PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:33:34 PM





SHEET LOCATION MAP

SITE PREPARATION NOTES:

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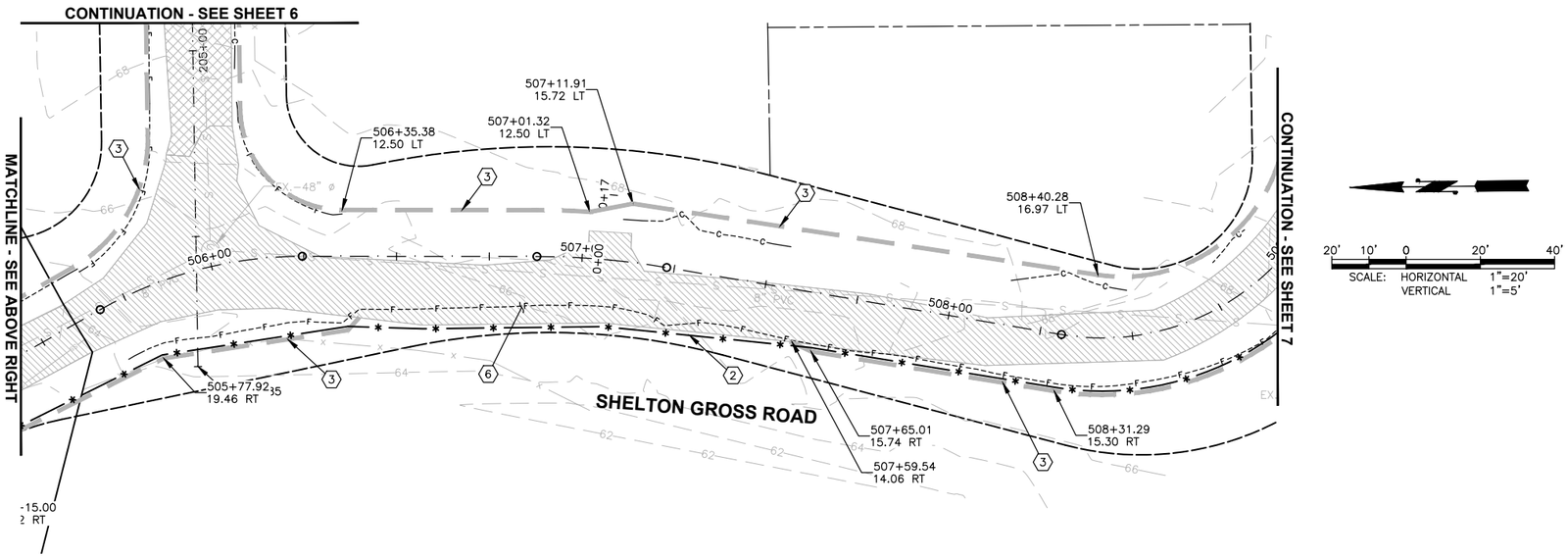

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME SITE PREP PLANS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
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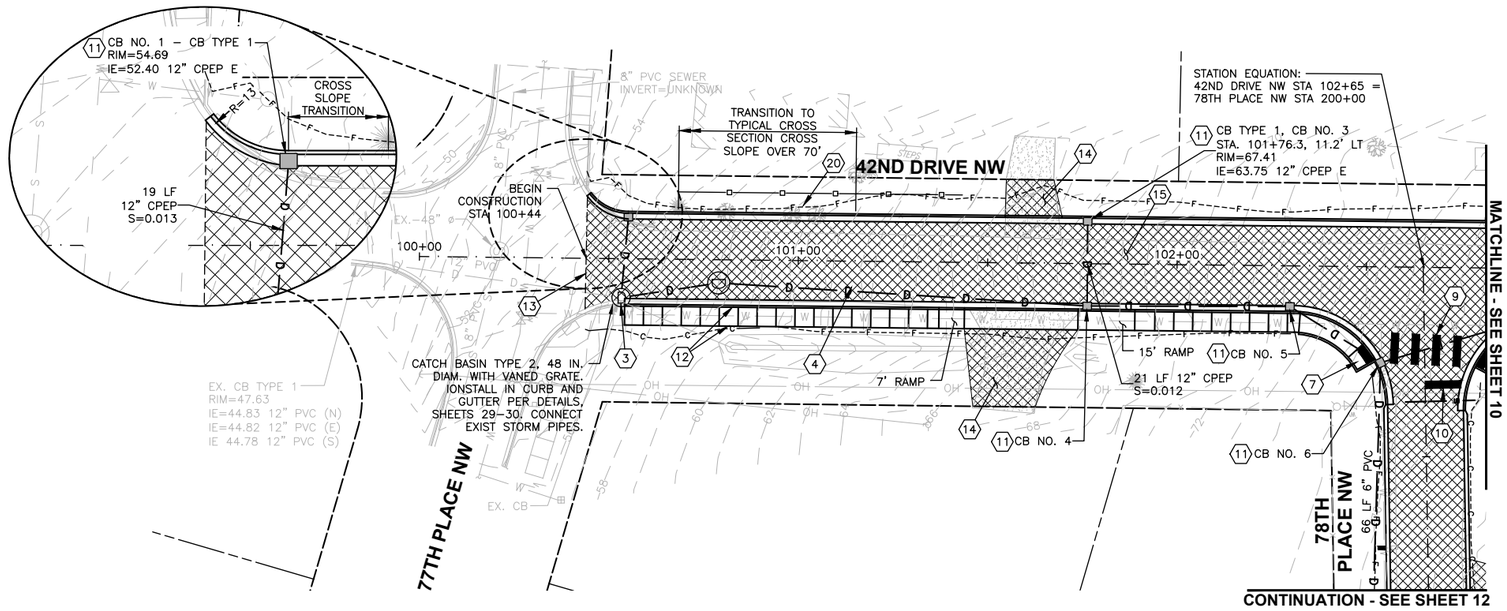
P 206.394.3700
WWW.PARAMETRIX.COM

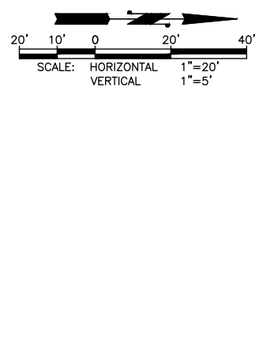
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

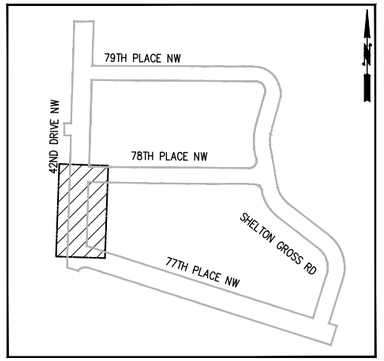
SITE PREPARATION PLAN

DRAWING NO.
8 OF 32

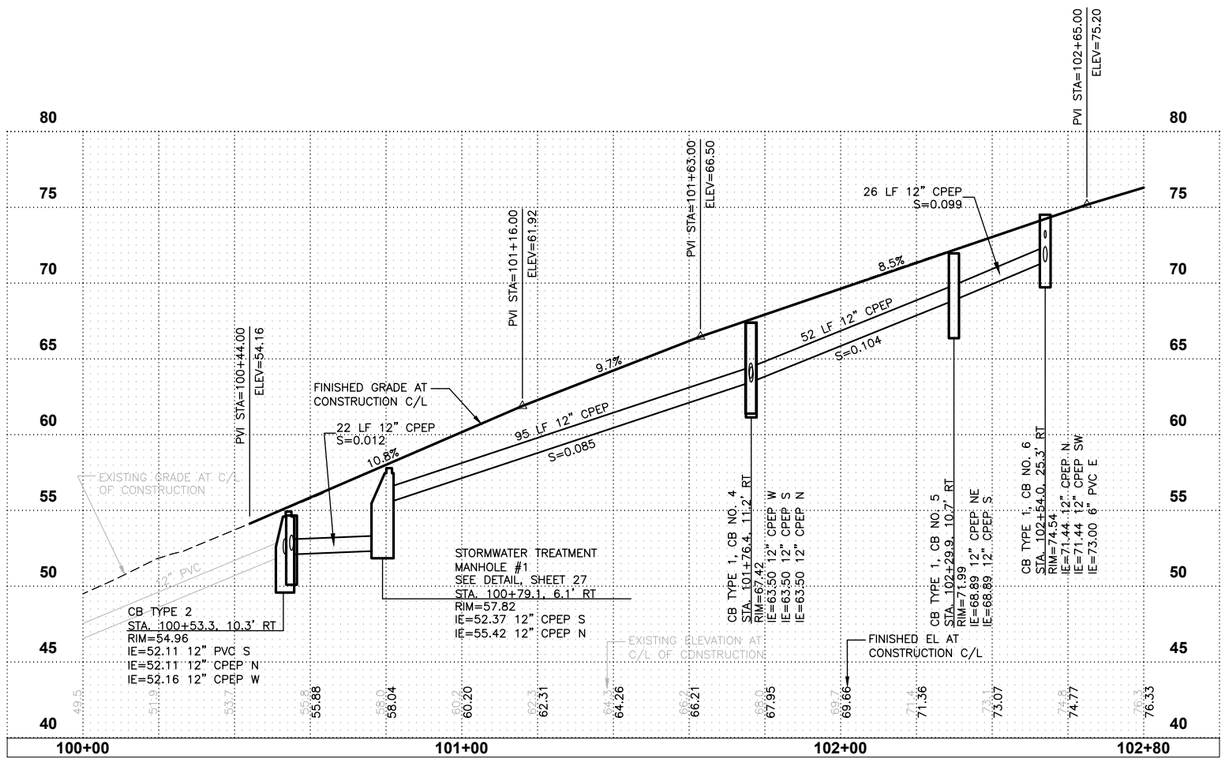
8







SHEET LOCATION MAP



CONSTRUCTION NOTES:

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3. CONNECT NEW STORM PIPE TO EXIST STORM STRUCTURE PER DETAIL, SHEET 30.
4. INSTALL STORMWATER TREATMENT MANHOLE PER DETAIL, SHEETS 27–28.
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19. CONSTRUCT SANITARY SEWER CLEANOUT PER DETAIL, SHEET 30.
20. INSTALL WOODEN FENCE. MATCH STYLE OF FENCE REMOVED ON SHEET 4.

	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554–1598–141
DATE JULY 2021

JOHN LEWIS WRIGHT III — STATE OF WASHINGTON — 46258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
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WWW.PARAMETRIX.COM

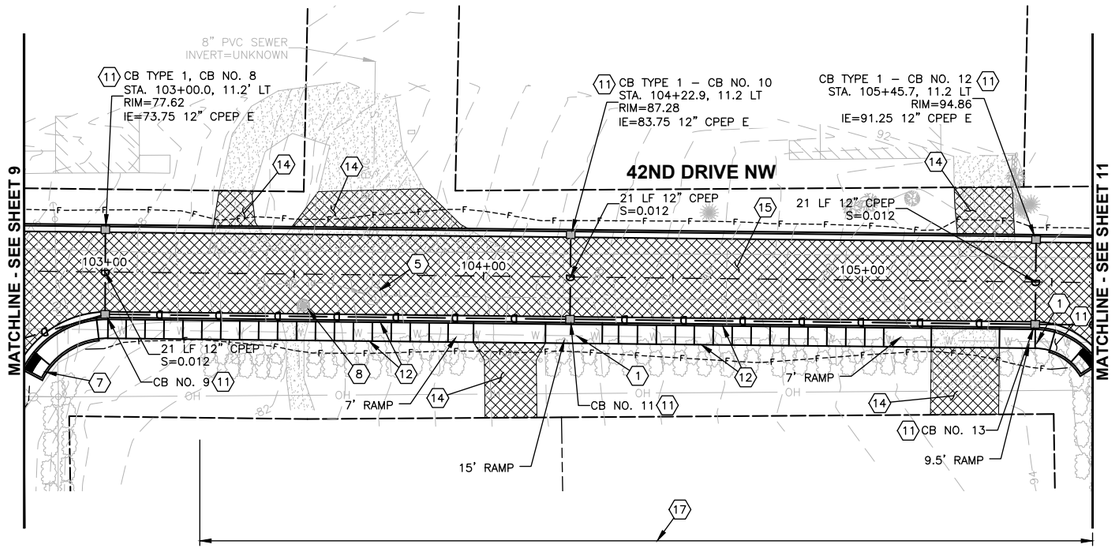
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

PLAN & PROFILE 42ND DRIVE NW

DRAWING NO. 9 OF 32

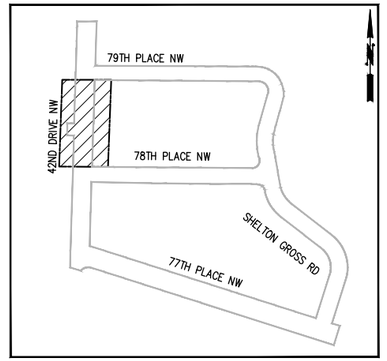
9

LAYOUT: Plan & Profile 3 PATH: U:\PSO\Projects\Clients\1598–TulalipTribes\554–1598–141 Paving Projects ON\99Svcs\CADD\DWG\Hermosa Beach PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 8:54:13 PM



20' 10' 0 20' 40'

SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=5'



SHEET LOCATION MAP

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REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 46858 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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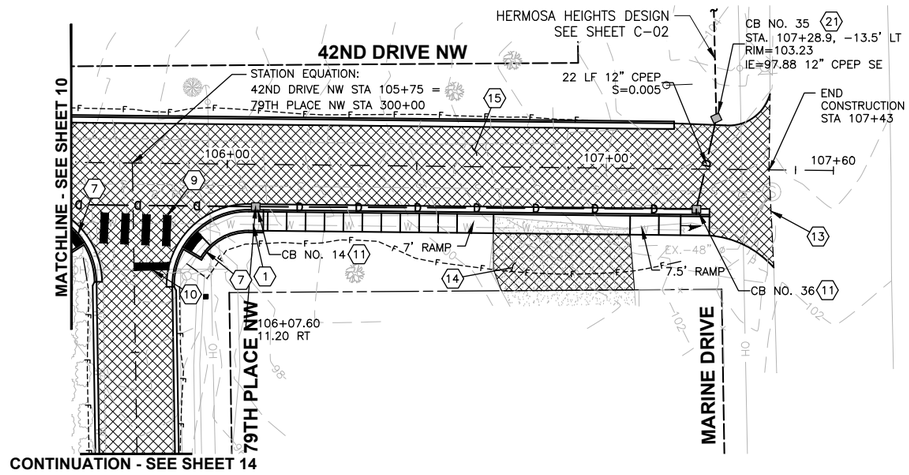
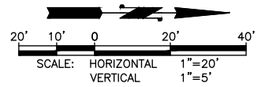
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

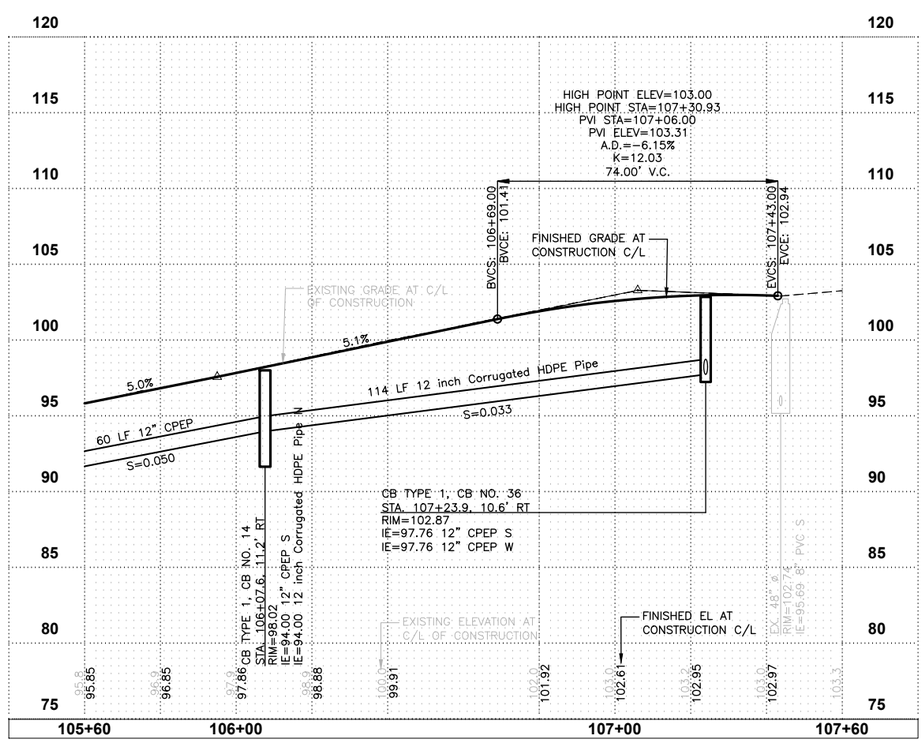
PLAN & PROFILE 42ND DRIVE NW

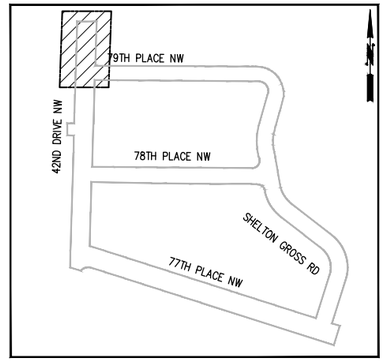
DRAWING NO.
10 OF 32

10









SHEET LOCATION MAP

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21. CATCH BASIN TYPE 1L WITH VANED GRATE. INSTALL IN ASPHALT WEDGE OR CURB AND GUTTER PER DETAILS, SHEETS 26, 29–30.

	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48259 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

Parametrix
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P 206.394.3700
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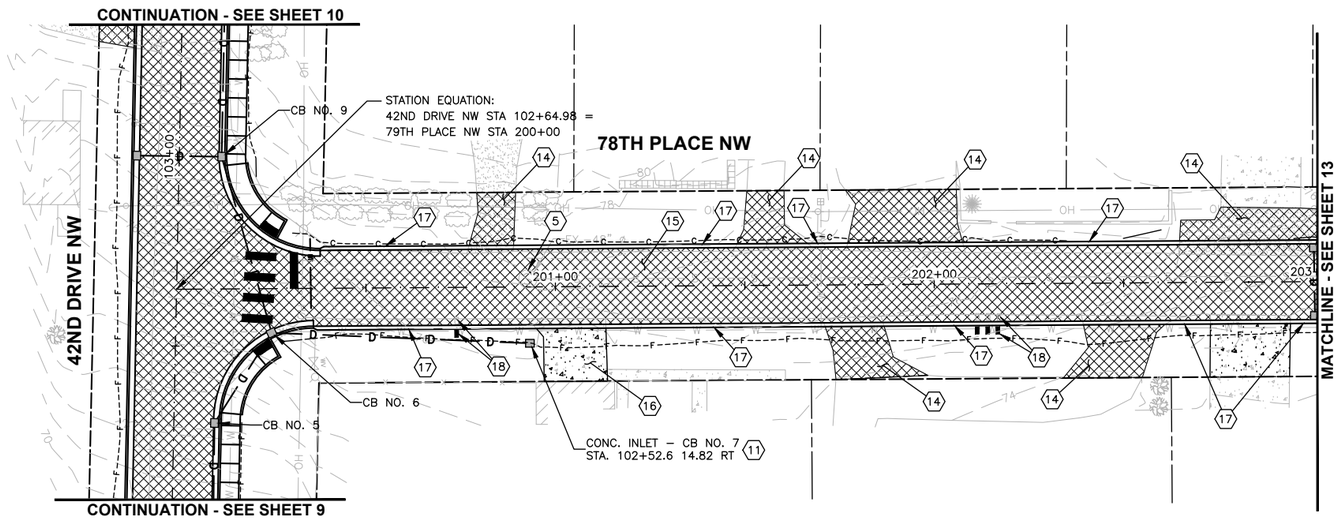
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

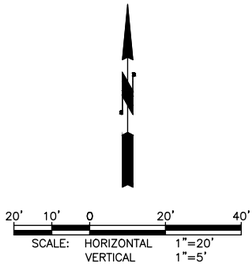
PLAN & PROFILE 42ND DRIVE NW

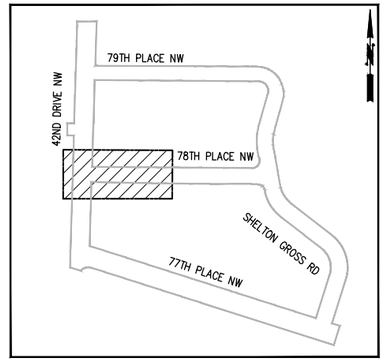
DRAWING NO. 11 OF 32

11

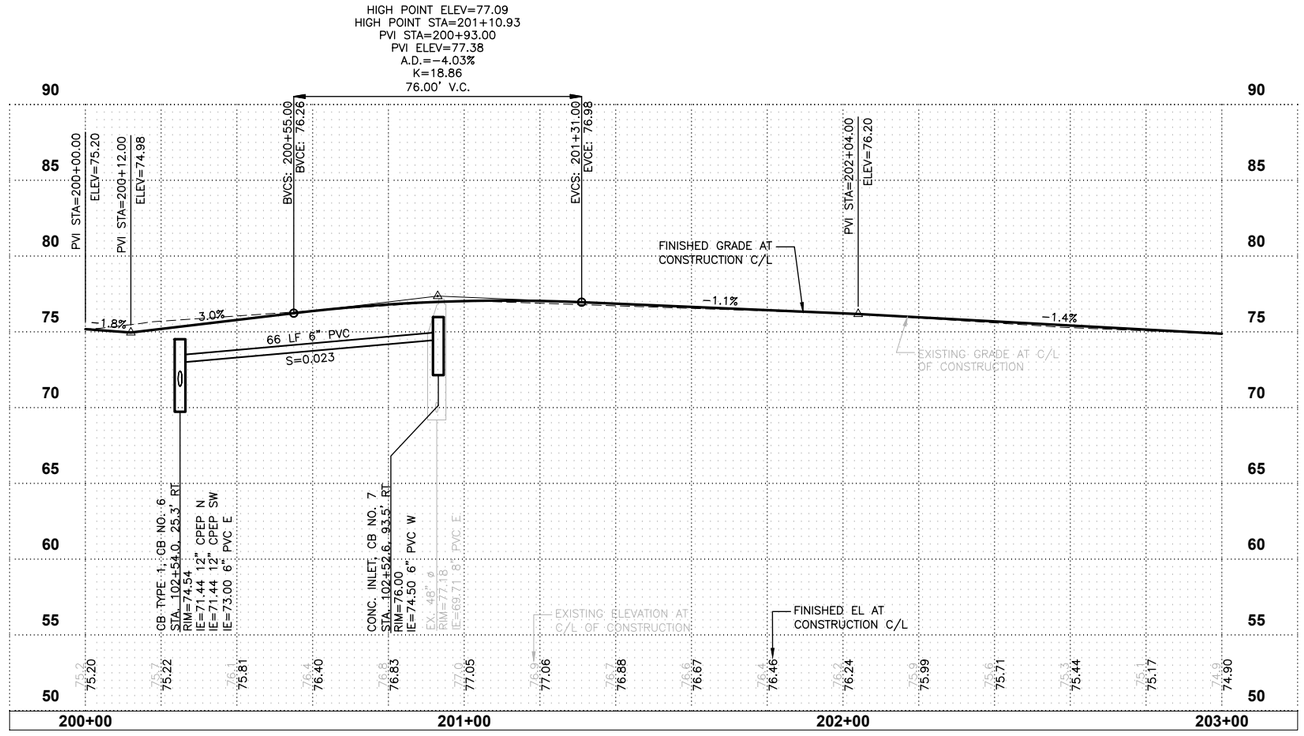
PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 8:58:34 PM
PATH: U:\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects CN\99Svcs\CADD\DWG\Hermosa Beach
LAYOUT: Plan & Profile 5







SHEET LOCATION MAP



CONSTRUCTION NOTES:

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REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554–1598–141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
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P 206.394.3700
WWW.PARAMETRIX.COM

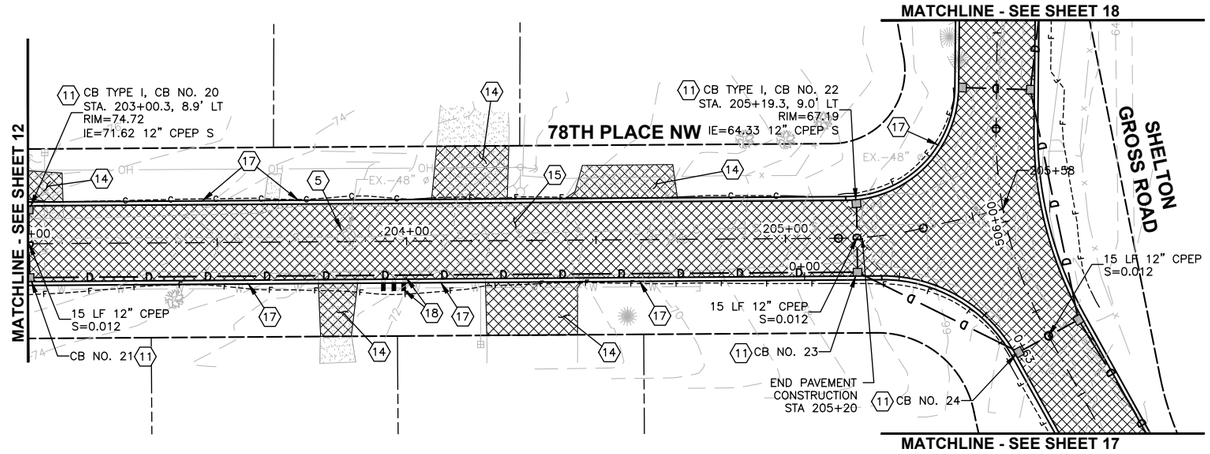
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

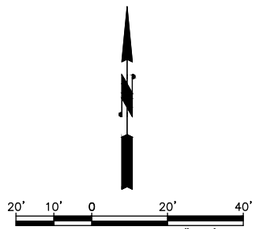
PLAN & PROFILE 78TH PLACE NW

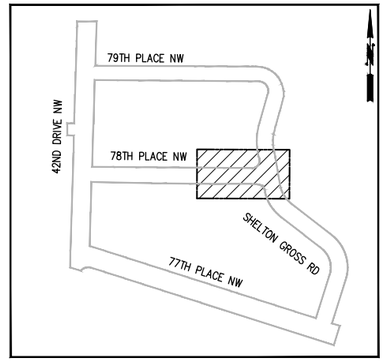
DRAWING NO. 12 OF 32

12

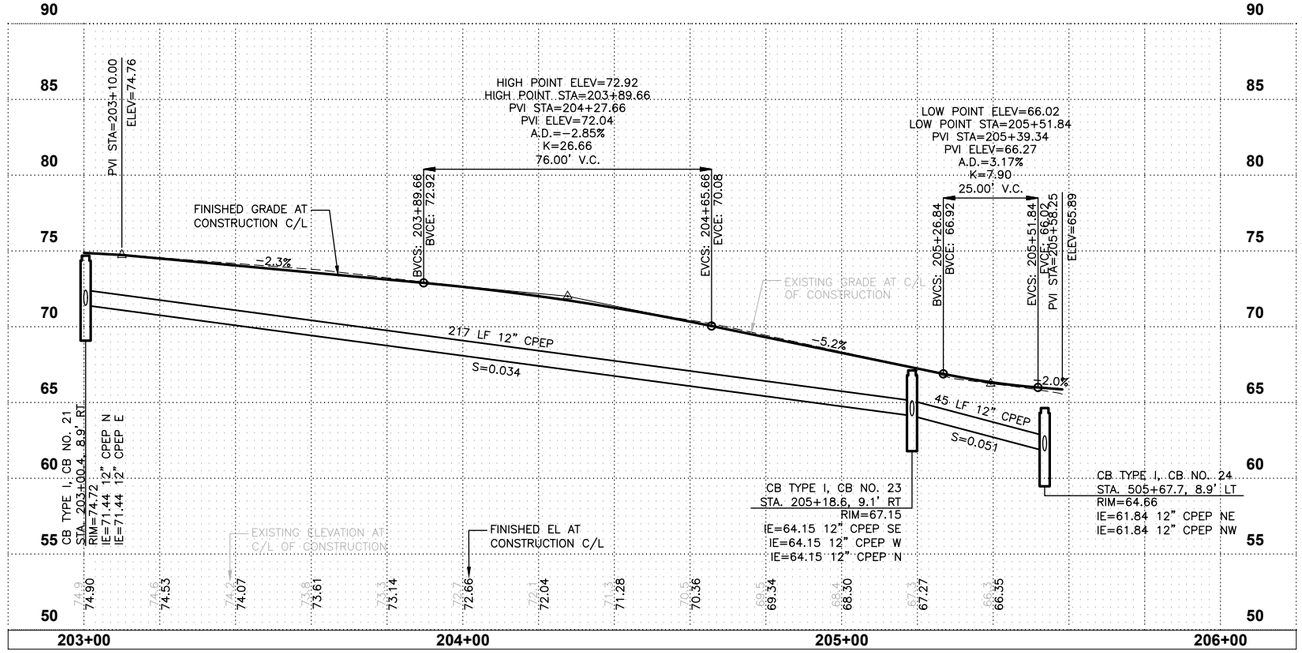
LAYOUT: Plan & Profile 6 PATH: U:\PSO\Projects\Clients\1598–TulalipTribes\554–1598–141 Paving Projects CN\99Svcs\CADD\DWG\Hermosa Beach PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:01:09 PM







SHEET LOCATION MAP



CONSTRUCTION NOTES:

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	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
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JOB No. 554-1598-141
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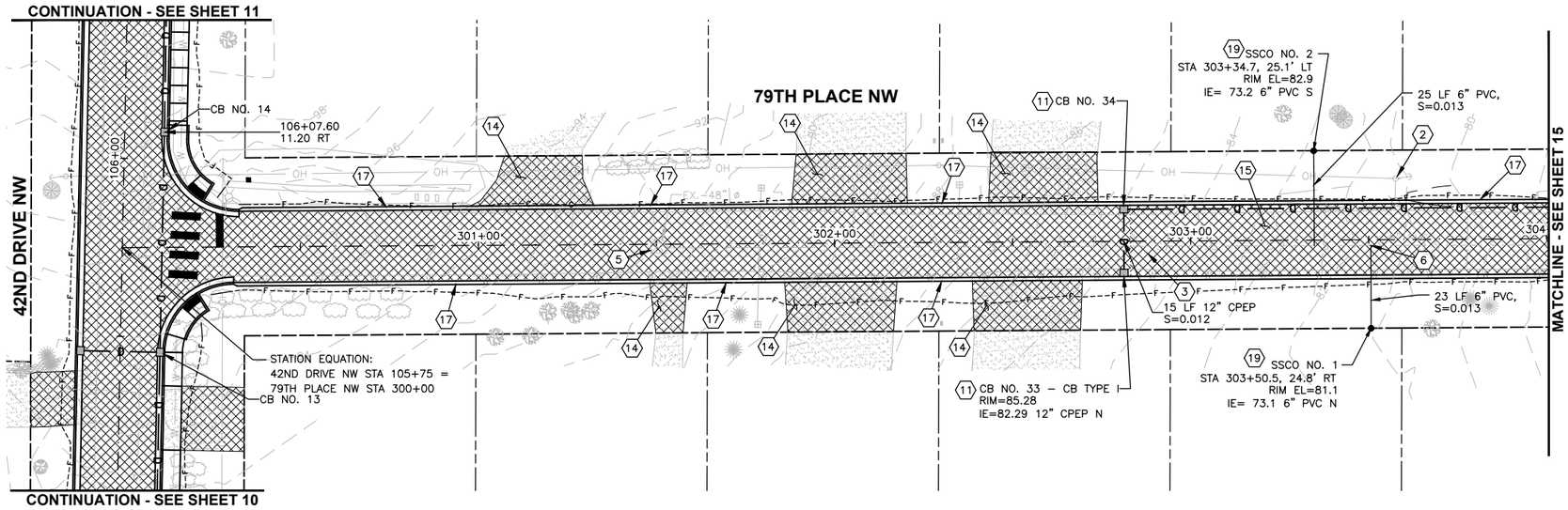
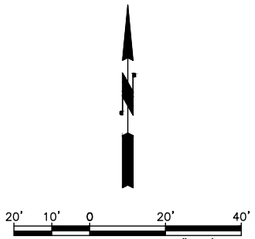
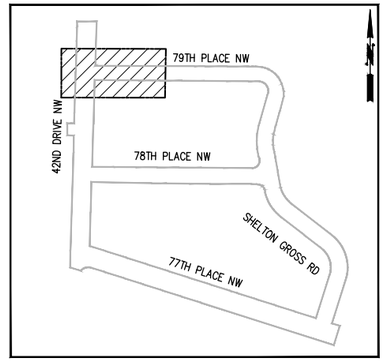
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

PLAN & PROFILE 78TH PLACE NW

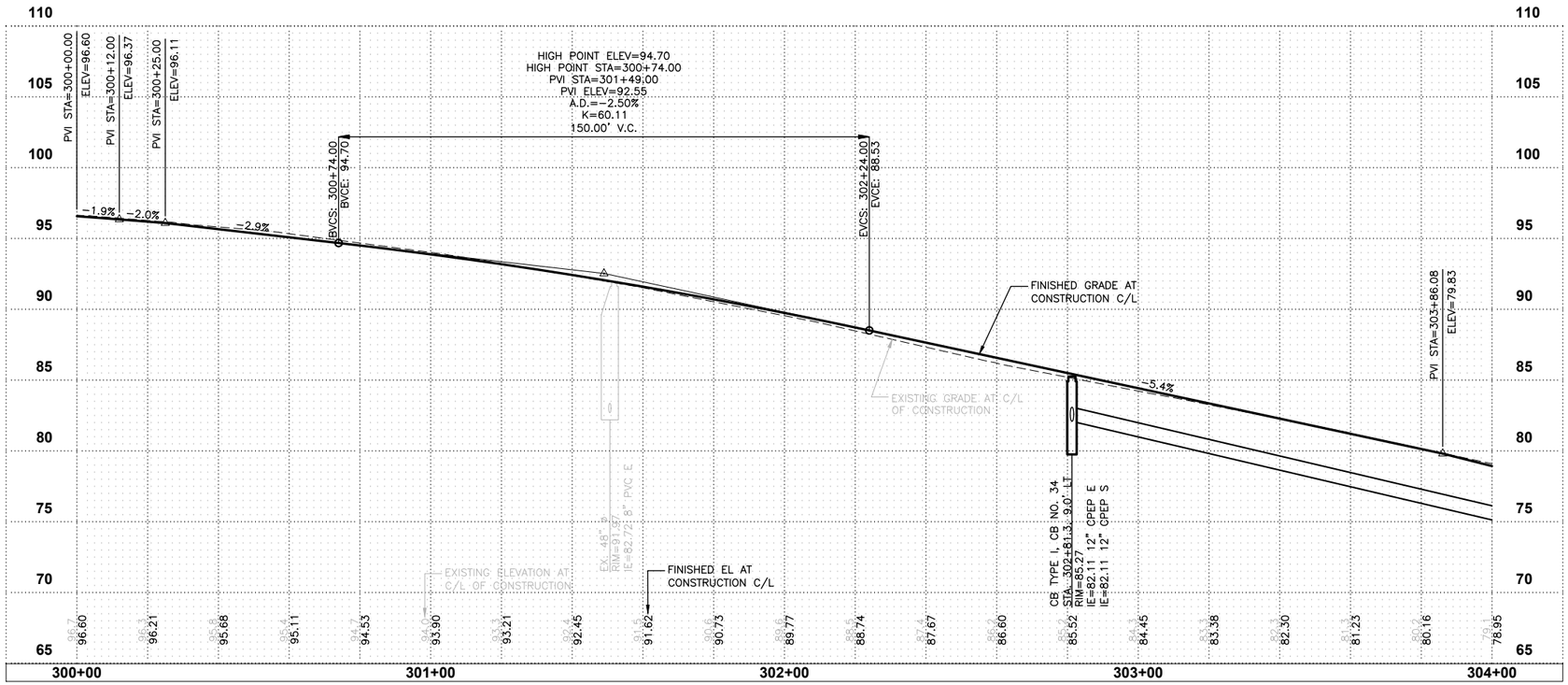
DRAWING NO. 13 OF 32
13







SHEET LOCATION MAP



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12. CEMENT CONCRETE SIDEWALK AND TRAFFIC CURB AND GUTTER PER DETAILS, SHEET 25.
13. BUTT JOINT PER DETAIL, SHEET 25.
14. CONSTRUCT ASPHALT DRIVEWAY ENTRANCE PER DETAIL, SHEET 22.
15. ASPHALT PAVEMENT AND SUBGRADE PER CROSS SECTIONS, SHEET 19.
16. CONSTRUCT CEMENT CONC. DRIVEWAY ENTRANCE PER DETAIL, SHEET 22.
17. ASPHALT WEDGE CURB PER DETAIL, SHEET 25.
18. REMOVE, RELOCATE AND REINSTALL MAILBOX PER DETAIL, SHEET 25.
19. CONSTRUCT SANITARY SEWER CLEANOUT PER DETAIL, SHEET 30.
20. INSTALL WOODEN FENCE. MATCH STYLE OF FENCE REMOVED ON SHEET 4.

	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT II — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

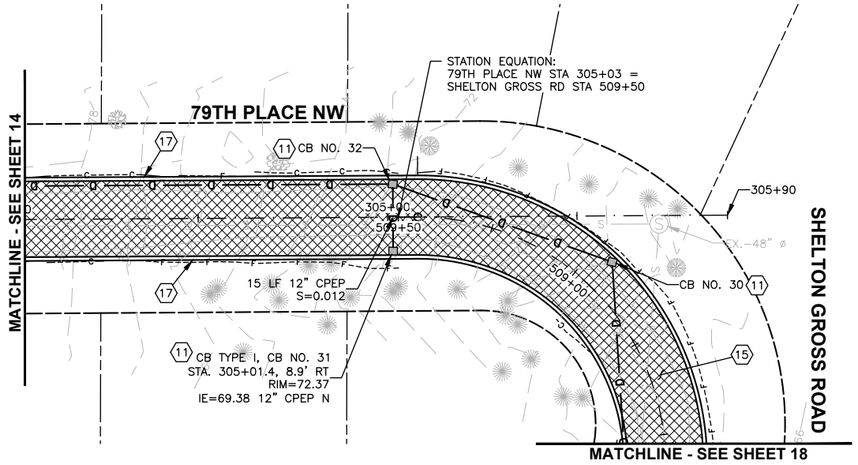
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
719 2ND AVENUE, SUITE 200 | SEATTLE, WA 98104
P 206.394.3700
WWW.PARAMETRIX.COM

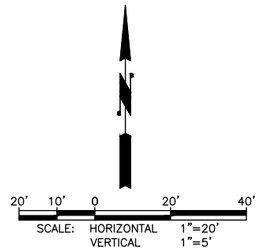
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

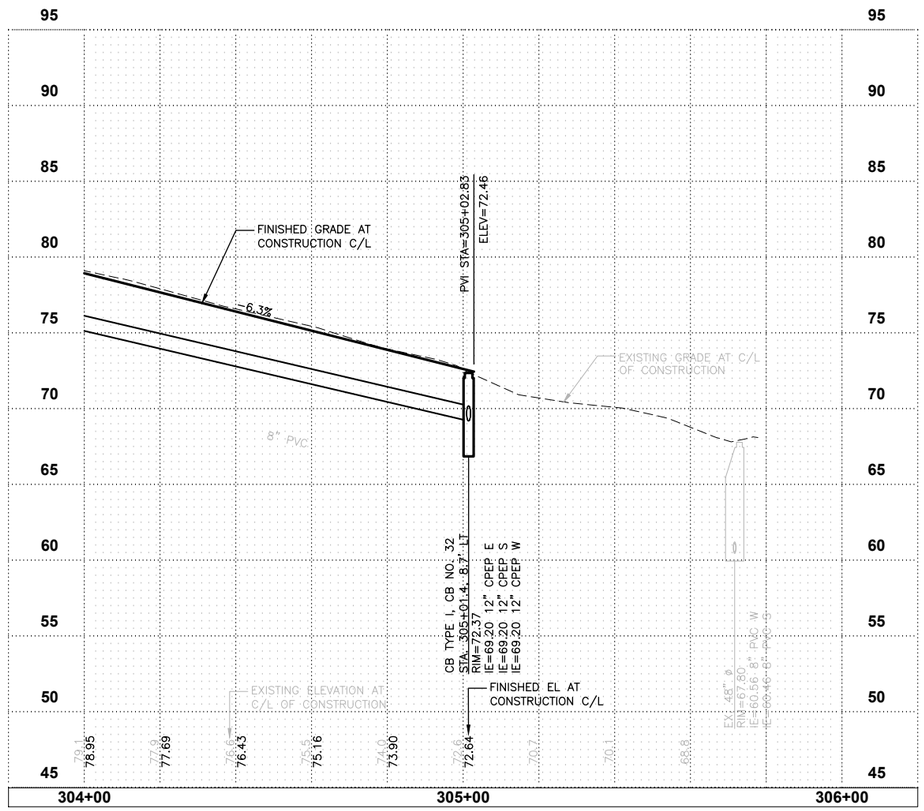
PLAN & PROFILE 79TH PLACE NW

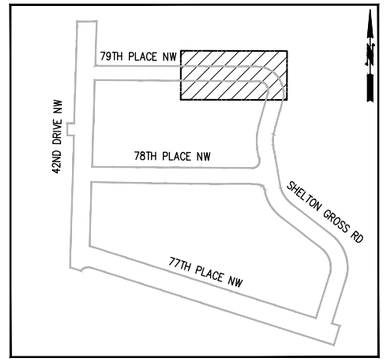
DRAWING NO. 14 OF 32

14









SHEET LOCATION MAP

CONSTRUCTION NOTES:

1. CAUTION: POTENTIAL UTILITY CONFLICT. VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXIST UTILITY.
2. PROTECT EXIST UTILITY POLE DURING CONSTRUCTION. SEE GENERAL NOTE 2, SHEET 2.
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	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554–1598–141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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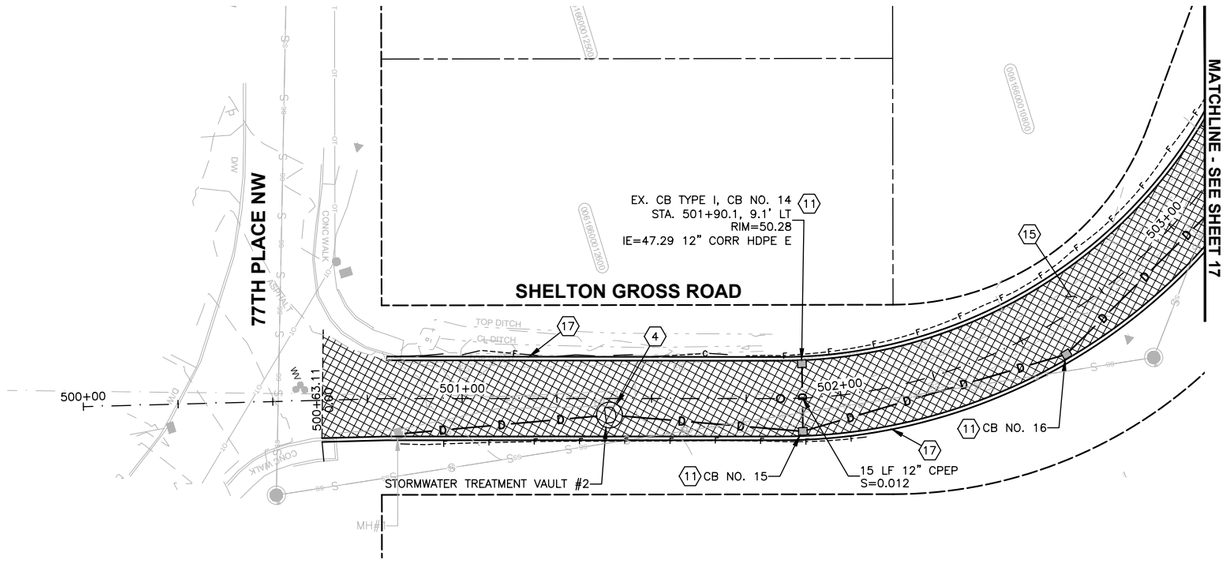
P 206.394.3700
WWW.PARAMETRIX.COM

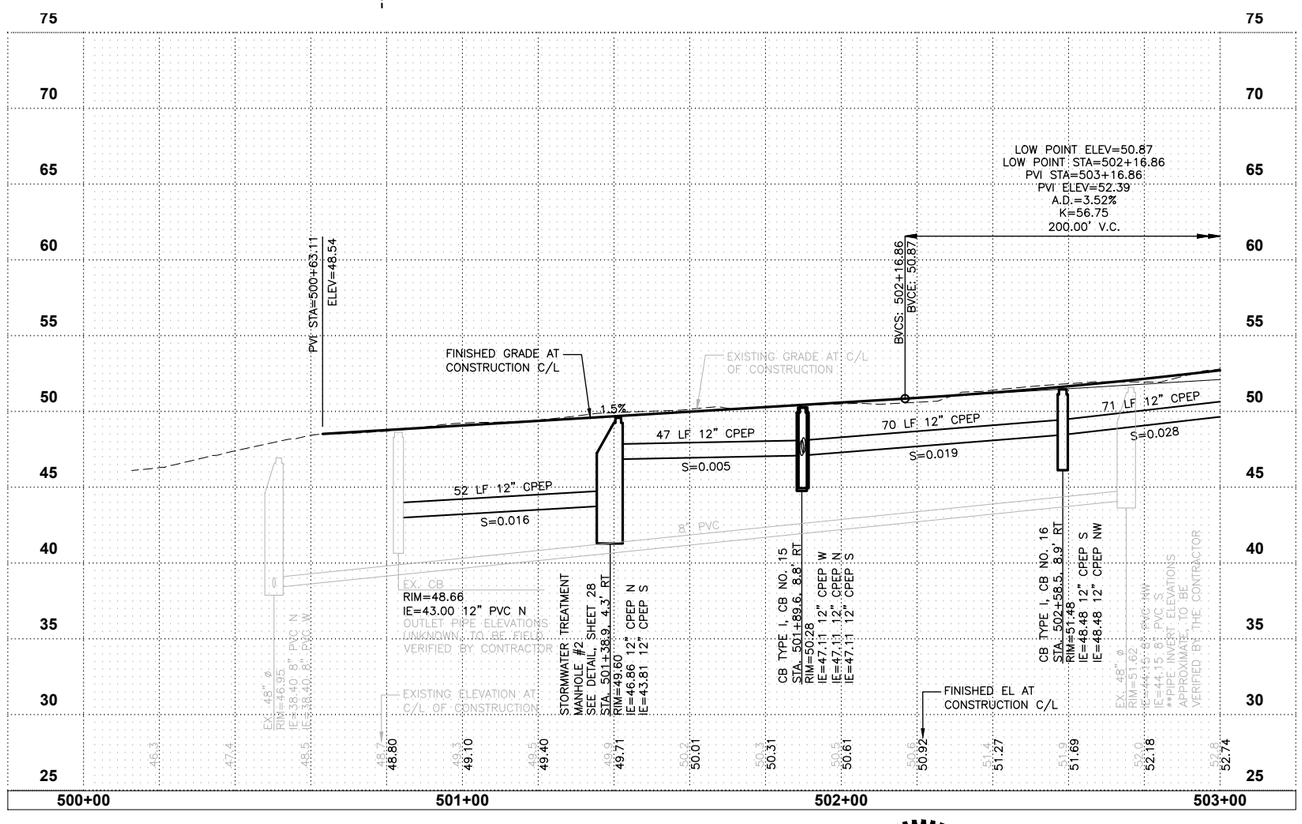
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

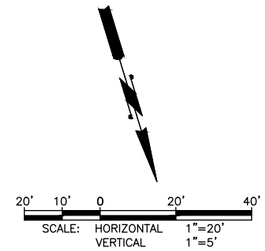
PLAN & PROFILE 79TH PLACE NW

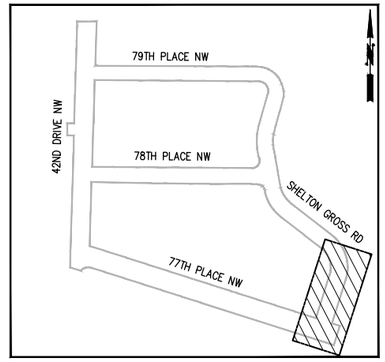
DRAWING NO. 15 OF 32

15









SHEET LOCATION MAP

CONSTRUCTION NOTES:

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REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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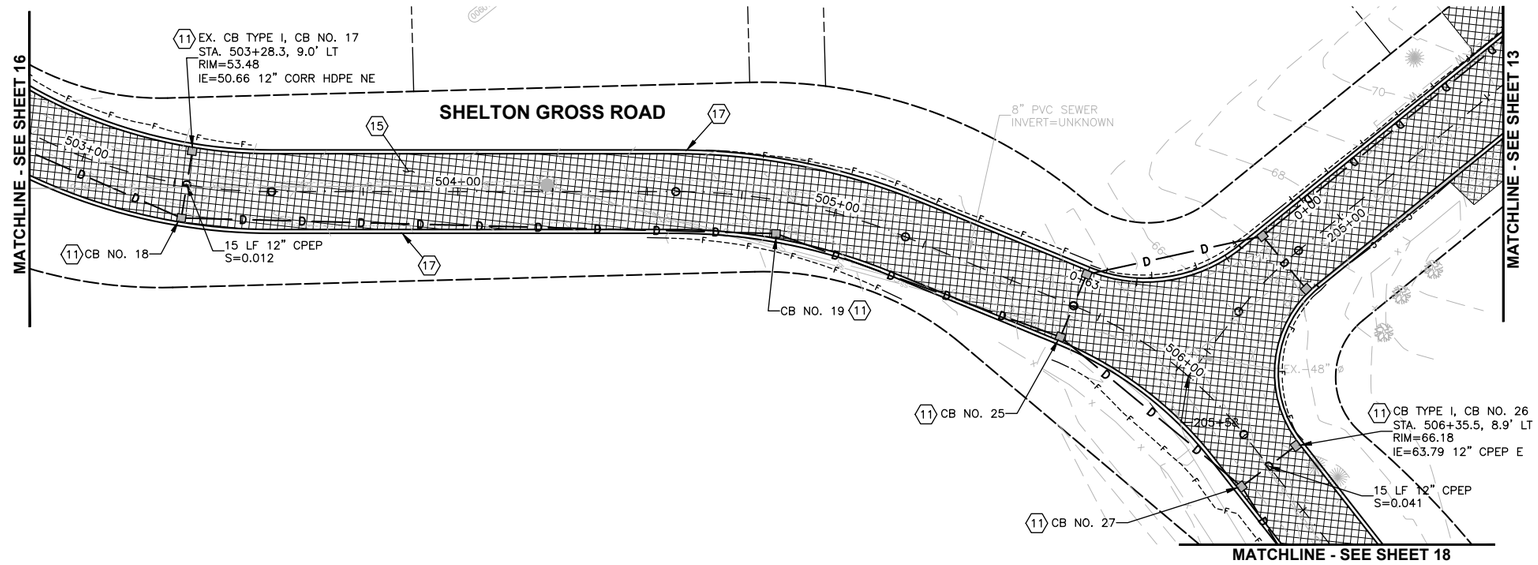
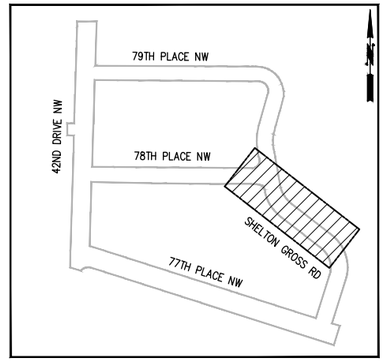
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

PLAN & PROFILE SHELTON GROSS ROAD

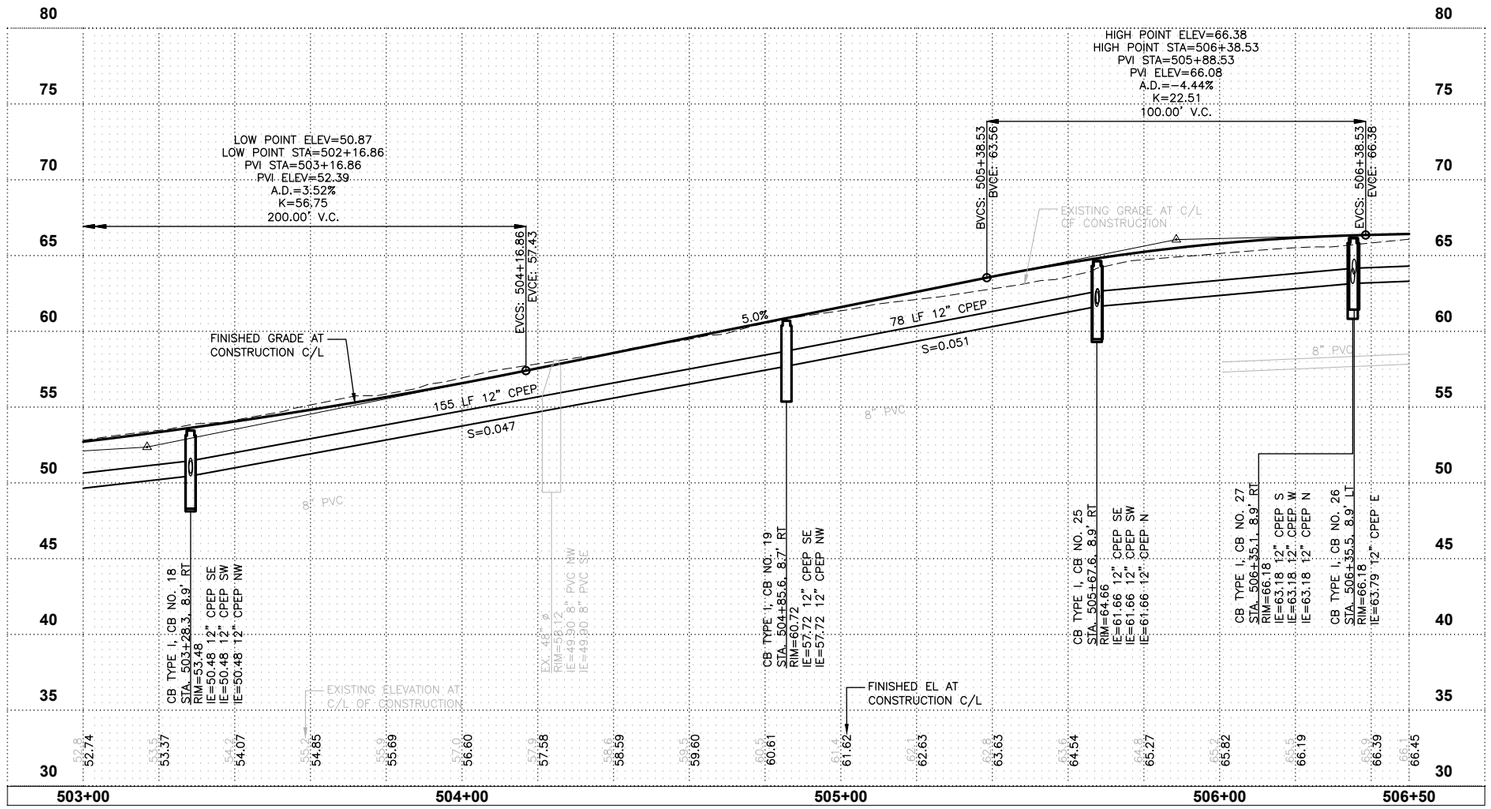
DRAWING NO. 16 OF 32

16





SHEET LOCATION MAP



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	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

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JOB No. 554–1598–141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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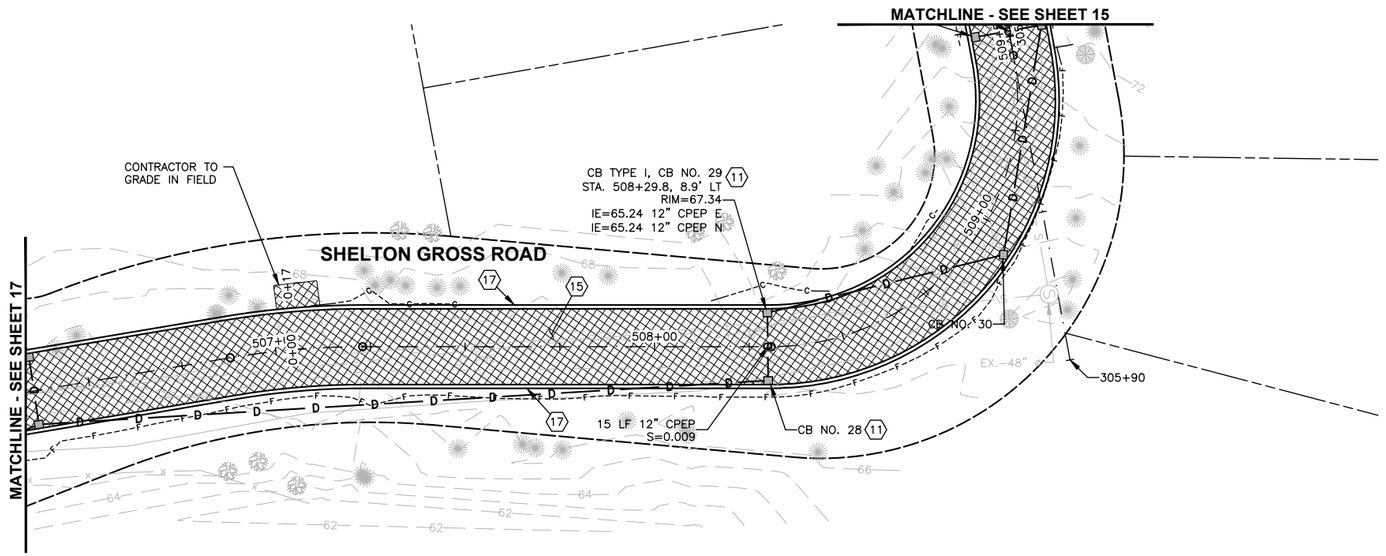
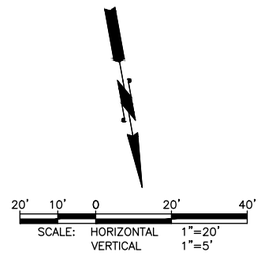
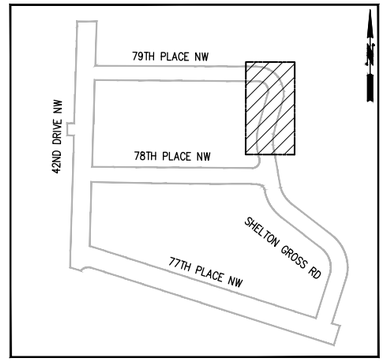
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

PLAN & PROFILE SHELTON GROSS ROAD

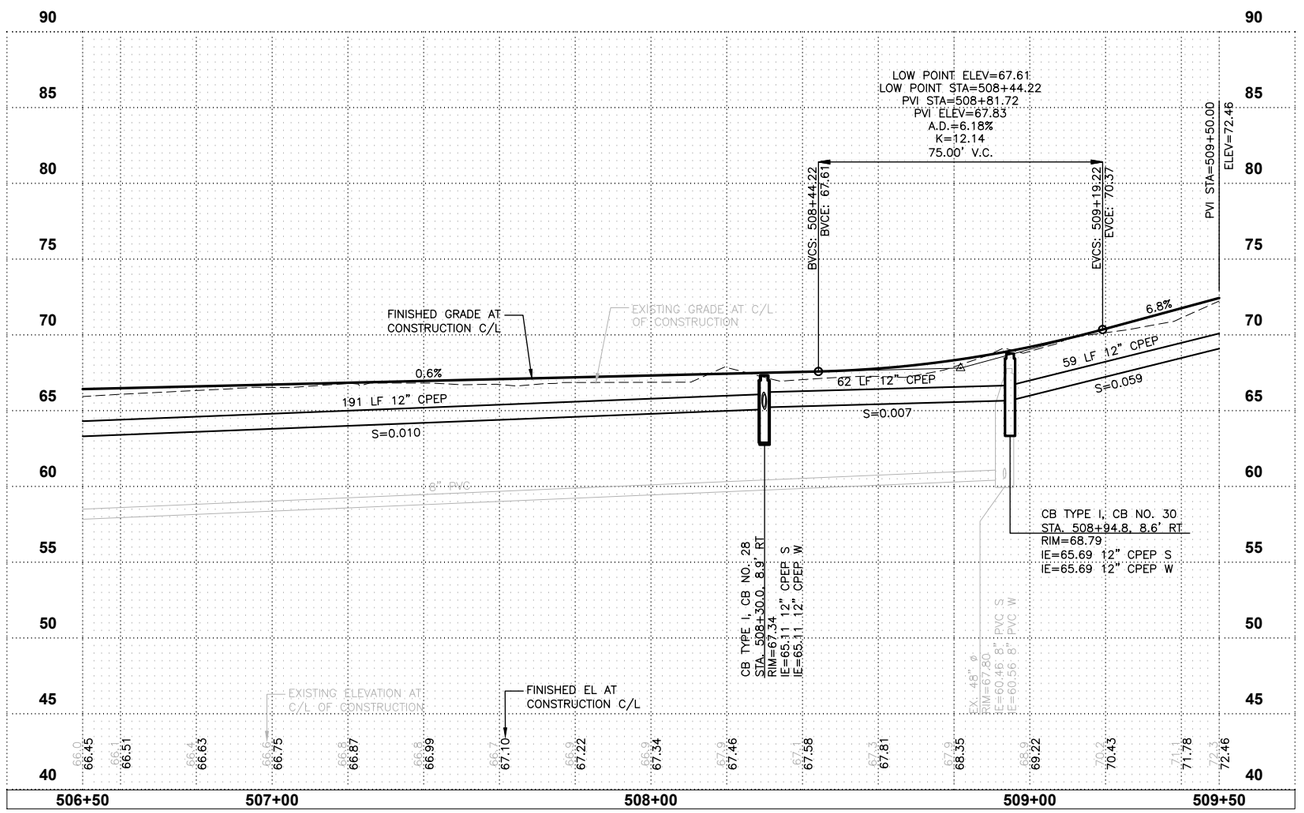
DRAWING NO. 17 OF 32
17







SHEET LOCATION MAP



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	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

Parametrix
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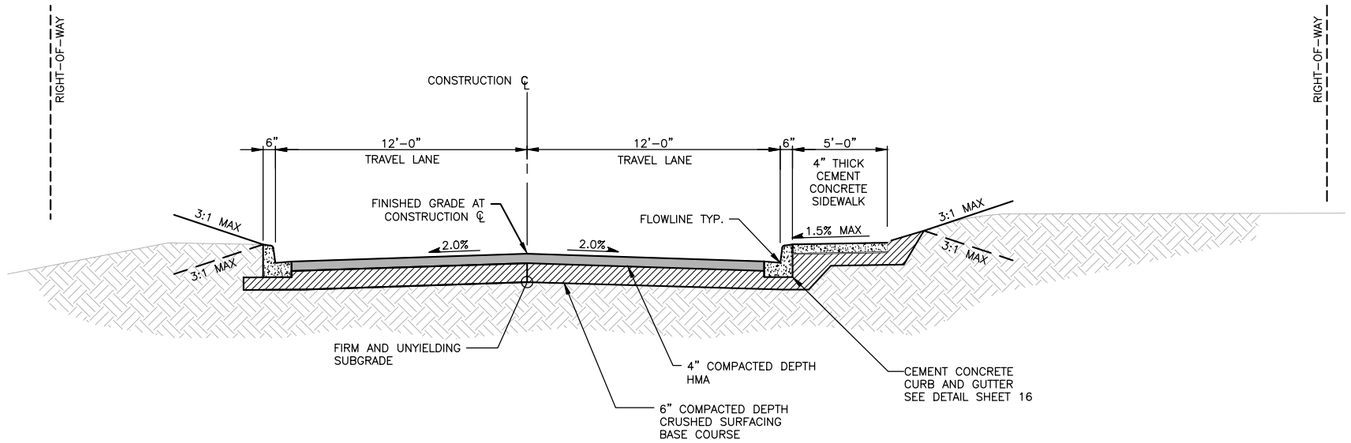
P 206.394.3700
WWW.PARAMETRIX.COM

PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

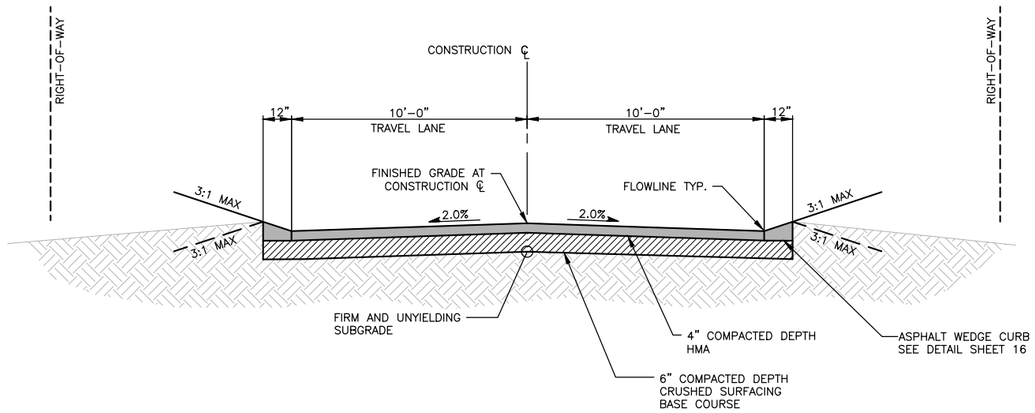
PLAN & PROFILE
SHELTON GROSS ROAD

DRAWING NO.
18 OF 32

18



CROSS SECTION - 42ND DRIVE NW



TYPICAL CROSS SECTION - 78TH/ 79TH PLACE NW AND SHELTON GROSS ROAD

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598--TulalipTribes\554-1598-141 Paving Projects CN\99Secs\CADD\DWG\Hermosa Beach\Civil
PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:39:34 PM
LAYOUT: SECTIONS

	REVISIONS	DATE	BY

DESIGNED J. HILLYARD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME CROSS SECTIONS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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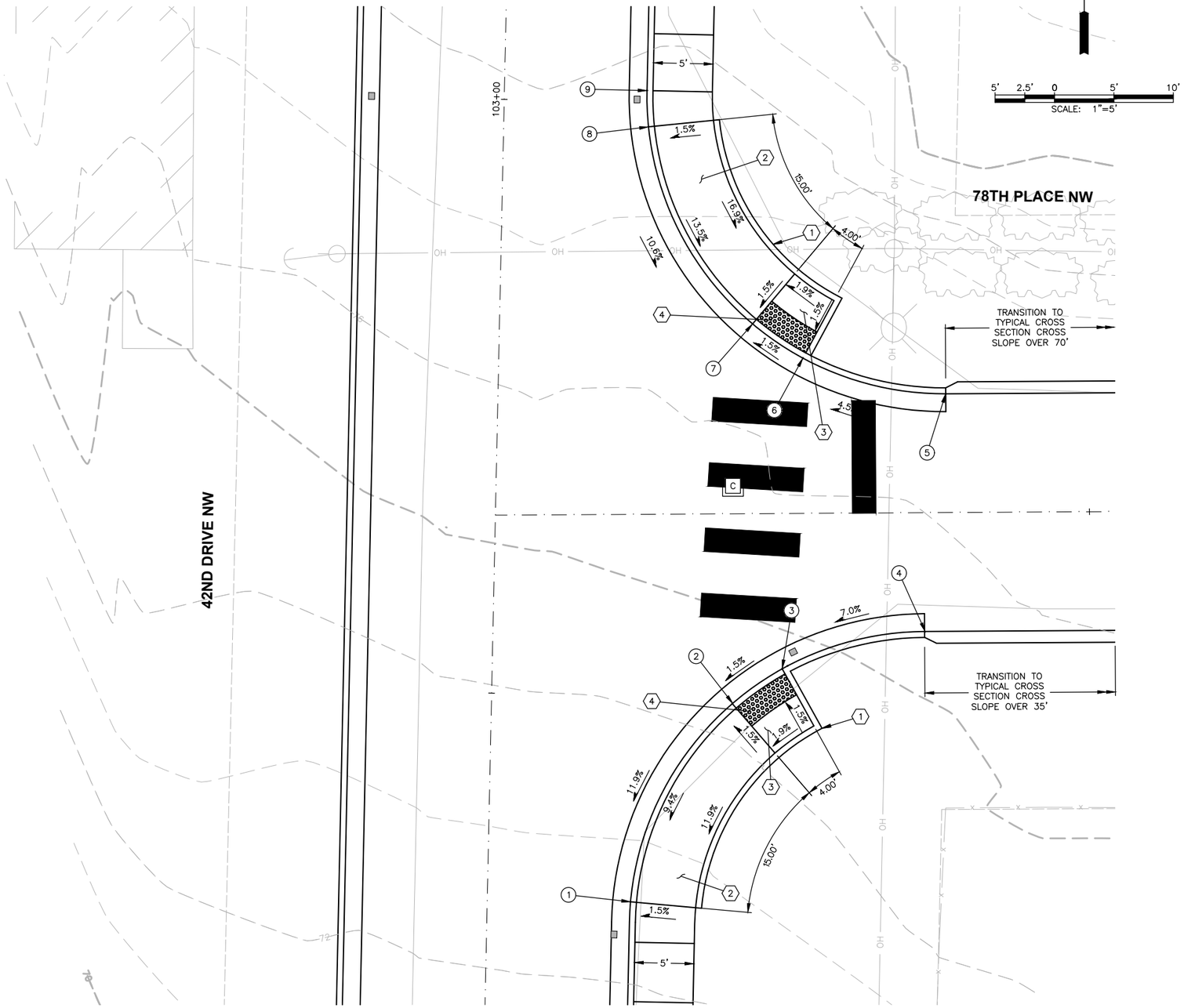
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

ROAD CROSS SECTIONS

DRAWING NO.
19 OF 32

19



42ND DRIVE NW / 78TH PLACE NW CURB RETURN & ADA RAMP TABLE

NUMBER	TYPE	STATION 200+11.18	OFFSET 32.62 RT	FLOWLINE ELEVATION	CURB HEIGHT	DESCRIPTION	CENTER
1	PC	200+13.89	23.45 RT	72.06	6"	L=36.88' R=25.00' Δ=84° 31' 34"	200+36.07 35.00 RT
2	LANDING	200+21.88	14.42 RT	74.34	0"		
3	LANDING	200+24.29	12.95 RT	74.42	0"/6"		
4	PT	200+30.12	10.72 RT	74.45	6"		
5	PC	200+35.96	10.08 LT	75.95	6"	L=39.95' R=25.00' Δ=91° 32' 56"	200+37.96 35.00 LT
6	LANDING	200+23.77	14.41 LT	75.39	6"/0"		
7	LANDING	200+15.79	23.45 LT	75.31	0"		
8	RAMP	200+13.07	32.66 LT	77.35	FIELD CALC		
9	PT	200+12.96	35.29 LT	77.67	6"		

CURB RAMP NOTES:

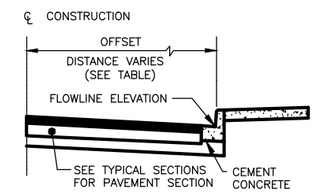
1. PEDESTRIAN CURB, AS REQUIRED, PER WSDOT STD PLAN F-10.12-03, SHEET XX.
2. PARALLEL CURB RAMP PER WSDOT STD PLAN F-40.12-03, SHEET XX. FIELD VERIFY AND ADJUST RAMP LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS. THE CURB RAMP MAXIMUM RUNNING SLOPE AT THE BACK OF THE RAMP SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15-FEET.
3. LANDING. 4' X 4' MINIMUM CROSS SLOPE SHALL NOT EXCEED 1.5% EXCEPT AS NOTED.
4. DETECTABLE WARNING SURFACE PER WSDOT STD PLAN F-45.10-02, SHEET XX.

ADA NON-COMPLIANCE NOTES

ALL RAMPS SHALL BE CONSTRUCTED TO BE COMPLIANT TO THE REQUIREMENTS IN THE U.S. ACCESS BOARD PROWAG, 2005 EDITION TO THE MAXIMUM EXTENT FEASIBLE. THESE SYMBOLS INDICATE A GRADE OR DIMENSION THAT HAS BEEN DOCUMENTED TO BE NON-COMPLIANT.

[C] DENOTES MEF DOCUMENTATION FOR CROSSING

[R] DENOTES MEF DOCUMENTATION FOR RAMP



FLOWLINE ELEVATION AND OFFSET DETAIL

NTS

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME Curb Returns
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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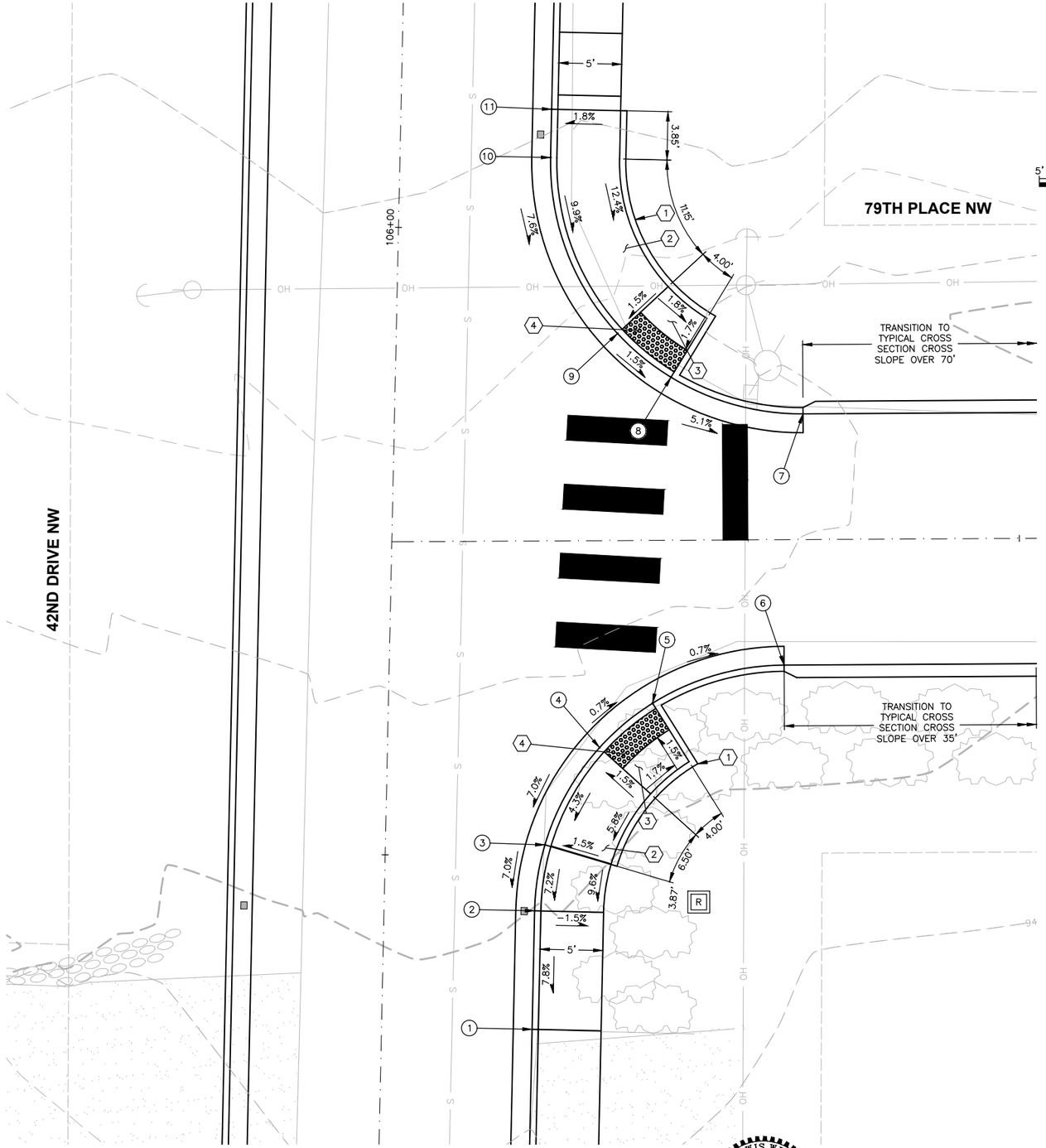
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

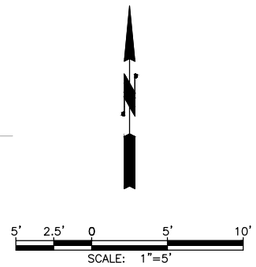
CURB RETURN AND RAMP DETAILS FOR 78TH PLACE NW

DRAWING NO. 20 OF 32

20

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects CN\99Svcs\CADD\DWG\Hermosa Beach
PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:46:25 PM
LAYOUT: Curb 78th





42ND DRIVE NW / 79TH PLACE NW CURB RETURN & ADA RAMP TABLE

NUMBER	TYPE	STATION	OFFSET	FLOWLINE ELEVATION	CURB HEIGHT	DESCRIPTION	CENTER
1	LANDING	300+10.97	38.90 RT	94.36	0.5"		
2	RAMP/PC	300+11.22	29.45 RT	94.84	3"	L=30.88' R=20.00' Δ=88° 27' 03"	300+31.21 29.99 RT
3	RAMP	300+12.07	24.21 RT	95.21	3"		
4	LANDING	300+16.46	16.48 RT	95.84	0"		
5	LANDING	300+20.70	12.97 RT	95.80	0"/6"		
6	PT	300+31.20	9.99 RT	95.73	6"	L=31.96' R=20.00' Δ=91° 32' 57"	300+32.81 30.01 LT
7	PC	300+32.82	10.01 LT	96.09	6"		
8	LANDING	300+22.32	12.99 LT	96.66	0"/6"		
9	LANDING	300+18.07	16.49 LT	96.74	0"		
10	PT	300+12.82	30.55 LT	97.91	FIELD CALC		
11	RAMP	300+12.92	34.40 LT	98.11	6"		

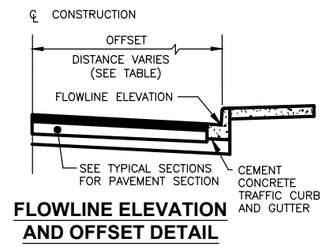
CURB RAMP NOTES:

1. PEDESTRIAN CURB, AS REQUIRED, PER WSDOT STD PLAN F-10.12-03, SHEET XX.
2. PARALLEL CURB RAMP PER WSDOT STD PLAN F-40.12-03, SHEET XX. FIELD VERIFY AND ADJUST RAMP LENGTH TO MEET RAMP SLOPE REQUIREMENTS PER DETAILS. THE CURB RAMP MAXIMUM RUNNING SLOPE AT THE BACK OF THE RAMP SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15-FEET.
3. LANDING. 4' X 4' MINIMUM CROSS SLOPE SHALL NOT EXCEED 1.5% EXCEPT AS NOTED.
4. DETECTABLE WARNING SURFACE PER WSDOT STD PLAN F-45.10-02, SHEET XX.

ADA NON-COMPLIANCE NOTES

ALL RAMPS SHALL BE CONSTRUCTED TO BE COMPLIANT TO THE REQUIREMENTS IN THE U.S. ACCESS BOARD PROWAG, 2005 EDITION TO THE MAXIMUM EXTENT FEASIBLE. THESE SYMBOLS INDICATE A GRADE OR DIMENSION THAT HAS BEEN DOCUMENTED TO BE NON-COMPLIANT.

- [C] DENOTES MEF DOCUMENTATION FOR CROSSING
- [R] DENOTES MEF DOCUMENTATION FOR RAMP



FLOWLINE ELEVATION AND OFFSET DETAIL

NTS

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME Curb Returns
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

Parametrix
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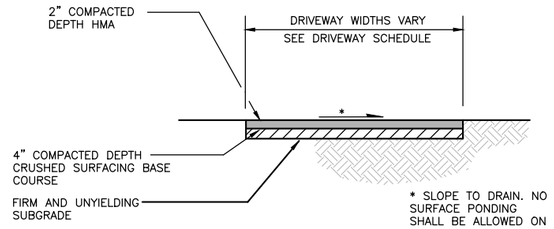
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

CURB RETURN AND RAMP DETAILS FOR 79TH PLACE NW

DRAWING NO.
21 OF 32

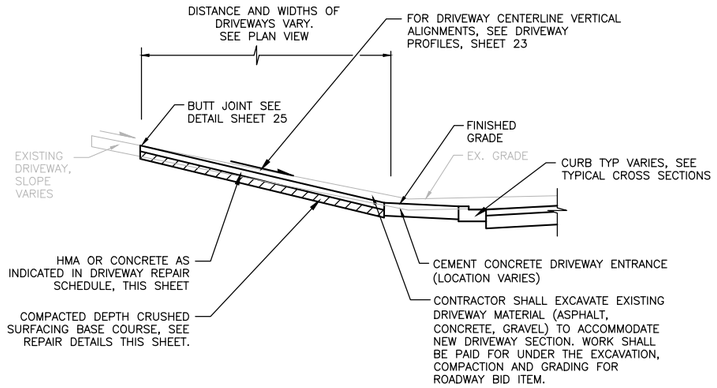
21

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects ON\99Svcs\CADD\DWG\Hermosa Beach PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:46:41 PM
LAYOUT: Curb 79th



HMA DRIVEWAY REPAIR

NTS

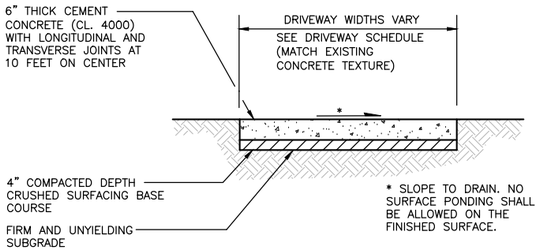


DRIVEWAY REPAIR DETAIL (CUT SECTION)

NTS

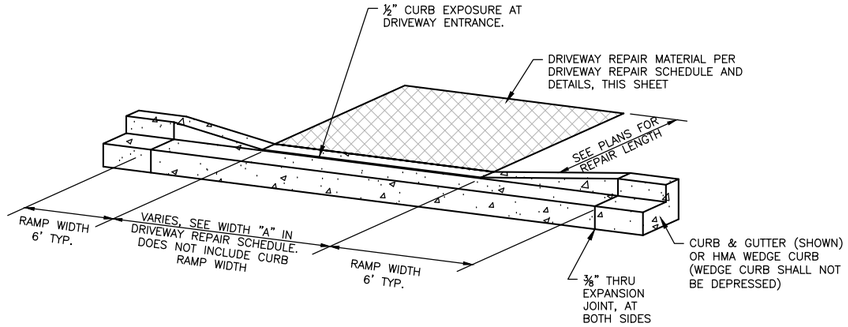
DRIVEWAY APPROACH				DRIVEWAY REPAIR (BEYOND APPROACH) MATERIAL
DRIVEWAY NO.	STA. OF DRIVEWAY C/L	SIDE	WIDTH "A" (FT)	
1	101+59	RT	30	HMA
2	101+62	LT	15	HMA
3	103+35	LT	17	HMA
4	103+71	LT	60	HMA
5	104+07	RT	19	HMA
6	105+27	RT	17	HMA
7	105+33	LT	16	HMA
8	106+90	RT	35	HMA
9	200+84	LT	13	HMA
10	201+05	RT	20	CONCRETE
11	201+55	LT	21	HMA
12	201+80	RT	18	CONCRETE
13	201+92	LT	30	HMA
14	202+50	RT	28	HMA
15	202+83	RT	21	HMA
16	202+87	LT	45	HMA
17	203+82	RT	11	HMA
18	204+17	LT	20	HMA
19	204+33	RT	27	HMA
20	204+58	LT	32	HMA
21	301+16	LT	38	HMA
22	301+54	RT	12	HMA
23	302+00	RT	31	HMA
24	302+04	LT	32	HMA
25	302+54	RT	31	HMA
26	302+58	LT	31	HMA
27	507+07	LT	25	HMA

DRIVEWAY REPAIR SCHEDULE



CEMENT CONCRETE DRIVEWAY REPAIR

NTS

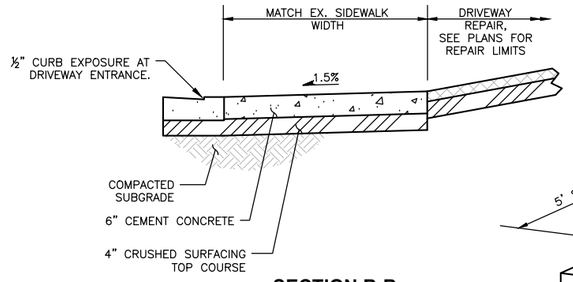


DRIVEWAY APPROACH - NO SIDEWALK

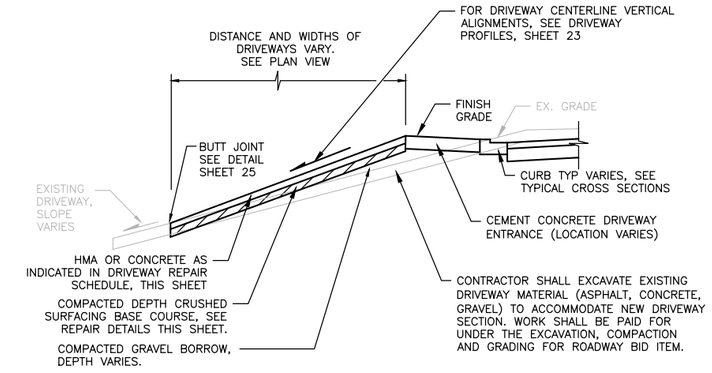
NTS

DRIVEWAY ENTRANCE NOTES

1. ALL JOINTS SHALL BE CLEANED AND EDGED.
2. CEMENT CONCRETE FOR DRIVEWAY ENTRANCES SHALL BE 6" THICK, AIR ENTRAINED, CLASS 4000, 3–DAY MIX.
3. CONCRETE SHALL BE BRUSHED TRANSVERSELY WITH A FIBER OR WIRE BRUSH OF A TYPE APPROVED BY THE CONTRACTING AGENCY.
4. MAXIMUM JOINT SPACING SHALL BE 10' CENTER TO CENTER.

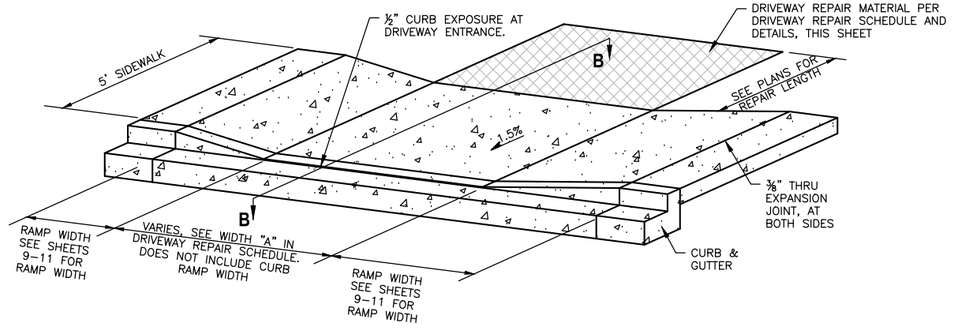


SECTION B-B



DRIVEWAY REPAIR DETAIL (FILL SECTION)

NTS



DRIVEWAY ENTRANCE

NTS

REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME DETAILS
JOB No. 554–1598–141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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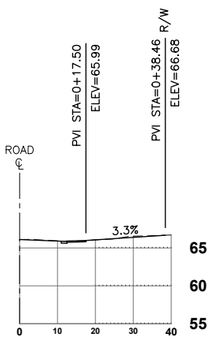
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

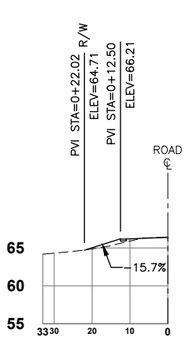
DRIVEWAY REPAIR DETAILS

DRAWING NO. 22 OF 32
22

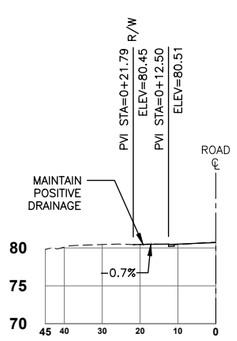
LAYOUT: DRIVEWAY REPAIR PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598–TulalipTribes\554–1598–141 Paving Projects ON\99Svcs\CADD\DWG\Hermosa Beach\Civil PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 10:05:22 PM



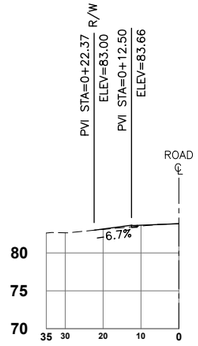
STA 101+59 DRIVEWAY
CENTERLINE PROFILE



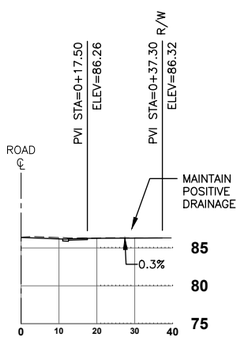
STA 101+62 DRIVEWAY
CENTERLINE PROFILE



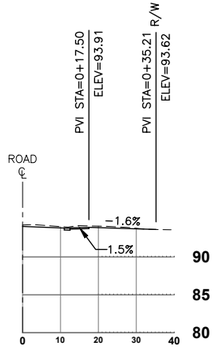
STA 103+35 DRIVEWAY
CENTERLINE PROFILE



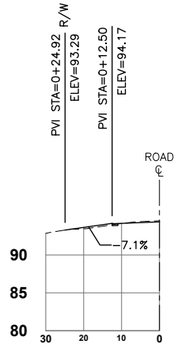
STA 103+71 DRIVEWAY
CENTERLINE PROFILE



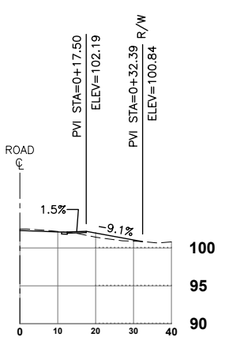
STA 104+07 DRIVEWAY
CENTERLINE PROFILE



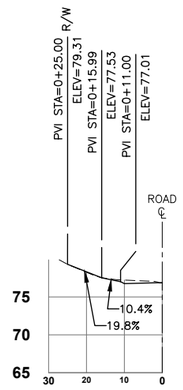
STA 105+27 DRIVEWAY
CENTERLINE PROFILE



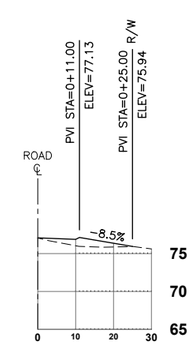
STA 105+33 DRIVEWAY
CENTERLINE PROFILE



STA 106+90 DRIVEWAY
CENTERLINE PROFILE



STA 200+84 DRIVEWAY
CENTERLINE PROFILE



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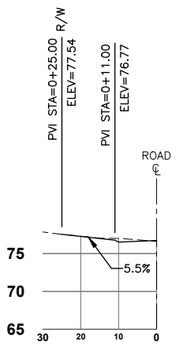
CENTERLINE PROFILE



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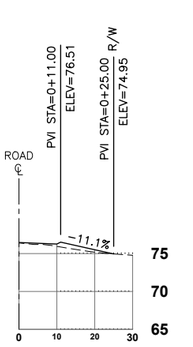
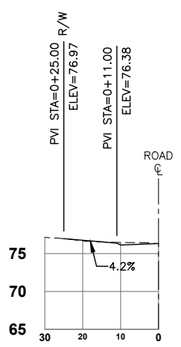
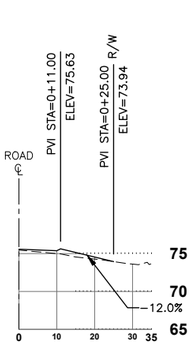
CENTERLINE PROFILE



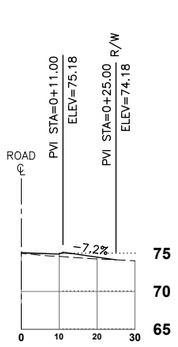
STA 201+80 DRIVEWAY
CENTERLINE PROFILE



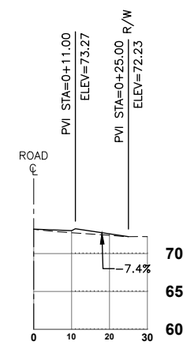
STA 201+92 DRIVEWAY
CENTERLINE PROFILE



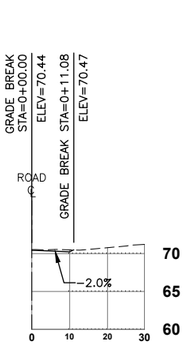
STA 202+50 DRIVEWAY
CENTERLINE PROFILE



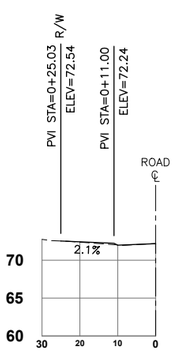
STA 202+83 DRIVEWAY
CENTERLINE PROFILE



STA 203+82 DRIVEWAY
CENTERLINE PROFILE



STA 204+58 DRIVEWAY
CENTERLINE PROFILE



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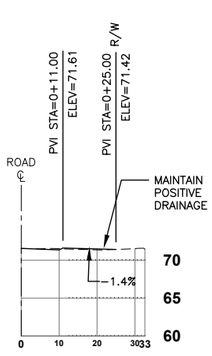

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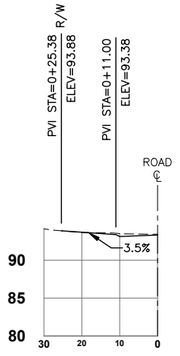

STA 301+16 DRIVEWAY
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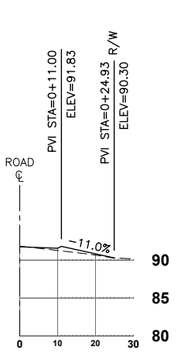

STA 301+54 DRIVEWAY
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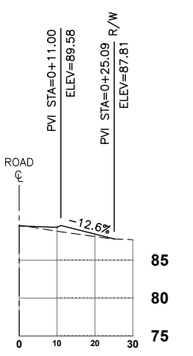
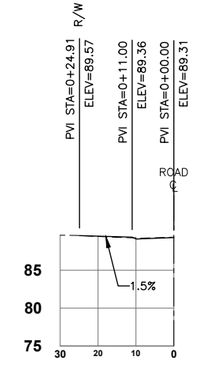


STA 302+00 DRIVEWAY
CENTERLINE PROFILE



STA 302+04 DRIVEWAY
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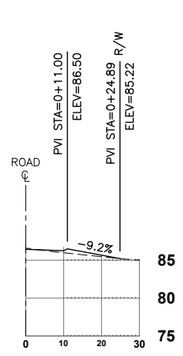
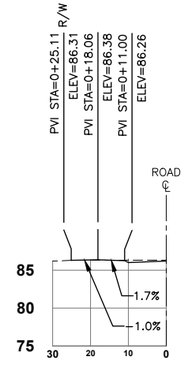


STA 302+54 DRIVEWAY
CENTERLINE PROFILE



STA 302+58 DRIVEWAY
CENTERLINE PROFILE

20' 10' 0 20' 40'
SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=10'

	REVISIONS	DATE	BY

DESIGNED S. OGDEN
DRAWN B. PURGANAN
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

FILE NAME PLANS & PROFILES
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT III
STATE OF WASHINGTON
48258
REGISTERED
PROFESSIONAL ENGINEER
3/24/22

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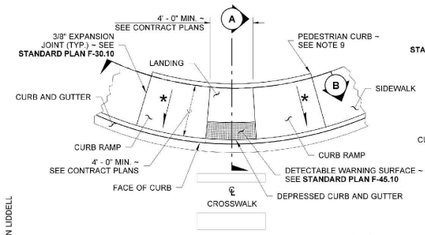
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

DRIVEWAY PROFILES

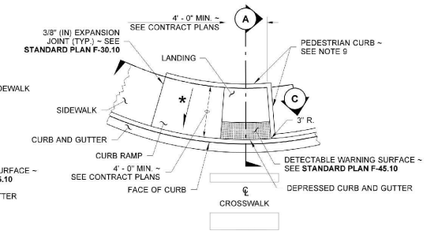
DRAWING NO.
23 OF 32

23

LAYOUT: DRIVEWAY PROF (1) PATH: U:\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects ON 199Svcs\CADD\DWG\Hermosa Beach PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 9:11:44 PM



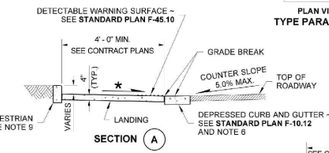
PLAN VIEW
TYPE PARALLEL A



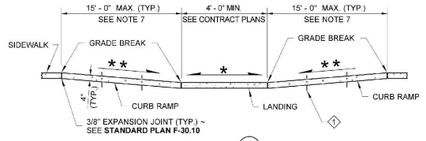
PLAN VIEW
TYPE PARALLEL B

DRAWN BY: FERN LUDDELL

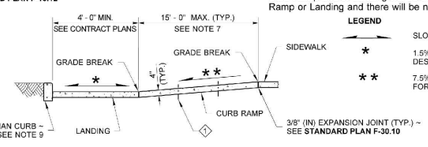
1 CONTRACTION JOINT (TYP.) ~ SEE **STANDARD PLAN F-30.1** FOR CURB RAMP LENGTHS GREATER THAN 8' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC.



SECTION (A)



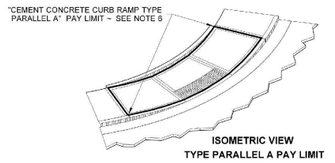
SECTION (B)
(ALONG INSIDE RADIUS AT BACK OF WALKWAY)



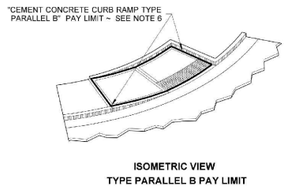
SECTION (C)
(ALONG INSIDE RADIUS AT BACK OF WALKWAY)

LEGEND

*	SLOPE IN EITHER DIRECTION
**	1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
	7.5% OR FLATTER RECOMMENDED FOR DESIGN/ FORMWORK (8.3% MAX.) ~ SEE NOTE 7



ISOMETRIC VIEW
TYPE PARALLEL A PAY LIMIT



ISOMETRIC VIEW
TYPE PARALLEL B PAY LIMIT

NOTES

1. At marked crosswalks, the connection between the landing and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the Landing connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type __" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not include abutting landing(s) in the15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14.**
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will be no material to retain.

R. SCOTT ZELLER — STATE OF WASHINGTON — 28680 — REGISTERED PROFESSIONAL ENGINEER

Zeller, Scott
Jun 24 2016 7:19 AM

PARALLEL CURB RAMP

STANDARD PLAN F-40.12-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jun 29 2016 2:27 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

SEE STANDARD SPECIFICATIONS FOR COLOR OF SURFACE

	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	—
C	0.45"	0.90"
D	0.9"	1.40"
E	0.2"	0.2"

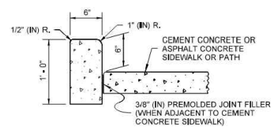
TRUNCATED DOME DETAILS

DETECTABLE WARNING SURFACE

STANDARD PLAN F-45.10-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jul 15 2016 2:26 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation



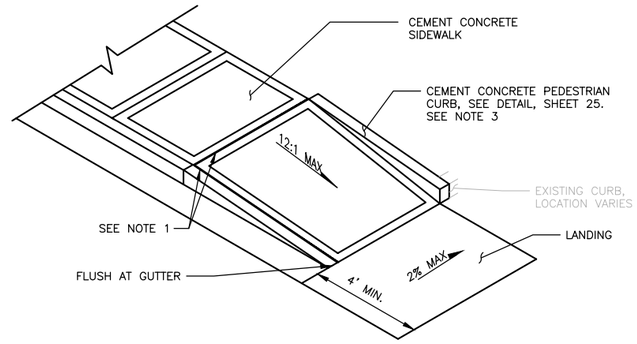
CEMENT CONCRETE PEDESTRIAN CURB

CEMENT CONCRETE CURBS

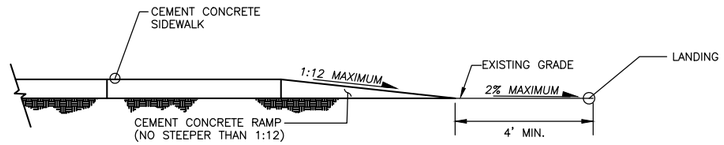
STANDARD PLAN F-10.12-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.24 07:57:43 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation



ISOMETRIC VIEW



ELEVATION VIEW

NOTES:

1. 3/8"x 4" EXPANSION JOINT.
2. SIDEWALK RAMPS SHALL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, EXCEPT AT END OF RAMP ADJACENT TO ROADWAY.

   PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE RAMP AND OR LANDING WILL BE AT THE SAME ELEVATION AS THE RAMP OR LANDING AND THERE IS NO MATERIAL TO RETAIN

SIDEWALK END RAMP

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME DETAILS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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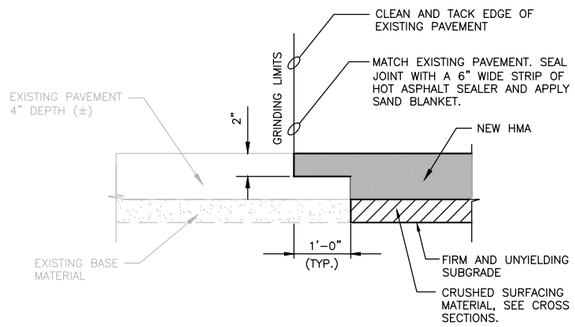
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

CURB RAMP DETAILS

DRAWING NO.
24 OF 32

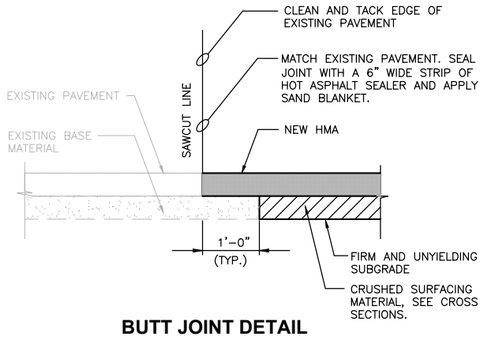
24

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598--TulalipTribes\554-1598-141 Paving Projects CN\99Secs\CADD\DWG\Hermosa Beach\Civil
PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 10:05:32 PM
LAYOUT: CURB RAMP



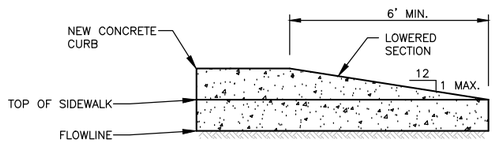
BUTT JOINT DETAIL (AT GRINDING LIMITS)

NTS



BUTT JOINT DETAIL (LOCATION VARIES)

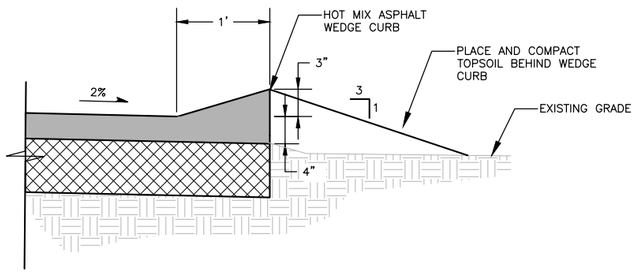
NTS



NOTE:
CONCRETE CURB END SECTION SHALL BE USED AT ALL LOCATIONS WHERE NEW CURB DOES NOT MEET EXISTING CURB, AT SIDEWALK TRANSITION SECTIONS AND/OR AS DIRECTED IN THE FIELD.

SIDEWALK RAISED EDGE END SECTION

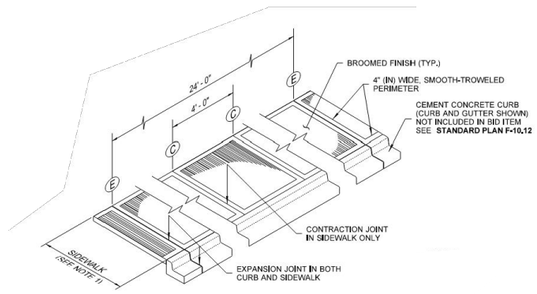
NTS



NOTE: CONTRACTOR SHALL INSTALL WEDGE CURB TO MAINTAIN POSITIVE FLOWLINE SLOPE TO CATCH BASINS TO PREVENT PONDING.

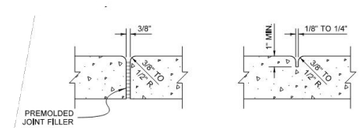
ASPHALT WEDGE CURB DETAIL

NOT TO SCALE



ISOMETRIC VIEW

JOINT AND FINISH DETAIL



(E) EXPANSION JOINT

(C) CONTRACTION JOINT

MODIFIED

CEMENT CONCRETE SIDEWALK

STANDARD PLAN F-30.10-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
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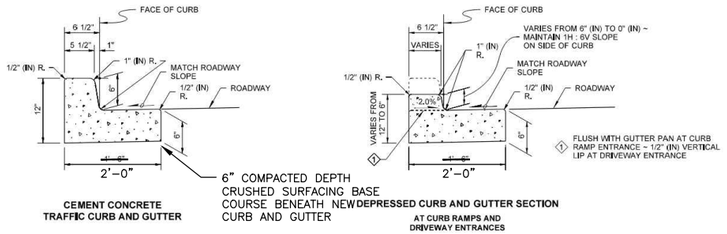


CEMENT CONCRETE TRAFFIC CURB AND GUTTER

DEPRESSED CURB AND GUTTER SECTION AT CURB RAMPS AND DRIVEWAY ENTRANCES

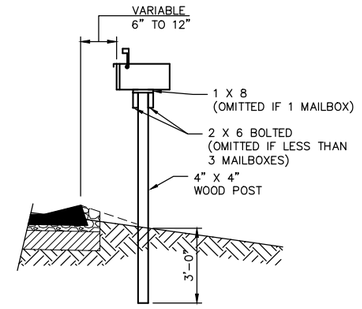
MODIFIED

CEMENT CONCRETE CURBS

STANDARD PLAN F-10.12-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.24 07:57:43 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

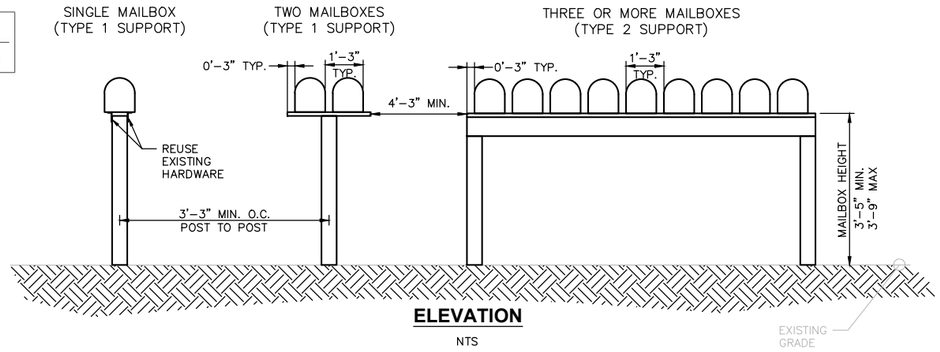


SECTION

NTS

NOTES:

1. WOOD POSTS SHALL BE PRESSURE TREATED FIR OR HEMLOCK.
2. CONTRACTOR SHALL RELOCATE ANY EXISTING NEWSPAPER BOXES AND ATTACH THEM TO THE NEW MAILBOX SUPPORT WITH EXISTING HARDWARE.



ELEVATION

NTS

MAILBOX INSTALLATION DETAILS

NTS

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME DETAILS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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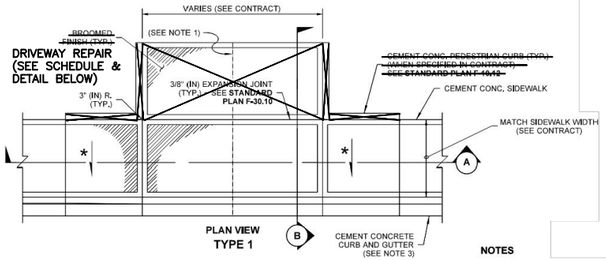
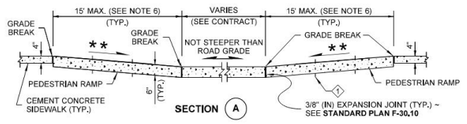
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

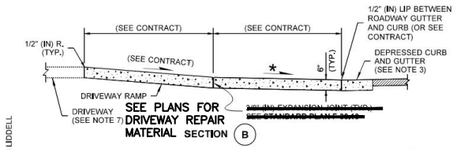
ROAD DETAILS

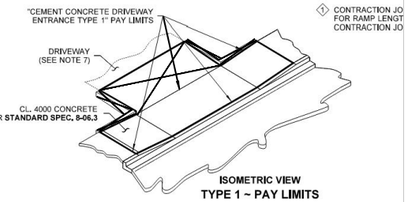
DRAWING NO.
25 OF 32

25









NOTES

1. When the driveway width exceeds 15' (ft), construct a full depth expansion joint with 3/8" (in) joint filler along the driveway centerline. See **Standard Plan F-30.10.** Construct expansion joints parallel with the centerline as required at 15' (ft) maximum spacing when driveway widths exceed 30' (ft).
2. See **Standard Plan F-30.10** for sidewalk details.
3. Curb and Gutter shown; see the Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb Details.
4. Avoid placing drainage structures, junction boxes or other obstructions in front of driveway entrances.
5. Where "GRADE BREAK" is called out, the entire length o line between the two adjacent surface planes shall be flush.
6. The Pedestrian Ramp length is not required to exceed15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length (measured from back of sidewalk) the running slope of the pedestrian ramp is allowed to exceed 8.3% Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet.
7. Beyond limits shown. Pay item does not include driveway. See Contract Plans.

MODIFIED

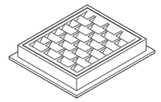
CEMENT CONCRETE DRIVEWAY ENTRANCE TYPES 1, 2, 3, & 4

STANDARD PLAN F-80.10-04

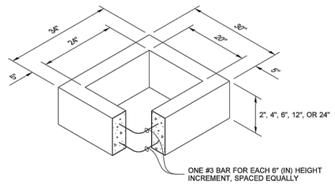
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jul 13 2016 2:27 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN UDDELL



FRAME AND VANED GRATE



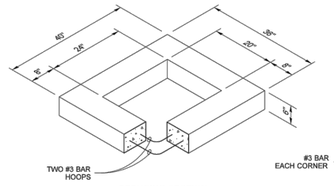
RECTANGULAR ADJUSTMENT SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	**MAXIMUM INSIDE DIAMETER (INCHES)**
REINFORCED OR PLAIN CONCRETE	18"
ALL METAL PIPE	21"
CPSSP ★ **(STD. SPEC. SECT. 9-05.20)**	18"
SOLID WALL PVC **(STD. SPEC. SECT. 9-05.12(1))**	21"
PROFILE WALL PVC **(STD. SPEC. SECT. 9-05.12(2))**	21"

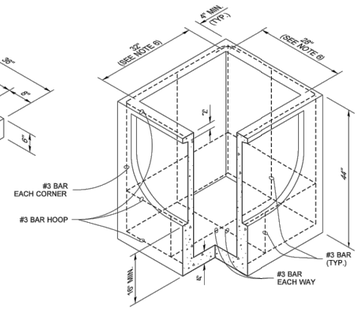
★ CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

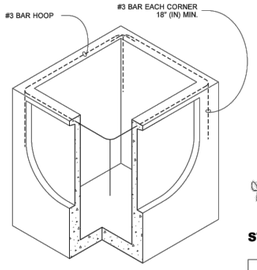
1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot, shall be used with the minimum required rebar shown in the ALTERNATIVE **PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout shall not be greater than 26" (in), in any direction. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the Precast Base Section.
7. All pickup holes shall be grouted full after the basin has been placed.



REDUCING SECTION



PRECAST BASE SECTION



(SEE NOTE 1)

ALTERNATIVE PRECAST BASE SECTION

Heilman, Julie
Jan 25 2017 2:56 PM

CATCH BASIN TYPE 1L

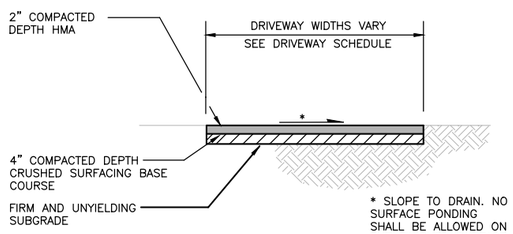
STANDARD PLAN B-5.40-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jan 26 2017 6:49 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation

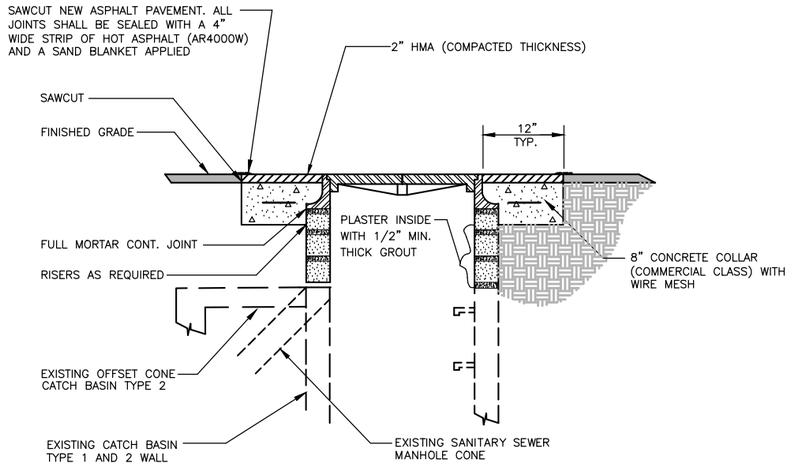
DRIVEWAY APPROACH				RAMPS		DRIVEWAY REPAIR (BEYOND APPROACH) MATERIAL
DRIVEWAY NO.	CL STA.	SIDE	WIDTH	LEFT	RIGHT	
1	15+25	RT	35'	8'	6'	HMA
2	19+14	RT	45'	10'	6'	HMA

DRIVEWAY REPAIR SCHEDULE

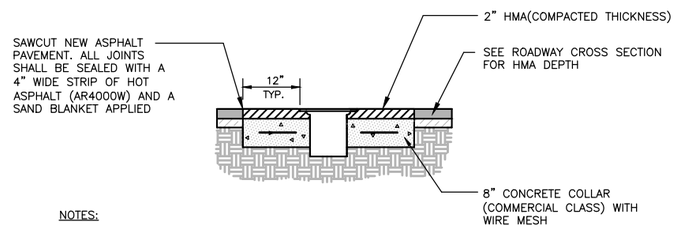


HMA DRIVEWAY REPAIR

NTS



MANHOLE & CATCH BASIN ADJUSTMENT DETAIL



NOTES:

1. REMOVE AND WASTEHAUL EXISTING CONCRETE COLLAR, IF REQUIRED

MONUMENT CASE ADJUSTMENT DETAIL

NTS

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME DETAILS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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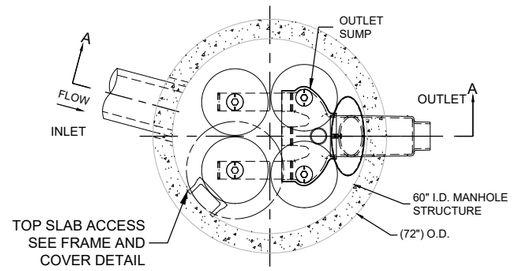
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

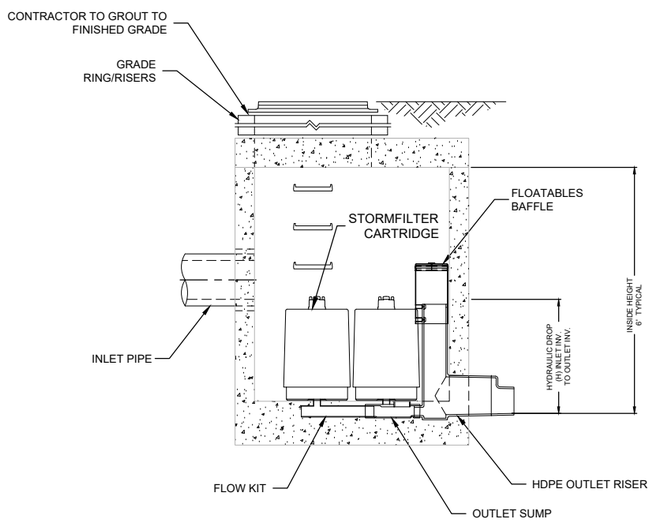
ROAD DETAILS

DRAWING NO.
26 OF 32

26



PLAN VIEW
STANDARD OUTLET RISER
FLOWKIT: 41A



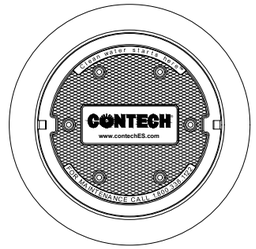
SECTION A-A

STORMFILTER DESIGN NOTES

STORMFILTER TREATMENTCAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (4). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 4 CARTRIDGES. Ø60" MANHOLE STORMFILTER PEAK HYDRAULIC CAPACITY IS 1.0 CFS. IF THE SITE CONDITIONS EXCEED 1.0 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
RECOMMENDED HYDRAULIC DROP (H)	3.05'		2.3'		1.8'	
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	0.07
PEAK FLOW RATE (cfs)	0.55
RETURN PERIOD OF PEAK FLOW (yrs)	100
# OF CARTRIDGES REQUIRED	3
CARTRIDGE FLOW RATE	11.25
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)	ZPG

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	58.67	CPEP	12"
INLET PIPE #2	N/A	N/A	N/A
OUTLET PIPE	55.62	CPEP	12"

RIM ELEVATION	61.77

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 39 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
5. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET STUB AT MOLDED IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
6. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

CONTECH ENGINEERED SOLUTIONS LLC
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800-338-1122 513-645-7000 513-645-7993 FAX

SFMH60
STORMFILTER
STANDARD DETAIL

STORMWATER TREATMENT MANHOLE #1
NTS

	REVISIONS	DATE	BY

DESIGNED J. HILLYARD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME DETAILS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT III — STATE OF WASHINGTON — 48258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
719 2ND AVENUE, SUITE 200 | SEATTLE, WA 98104
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PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

STORM DETAILS

DRAWING NO.
27 OF 32
27

LAYOUT: STORM 1 PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598--Tulalip Tribes\554-1598-141 Paving Projects CN\99Scs\CADD\DWG\Hermosa Beach\Civil PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 10:05:52 PM

LAYOUT: STORM 2   PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598-TulalipTribes\554-1598-141 Paving Projects CN\99Svcs\CADD\DWG\Hermosa Beach\Civil   PLOTTED BY: mahmoyou   DATE: Thursday, March 24, 2022 10:05:54 PM

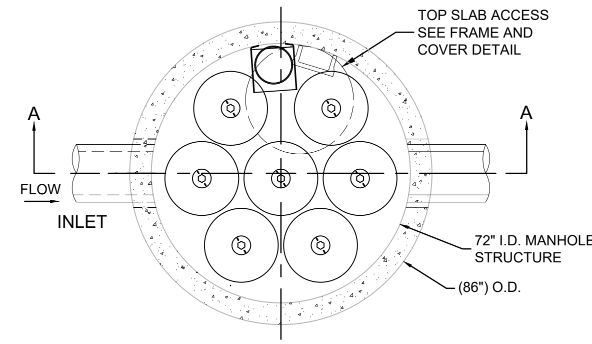
INFILTRATOR STORMFILTER DESIGN NOTES

INFILTRATOR STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (7).

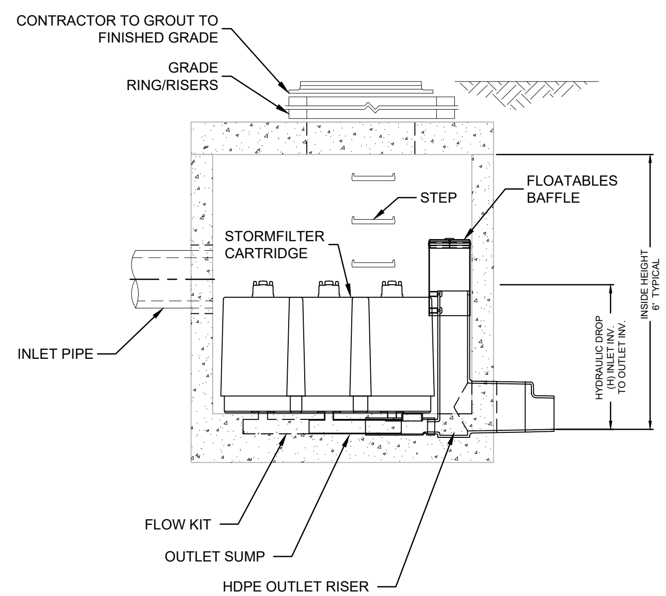
Ø72" MANHOLE STORMFILTER PEAK HYDRAULIC CAPACITY IS 1.5 CFS. IF THE SITE CONDITIONS EXCEED 1.5 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

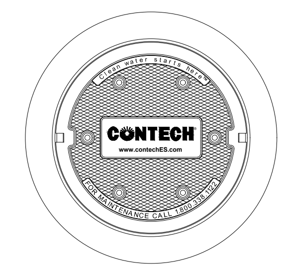
CARTRIDGE HEIGHT	27"		18"		LOW DROP	
RECOMMENDED HYDRAULIC DROP (H)	3.05'		2.3'		1.8'	
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



PLAN VIEW
TOP SLAB NOT SHOWN



SECTION A-A



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			*
WATER QUALITY FLOW RATE (cfs)			0.13
PEAK FLOW RATE (cfs)			1.00
RETURN PERIOD OF PEAK FLOW (yrs)			100
# OF CARTRIDGES REQUIRED			6
CARTRIDGE FLOW RATE			11.25
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)			ZPG
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	46.86	CPEP	12"
INLET PIPE #2	N/A	N/A	N/A
OUTLET PIPE	43.81	CPEP	12"
RIM ELEVATION			49.60
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
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SFMH72
STORMFILTER
STANDARD DETAIL

STORMWATER TREATMENT MANHOLE #2

NTS

REVISIONS	DATE	BY	
			DESIGNED J. HILLYARD
			DRAWN K. CRAWFORD
			CHECKED J. WRIGHT
			APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
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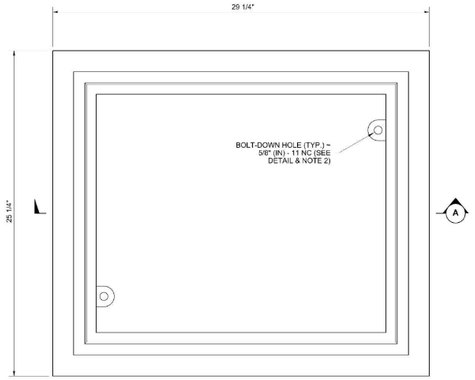
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

STORM DETAILS

DRAWING NO.
28 OF 32

28

DRAWN BY: FERN LIDDELL



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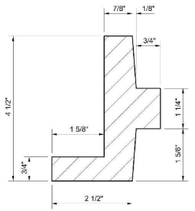
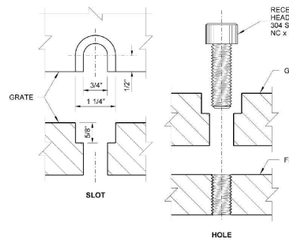


DETAIL (B)

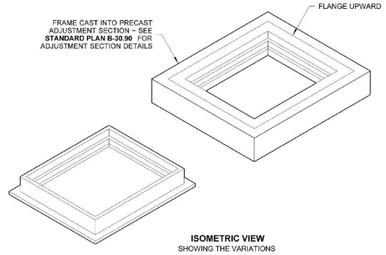


BOLT-DOWN DETAILS
SEE NOTE 2

NOTES

1. This frame is designed to accommodate 20" (in) × 24" (in) grates or covers as shown on **Standard Plans B-30.20, B-30.30, B-30.40,** and **B-30.50.**
2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
3. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.

SECTION (A)



ISOMETRIC VIEW
SHOWING THE VARIATIONS

Heitman, Julie
Feb 20 2018 12:52 PM

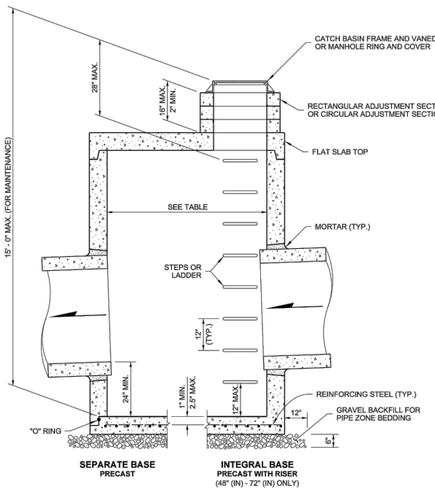
RECTANGULAR FRAME (REVERSIBLE)

STANDARD PLAN B-30.10-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Cayenne, Jeff
Feb 27 2018 7:18 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



SEPARATE BASE
PRECAST

INTEGRAL BASE
PRECAST WITH RISER
(48" (IN) - 72" (IN) ONLY)

NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3.**

CATCH BASIN DIMENSIONS

CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES

CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ① PP ④	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

① Corrugated Polyethylene Storm Sewer Pipe (See **Standard Specification Section 9-05.20**)
② (See **Standard Specification Section 9-05.12(1)**)
③ (See **Standard Specification Section 9-05.12(2)**)
④ Polypropylene Pipe (See **Standard Specification Section 9-05.24**)

Heitman, Julie
Feb 20 2018 12:49 PM

CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Cayenne, Jeff
Feb 27 2018 10:02 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation

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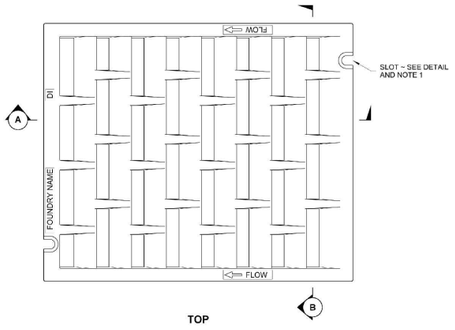

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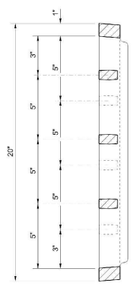
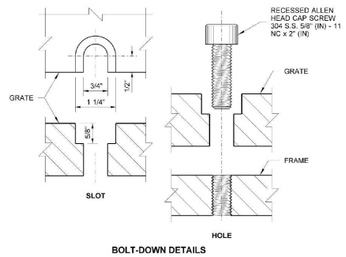


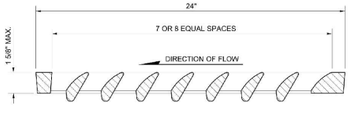
SECTION (B)



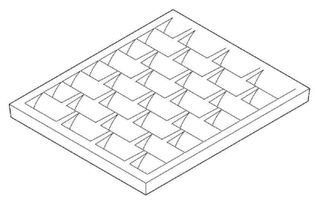
BOLT-DOWN DETAILS
SEE NOTE 1

NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.
3. For frame details, see **Standard Plan B-30.10**.



SECTION (A)



ISOMETRIC

Heitman, Julie
Feb 20 2018 12:54 PM

RECTANGULAR VANED GRATE

STANDARD PLAN B-30.30-03

SHEET 1 OF 1 SHEET

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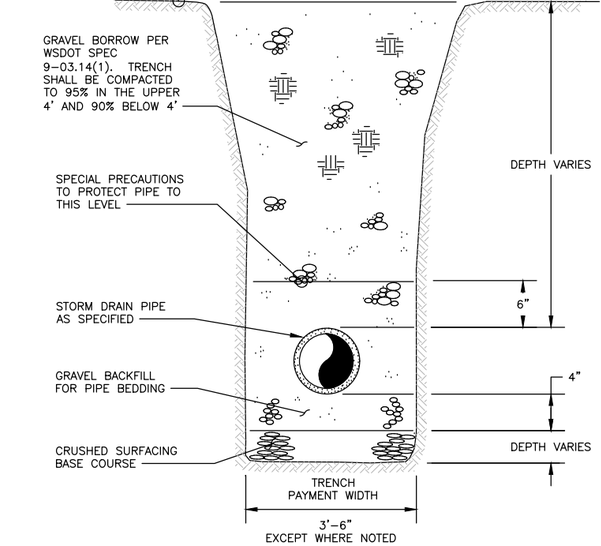
Cayenne, Jeff
Feb 27 2018 7:18 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation



STORM DRAIN PIPE TYPICAL TRENCH SECTION

NTS

	REVISIONS	DATE	BY

DESIGNED J. HILLYARD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY

FILE NAME DETAILS
JOB No. 554-1598-141
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JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 46258 — REGISTERED PROFESSIONAL ENGINEER
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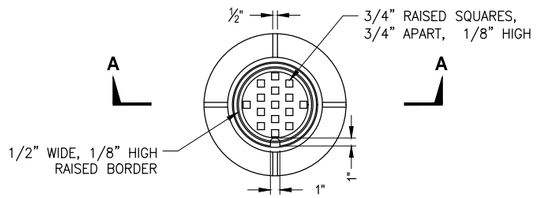
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

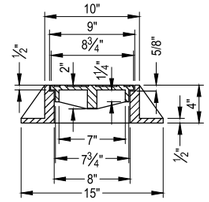
STORM DETAILS

DRAWING NO. 29 OF 32

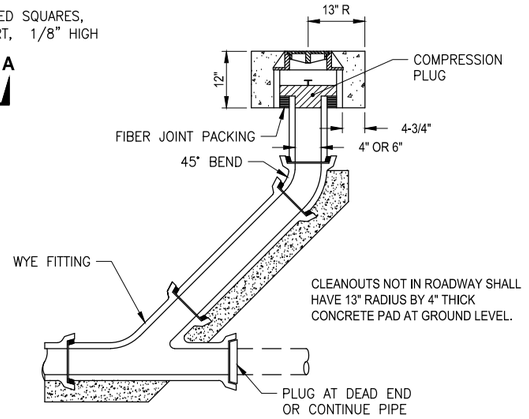
29



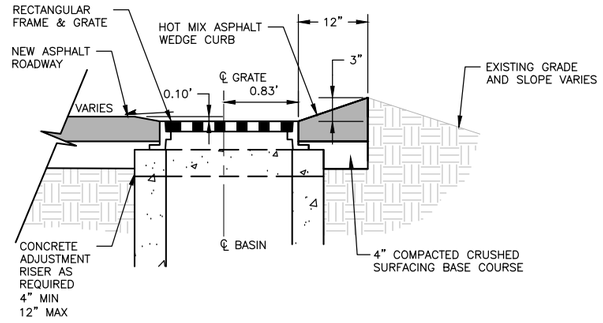
CAST IRON RING AND COVER PLAN



CAST IRON RING AND COVER SECTION A

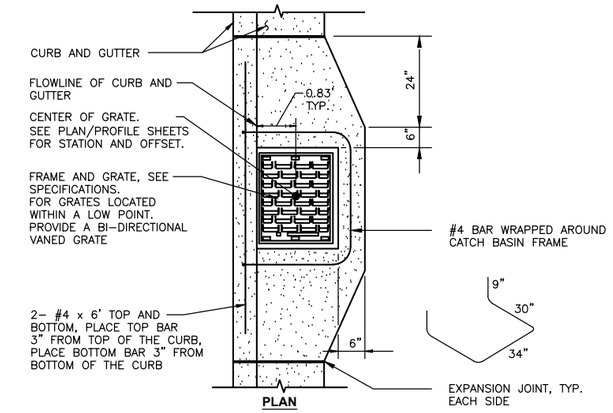


SEWER CLEAN-OUT
DETAIL 1
NO SCALE

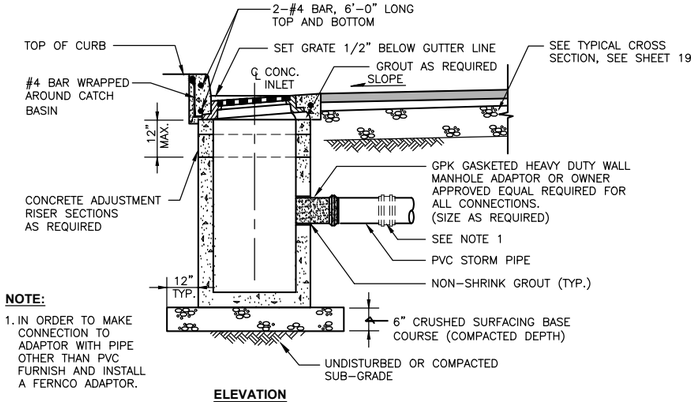


TYPICAL TYPE 1 CATCH BASIN INSTALLATION DETAIL W/ ASPHALT WEDGE CURB

NTS



PLAN



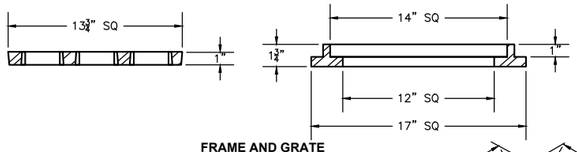
NOTE:

1. IN ORDER TO MAKE CONNECTION TO ADAPTOR WITH PIPE OTHER THAN PVC FURNISH AND INSTALL A FERNCO ADAPTOR.

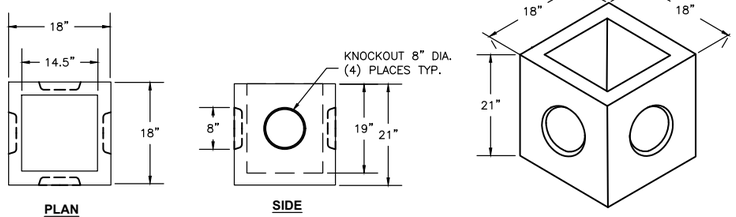
ELEVATION

TYPICAL TYPE 1 CATCH BASIN INSTALLATION DETAIL W/ CURB AND GUTTER

NTS



FRAME AND GRATE



PLAN **SIDE** **ISO VIEW**

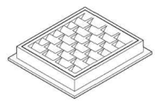
NOTES:

1. AREA DRAIN SHALL BE PLACED ON 6" (COMPACTED DEPTH) LAYER OF CRUSHED SURFACING TOP COURSE.
2. 6" PVC DRAIN PIPE SHALL BE INSTALLED AS SHOWN ON THE PLANS. DRAIN PIPE SHALL BE CONNECTED TO A STRUCTURE, AS SHOWN ON PLANS. CONTRACTOR SHALL MAINTAIN MINIMUM SLOPE OF 0.50%.

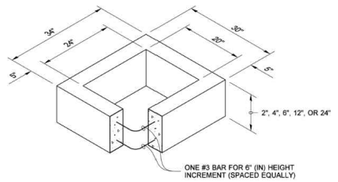
AREA DRAIN

NTS

DRAWN BY: FERN LOCKELL



FRAME AND VANED GRATE



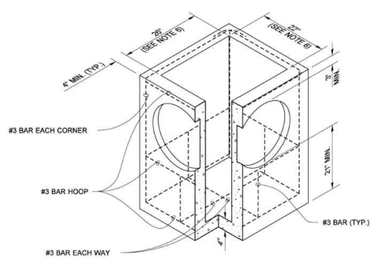
RECTANGULAR ADJUSTMENT SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	**MAXIMUM INSIDE DIAMETER (INCHES)**
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP ★ **(STD. SPEC. SECT. 9-05.20)**	12"
SOLID WALL PVC **(STD. SPEC. SECT. 9-05.12(1))**	15"
PROFILE WALL PVC **(STD. SPEC. SECT. 9-05.12(2))**	15"

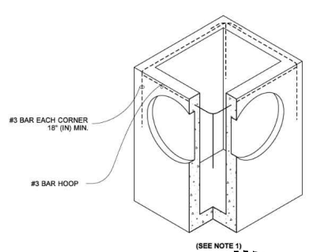
★ CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the **Precast Base Section**.
7. All pickup holes shall be grouted full after the basin has been placed.



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

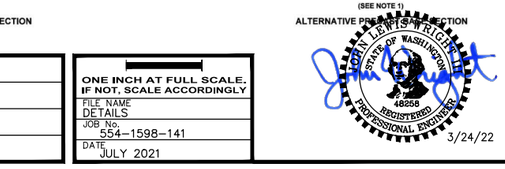
Julie Heilman
2020.09.01 07:52:50 -07'00'

CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Roark, Steve
Digitally signed by Roark, Steve
Date: 2020.09.09 09:45:23 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation



3/24/22

REVISIONS	DATE	BY

DESIGNED J. HILLYARD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME DETAILS
JOB No. 554-1598-141
DATE JULY 2021

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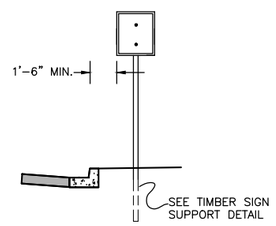
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

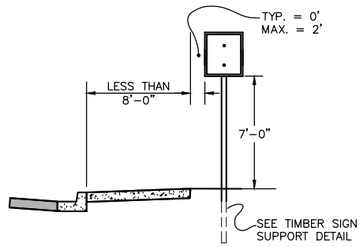
STORM DETAILS

DRAWING NO.
30 OF 32

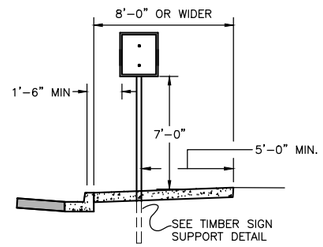
30



CASE 1
NO SIDEWALK



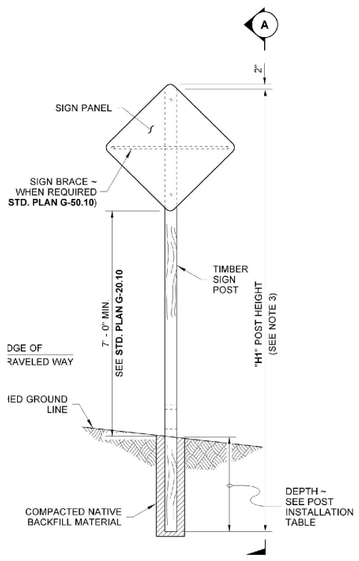
CASE 2
BEHIND CEMENT CONCRETE SIDEWALK LESS THAN 8'–0" WIDE



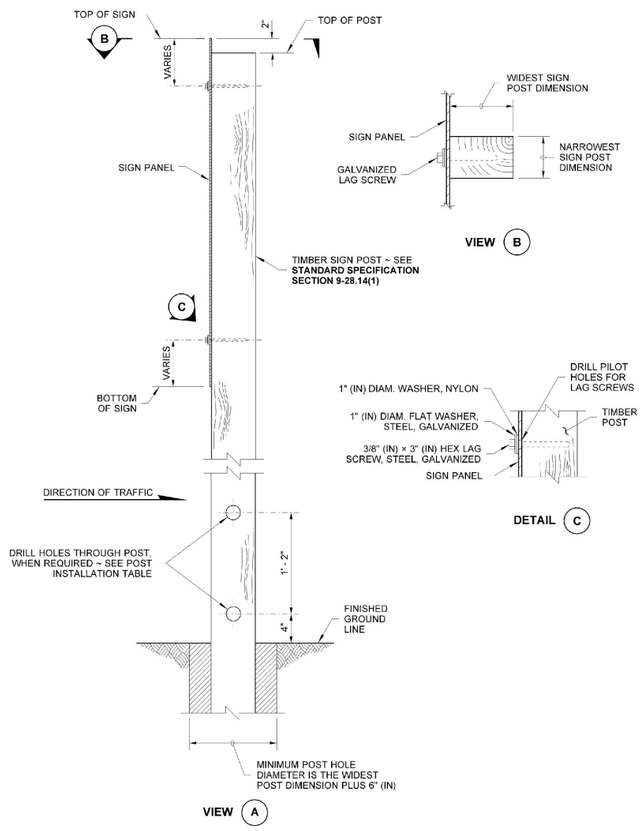
CASE 3
WITHIN 8'–0" OR WIDER CEMENT CONCRETE SIDEWALK

STREET SIGN LOCATION DETAIL

NTS



ELEVATION VIEW
SINGLE-POST INSTALLATION



NOTES

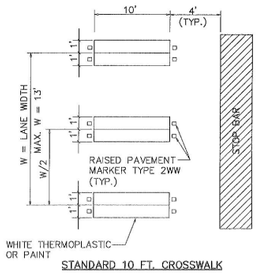
1. Notch is only required with multiple post installations.
2. 6×10, 8×10, and 6×12 Timber Sign Posts cannot be made breakaway and do not have holes or notches. These posts shall not be installed within the Design Clear Zone. They may be installed behind traffic barrier.
3. For "**X**", "**Y**", "**H1**", "**H2**", "**H3**", and "**H4**", refer to the Sign Specification Sheet in the Contract.
4. For 6×6 posts and larger, 7' (ft) minimum spacing is required between posts.
5. All materials shall meet the requirements of **Standard Specification Section 9-28**.

POST INSTALLATION TABLE

POST SIZE (NOM.)	DEPTH	HOLE DIAMETER	NOTCH DEPTH (SEE NOTE 1)
4×4	3' - 0"	NOT REQ'D	NOT REQ'D
4×6	4' - 0"	1 1/2"	1 1/2"
6×6	4' - 0"	2" SEE NOTES 3 & 4	2" SEE NOTES 3 & 4
6×8	5' - 0"	3" SEE NOTES 3 & 4	3" SEE NOTES 3 & 4
6×10	6' - 0"	SEE NOTE 2	SEE NOTE 2
8×10	6' - 0"	SEE NOTE 2	SEE NOTE 2
6×12	7' - 0"	SEE NOTE 2	SEE NOTE 2

MODIFIED
TIMBER SIGN SUPPORT
STANDARD PLAN G-22.10-04
SHEET 1 OF 3 SHEETS

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jun 28 2018 10:42 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation

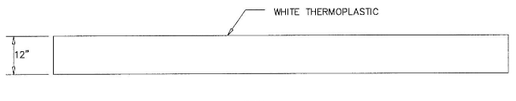


STANDARD 10 FT. CROSSWALK

MODIFIED

AAA	SNOHOMISH COUNTY PUBLIC WORKS	APPROVED BY: Steven E. Thomsen 2-10-03
	7–110 CROSSWALK DETAIL	COUNTY ROAD ENGINEER DATE

03/20/01
S:\TES\COMMON\EDDS\EDDS DRAWINGS\Ch7\NEWCHANEDDS.dwg



NON–ARTERIAL

MODIFIED

AAA	SNOHOMISH COUNTY PUBLIC WORKS	APPROVED BY: Steven E. Thomsen 2-10-03
	7–100 STOP BARS	COUNTY ROAD ENGINEER DATE

03/20/01
S:\TES\COMMON\EDDS\EDDS DRAWINGS\Ch7\NEWCHANEDDS.dwg

PATH: \\parametrix.com\pmx\PSO\Projects\Clients\1598–Tulalip Tribes\554–1598–141 Paving Projects CN\99Svcs\CADD\DWG\Hermosa Beach\Civil
PLOTTED BY: mahmoyou DATE: Thursday, March 24, 2022 10:06:32 PM
LAYOUT: CHANNEL

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME DETAILS
JOB No. 554–1598–141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 48255 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

CHANNELIZATION DETAILS

DRAWING NO.
31 OF 32

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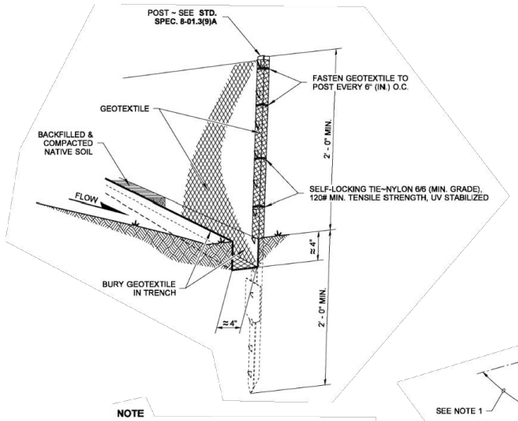
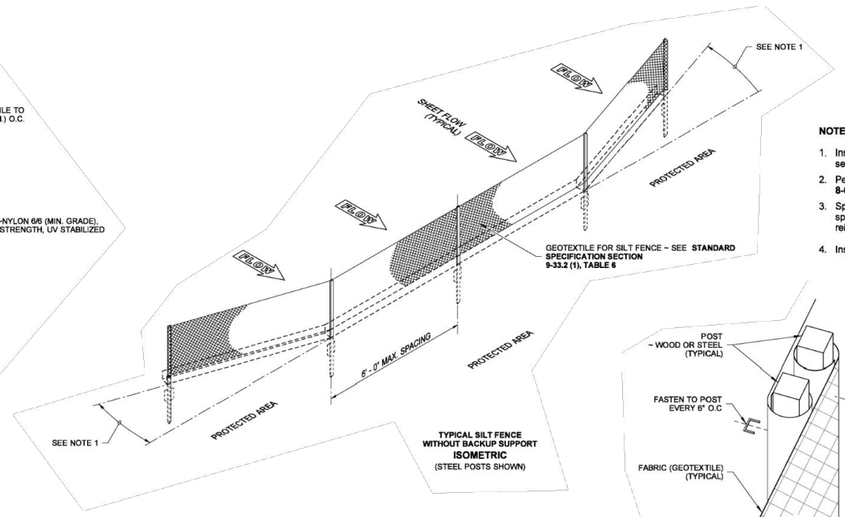


NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

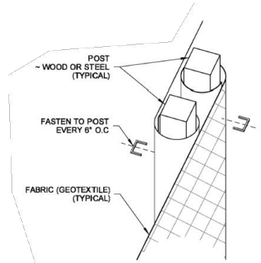
TYPICAL INSTALLATION DETAIL
(STEEL POSTS SHOWN)



TYPICAL SILT FENCE WITHOUT BACKUP SUPPORT
ISOMETRIC
(STEEL POSTS SHOWN)

NOTES

1. Install the ends of the silt fence to point slightly upslope to prevent sediment from flowing around the ends of the fence.
2. Perform maintenance in accordance with **Standard Specifications 8-01.3(9)A and 8-01.3(15).**
3. Splices shall never be placed in low spots or sump locations. If splices are located in low or sump areas, the fence may need to be reinstalled unless the Project Engineer approves the installation.
4. Install silt fencing parallel to mapped contour lines.



SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPLICE DETAIL
(WOOD POSTS SHOWN)

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
SANDRA L. SALISBURY
CERTIFICATE NO. 000860
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST

SILT FENCE

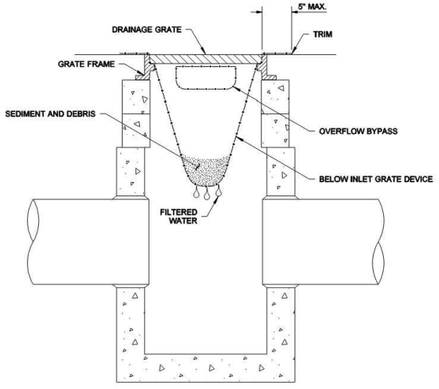
STANDARD PLAN I-30.15-02

SHEET 1 OF 1 SHEET

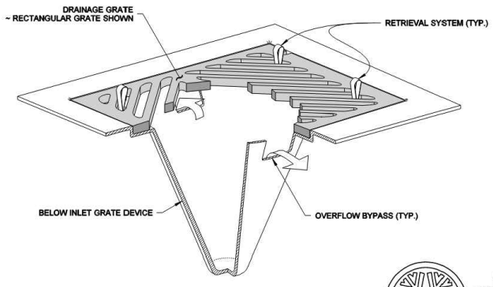
APPROVED FOR PUBLICATION
Pasco Bakotich III 3/22/13
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

EROSION/SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL SUBMIT A TEMPORARY WATER POLLUTION/EROSION CONTROL PLAN PER THE CONTRACT PROVISIONS.
2. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION SHALL BE OBSERVED DURING CONSTRUCTION.
3. ALL REQUIRED SEDIMENTATION/EROSION CONTROL FACILITIES SHALL BE IN OPERATION PRIOR TO LAND CLEARING AND/OR OTHER CONSTRUCTION ACTIVITIES TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE EXISTING DRAINAGE SYSTEM. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO EROSION/SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE EROSION AND SEDIMENTATION CONTROL SYSTEMS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND AS UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE CONTRACTOR SHOULD ANTICIPATE THAT MORE EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES AND THE WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.
5. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF THE SEDIMENT. ALL STORM DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE CLEANED AFTER COMPLETION OF THE PROJECT.
6. THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE RIGHT-OF-WAY OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM.
7. TEMPORARY EROSION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND MAINTAINED WITHIN 24 HOURS FOLLOWING A STORM EVENT. SEDIMENT SHALL BE REMOVED TO INSURE THE FACILITIES WILL FUNCTION PROPERLY. THE FACILITIES SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
8. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORM WATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. NO DISTURBED SOIL SHALL REMAIN UNSTABILIZED FOR MORE THAN SEVEN CALENDAR DAYS.



SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

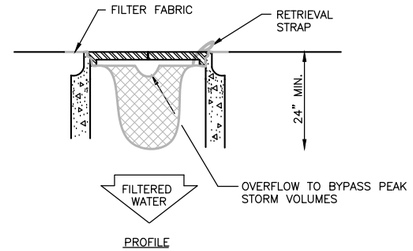
STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

STORM DRAIN INLET PROTECTION

STANDARD PLAN I-40.20-00

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Pasco Bakotich III 09-20-07
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation



PROFILE

NOTES:

1. REMOVE CATCH BASIN GRATING.
2. CLEAN DIRT AND DEBRIS FROM GRATING LEDGE.
3. LAY THE CATCH BASIN INSERT INSIDE THE BASIN
4. REPLACE THE GRATING, PINCHING THE INSERT FABRIC BETWEEN THE GRATING AND THE CATCH BASIN FRAME.
5. CUT OFF THE EXCESS FABRIC OFF WITH A BLADE KNIFE. A 3 TO 5 INCH WIDE STRIP OF FABRIC SHOULD BE LEFT AROUND THE OUTSIDE OF THE GRATING IF THE INSERT IS TO BE USED MORE THAN ONCE.

FILTER FABRIC CATCH BASIN INSERT FOR SEDIMENT ONLY
NTS

	REVISIONS	DATE	BY

DESIGNED K. CRAWFORD
DRAWN K. CRAWFORD
CHECKED J. WRIGHT
APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY
FILE NAME DETAILS
JOB No. 554-1598-141
DATE JULY 2021

JOHN LEWIS WRIGHT — STATE OF WASHINGTON — 46258 — REGISTERED PROFESSIONAL ENGINEER
3/24/22

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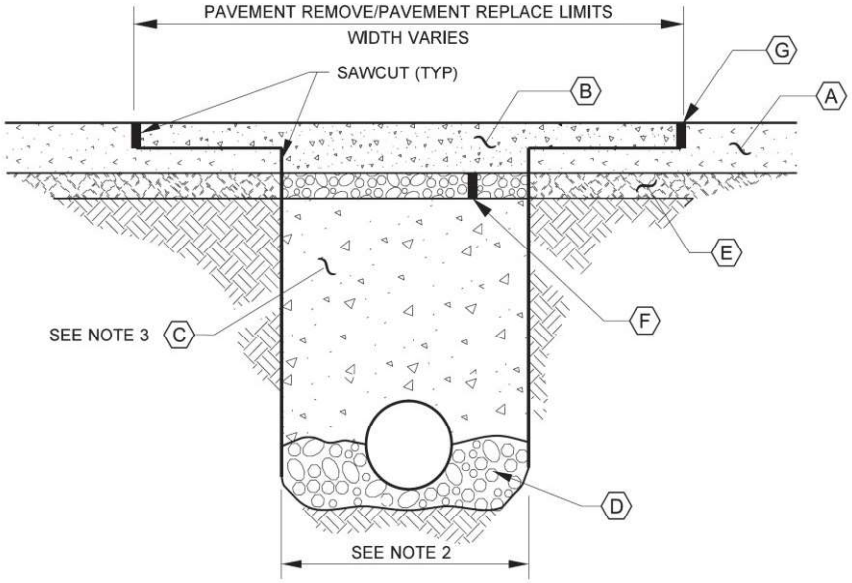
PROJECT NAME
THE TULALIP TRIBES
HERMOSA ROADS
SNOHOMISH COUNTY, WASHINGTON

TESC DETAILS

DRAWING NO.
32 OF 32

32



OPEN CUT CROSS SECTION
NTS

LEGEND

A Existing HMA (Hot Mix Asphalt) or PCCP (Portland Cement Concrete Pavement).

B HMA class ½ inch or PCCP: Depth and material shall match existing pavement. Removal and replacement limits of pavement to be determined at the time of utility permit/franchise review.

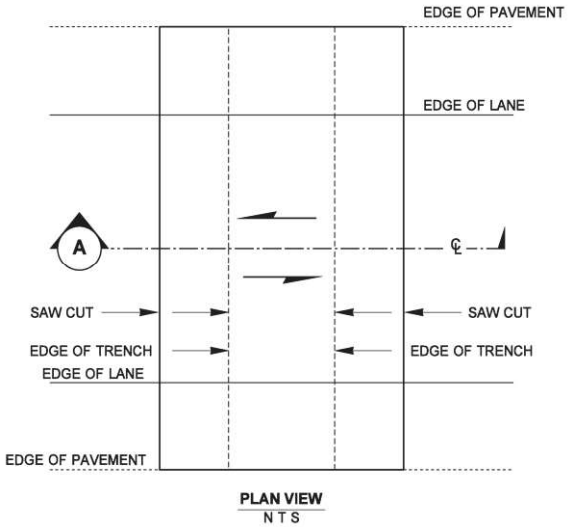
C Approved backfill material or CDF (Control Density Backfill) or as specified by WSDOT.

D Bedding material depth beneath the pipe/casing shall be six (6) inches. Additional pipe bedding shall be placed equal to half the diameter of the pipe/casing or six (6) inches, whichever is less.

E Existing crushed surfacing base course.

F Crushed surfacing base course depth shall match depth of existing crushed surfacing base course.

G HMA butt joint requires tack, seal, and sand. For PCCP, refer to General Note 5.



PLAN VIEW
NTS

GENERAL NOTES

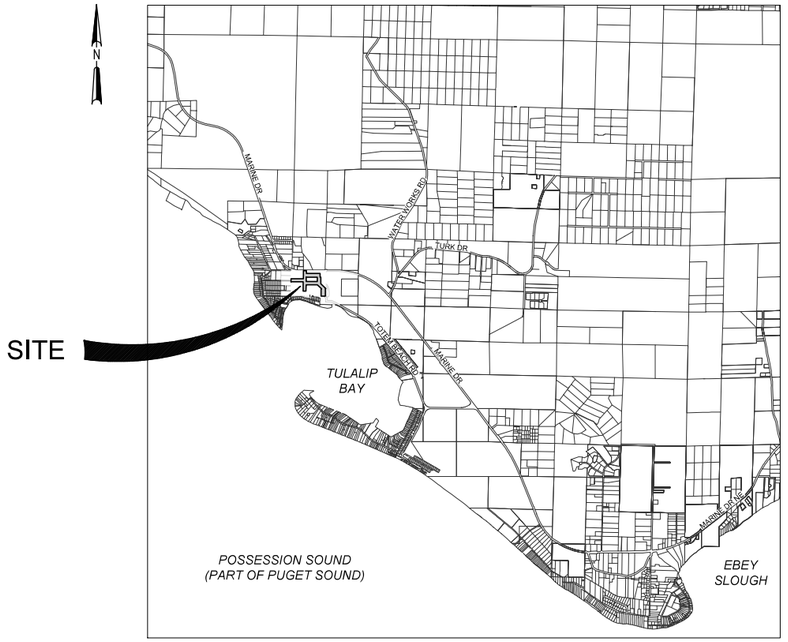
1. Trenching and pipe installation shall meet the requirements of WSDOT Standard Specification 7-08.
2. Maximum trench width shall not exceed casing/pipe diameter plus an additional one (1) foot on either side.
3. Compaction shall be method "C" per Standard Specification Section 2-03.3(14)C.
4. Minimum depth shall be sixty (60) inches from the finished surface to top of casing.
5. PCCP shall be replaced to the next panel joint in each direction as approved by WSDOT. All work shall be as specified in WSDOT Standard Specification Section 5-01.3(4).
6. When connecting to an existing facility under the pavement, pavement restoration may, at the department's discretion, include the full lane width and encroached shoulder.
7. Casing pipes shall extend a minimum of six (6) feet beyond the toe of fill slopes, bottom of ditchline, or outside of curb.
8. Tack asphalt per WSDOT Standard Specification 5-4.3(5)A.

Open Cut Crossing Detail

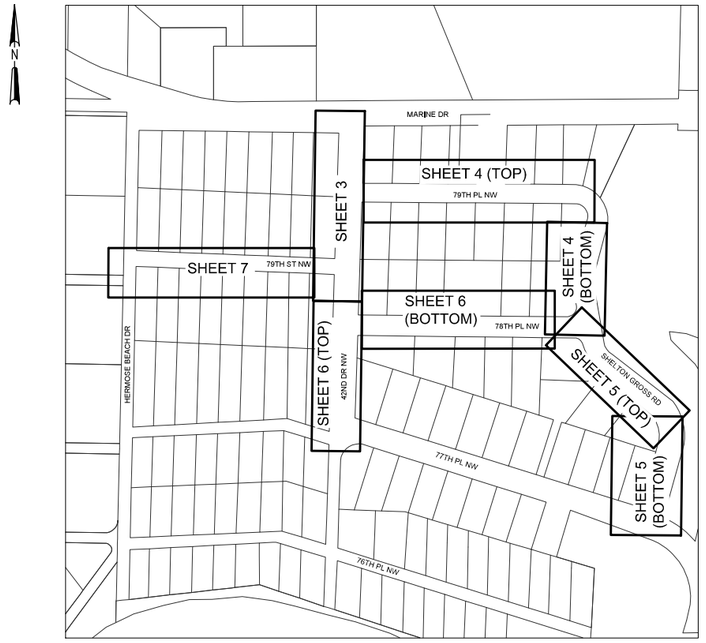
Figure 120-4a

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON



VICINITY MAP
NTS



SHEET LAYOUT KEY
NTS

PROJECT CONTACTS

ENGINEERING
DAVID EVANS AND ASSOCIATES INC.
14432 SE EASTGATE WAY, SUITE 400
MARY DAHL, PE
425-586-9756
MARY.DAHL@DEAINC.COM

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CELL: 425-508-9218
EMAIL: SDAVIS@TULALIPTRIBES-NSN.GOV

MIKE LESLIE, UTILITIES MANAGER
OFFICE: 360-529-7497
EMAIL: MIKELESLIE@TULALIP-NSN.GOV

DOUGLAS MCMURTRIE, HEALTH DEPARTMENT SANITARIAN
OFFICE: 360-716-4205
EMAIL: DMCMURTRIE@TULALIPTRIBES-NSN.GOV

SHEET INDEX

BID SCHEDULE B

811

SEC:	SEC. 21 & 22
TWP:	T 30 N
RGE:	R 4 E
DATUM:	
HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 07/01/21

△ NO.	REVIEWED BY: DATE	REVISION	BY	CK

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

COVER

VICINITY MAP, SHEET LAYOUT KEY, SHEET INDEX, AND PROJECT CONTACTS

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 1 OF 9
1

Plot Date: 7/1/2021 9:24 AM By: Scott Sticherbinine
Save Date: 7/1/2021 8:51 AM By: Sys File: P:\TYLIP\00000001\0400CAD\EC\SHEETS\EC-WATR-TLIP00000001-G1-2.dwg

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE RULES, REGULATIONS AND INSTRUCTIONS OF THE TULALIP UTILITIES AUTHORITY (TUA), THESE DRAWINGS AND THE SPECIFICATIONS.
2. TUA WILL ARRANGE WITH THE CONTRACTOR FOR ATTENDANCE AT A PRE-CONSTRUCTION CONFERENCE PRIOR TO THE START OF THE PROJECT.
3. WATER MAINS SHALL BE C900 PVC DR14 PUSH-ON JOINT PIPE EXCEPT WHERE RESTRAINED JOINTS ARE REQUIRED IN ACCORDANCE WITH THE RESTRAINT DETAILS SHOWN ON SHEET 9. FIRE HYDRANT LATERALS SHALL BE C900 PVC DR14 RESTRAINED JOINT.
4. ALL MECHANICAL JOINTS ARE TO BE RESTRAINED.
5. TYPICAL WATER SERVICE SHALL INCLUDE 1" CLASS 200 PE SERVICE LINE WITH 5/8" METER AND SETTER ASSEMBLY. OTHER SIZES SHALL BE AS NOTED ON PLANS. ALL SERVICES SHALL BE PUSHED UNDER EXISTING RETAINING WALLS /LANDSCAPING, ETC.
6. CONTRACTOR SHALL FOLLOW THE TRAFFIC CONTROL PLANS ON THE ROADWAY PLANS (BID SCHEDULE A) FOR WATER MAIN INSTALLATION.
7. MINIMUM SEPARATION OF POTABLE WATER MAINS AND SANITARY SEWER LINES SHALL BE TEN (10) FEET HORIZONTALLY FOR PARALLEL PIPE AND 18 INCHES VERTICALLY FOR PERPENDICULAR OR OBLIQUE CROSSINGS, MEASURED FROM OUTSIDE EDGE TO OUTSIDE EDGE. SITUATIONS OCCURRING WITH LESS THAN MINIMUM SEPARATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION C1-9 OF THE "CRITERIA FOR SEWAGE WORKS DESIGN" PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY LATEST REVISION.
8. THE CONTRACTOR SHALL NOTIFY THE TUA INSPECTOR AT LEAST SEVEN (7) DAYS IN ADVANCE AND MAKE THE NECESSARY ARRANGEMENTS WITH THE TUA INSPECTOR FOR CONNECTION TO EXISTING WATER SYSTEM. WATER SHUT OFFS REQUIRE A MINIMUM OF 72 HOURS PRIOR NOTIFICATION TO CUSTOMERS IMPACTED BY SHUT OFF. TUA WILL OPERATE ALL EXISTING VALVES.
9. CONTRACTOR SHALL ADHERE TO OSHA STANDARDS FOR WORKER AND PUBLIC SAFETY WHEN WORKING WITH ASBESTOS-CONTAINING PIPES.
10. LOCATION OF KNOWN EXISTING UTILITIES SHOWN SHOULD BE CONSIDERED AS ILLUSTRATIVE AND NOT NECESSARILY COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING, LOCATING, AND PROTECTING ALL UTILITIES WITHIN THE PROJECT AREA. CONTRACTOR SHALL EXPOSE AND LOCATE ALL CONFLICTING HORIZONTAL AND VERTICAL INTERFERING UTILITIES IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING ANY UTILITIES DAMAGED DURING CONSTRUCTION.
11. WHERE UTILITY CONFLICTS EXIST, INSTALL WATER MAIN BELOW OTHER UTILITIES EXCEPT SANITARY SEWERS UNLESS OTHERWISE INDICATED ON PLAN, MINIMUM VERTICAL SEPARATION BETWEEN UTILITIES SHALL BE 12-INCHES WITH HAND COMPACTION. AS REQUIRED, DEFLECT JOINTS WHERE POSSIBLE OR PROVIDE VERTICAL BENDS AND PIPE RESTRAINT IN ACCORDANCE WITH TUA STANDARDS. SEE DETAILS ON SHEET 9.
12. ALL OPERATING NUTS ON GATE VALVES ARE TO BE EXTENDED TO WITHIN 18 TO 24 INCHES OF FINAL GRADE, MINIMUM COVER OVER WATER MAIN SHALL BE 42 INCHES UNLESS OTHERWISE NOTED.
13. THE CONTRACTOR IS CAUTIONED THAT OVERHEAD ELECTRICAL LINES SHOWN ON THE DRAWINGS ARE LOCATED BY POINT-TO-POINT, POWER POLE-TO-POWER POLE CONNECTION AND NOT ALL OVERHEAD LINES ARE SHOWN ON PLANS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXTENT OF ANY HAZARD CREATED BY OVERHEAD ELECTRICAL POWER IN ALL AREAS AND SHALL FOLLOW PROCEDURES DURING CONSTRUCTION AS REQUIRED BY LAW AND REGULATIONS, NOT ALL OVERHEAD LINES ARE SHOWN.
14. NEW WATER MAINS ARE TO BE TESTED IN ACCORDANCE WITH TUA SPECIFICATIONS PRIOR TO CONNECTING TO THE EXISTING WATER SYSTEM. THE USE OF AN APPROVED BACKFLOW DEVICE IS REQUIRED TO PREVENT CROSS CONNECTION DURING FILLING AND TESTING.
15. CONTRACTOR IS REQUIRED TO FOLLOW ALL SAFETY REQUIREMENTS INCLUDING CONFINED SPACE ENTRY AND FALL PROTECTION REGULATIONS PRIOR TO ENTERING ANY CONFINED SPACE OR EXPOSURE TO ELEVATED STRUCTURE.
16. CONTRACTOR IS REQUIRED TO PROVIDE A COMPETENT PERSON(S) TRAINED TO IDENTIFY EXISTING OR PREVENTABLE HAZARDS RELATED TO TRENCH SAFETY, SOIL CONDITIONS, AND SHORING REQUIREMENTS. REPRESENTATIVES OF TUA SHALL NOT BE REQUIRED TO PERFORM THE ROLE OF COMPETENT PERSON FOR THIS PROJECT. NO WORKERS SHALL ENTER A TRENCH OR OTHER EXCAVATION FOUR FEET OR MORE IN DEPTH WITHOUT TRENCH SAFETY SYSTEM IN PLACE.
17. MINIMUM OF ONE LANE OF TRAFFIC WITH FLAGGERS SHALL BE PROVIDED AT ALL TIMES, EXCEPT AS NOTED IN THE TRAFFIC CONTROL PLANS.
18. ALL EXCAVATIONS SHALL BE SECURED BY THE CONTRACTOR AT THE END OF EACH WORKING DAY.
19. CONTRACTOR SHALL PROTECT OR RESTORE ALL LOT CORNER SURVEY MARKERS.
20. SYMBOLS ON THE DRAWINGS (BECAUSE OF THEIR SIZE) MAY NOT REPRESENT THE EXACT LOCATION OF EITHER PROPOSED OR EXISTING UTILITIES (EX GATE VALVES & HYDRANTS).
21. ALL FITTINGS SHALL BE RESTRAINED MECHANICAL RESTRAINTS (MEGALUGS), OR LOCKING GASKETS SUITABLE FOR PVC PIPE. CONCRETE THRUST BLOCKING SHALL BE USED ONLY WHERE APPROVED BY TUA. THRUST BLOCKS SHALL BE REQUIRED AT CONNECTIONS TO EXISTING AC MAIN. SEE DETAILS.
22. BOTH WATER SYSTEMS (EX. AND NEW) MUST REMAIN IN SERVICE WHILE SERVICES ARE CONNECTED TO THE NEW SYSTEM. COORDINATE WITH TUA INSPECTOR FOR RECONNECTION OF EX. SERVICES.
23. INSTALL WATER MAIN DEEPER AS NECESSARY AT PROPOSED STORM DRAIN CROSSING TO PROVIDE MIN. 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION. ALL STORM DRAIN SYSTEMS SHOWN ARE FOR ILLUSTRATIVE PURPOSES. SEE STORM DRAIN PLANS FOR STORM SYSTEM INSTALLATION.
24. ALL DISTURBED ROADE SURFACES ARE TO BE RESTORED PER THE ROADWAY PLANS IN BID SCHEDULE A.

LEGEND

PROPOSED	EXISTING (EX)	DESCRIPTION
		FLANGE JOINT
		MECHANICAL JOINT
		WATER FITTINGS
	WV	WATER VALVE
	WM	WATER METER
		FIRE HYDRANT
	ICV	IRRIGATION CONTROL VALVE
		SEWER MANHOLE
		SEWER CLEANOUT
		STORM DRAIN MANHOLE
		STORM CATCH BASIN
		STORM CLEANOUT
	P	POWER VAULT
		POWER POLE
		GUY ANCHOR
	P	POWER TRANSFORMER
	T	TELEPHONE VAULT
	T	TELEPHONE JUNCTION BOX
	TJR	TELEPHONE RISER
	TPC	TELEPHONE CABINET
		CABLE TV JUNCTION BOX
	GV	GAS VALVE
		MONITORING WELL
		END OF UTILITY LINE THAT CONTINUES
		STORM CULVERT
	SS	SANITARY SEWER PIPE
	SD	STORM DRAIN PIPE
	P	POWER LINE
		SECTION LINE
	FO	FIBER OPTIC (FROM TUA / DATED 2015)
	TV	CABLE TV LINE
		PROPERTY LINE
		EDGE OF WATER
		CENTER LINE
W	W	WATER PIPE
		WATER SERVICE
		BUILDING LINE
	EP	EDGE OF PAVEMENT
	EG	EDGE OF GRAVEL
		RIGHT-OF-WAY LINE
		ROCKERY
		DECIDUOUS TREE
		CONIFEROUS TREE

811

SEC: SEC. 21 & 22
TWP: T 30 N
RGE: R 4 E

DATUM:
HOR: NAD 83 (11)
VERT: NAVD 88

CHECKED BY: MCD
DESIGNED BY: WEG
DRAWN BY: SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 07/01/21

NO.	DATE	REVISION	BY	CK

REVIEWED BY: DATE:

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14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

GENERAL NOTES AND LEGEND

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 2 OF 9
2

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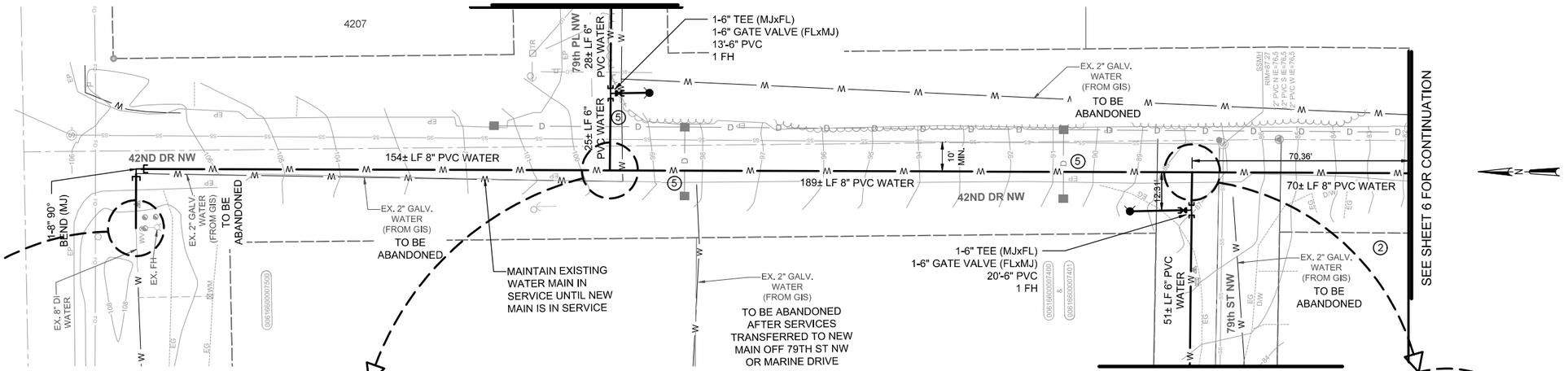
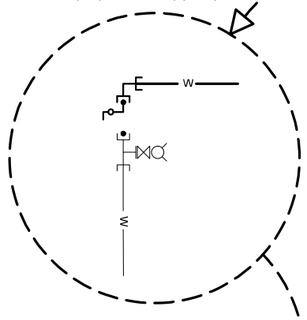
By: Scott Sticherbinine
By: Sys File: P:\TYLIP\TLIP00000001\0400CAD\EC\SHEETS\EC-WATR-TLIP00000001-G1-2.dwg

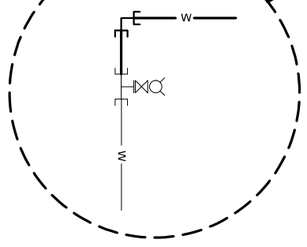
SEE SHEET 4 FOR CONTINUATION

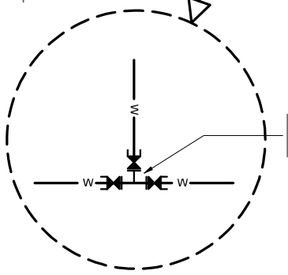


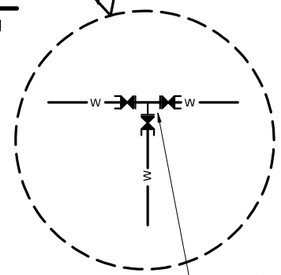
STEP 1
CONTRACTOR TO LOCATE EX. 8" MAIN AT FH TEE.
CONSTRUCT NEW PIPE TO INSTALL 90 DEGREE BEND IN LINE WITH EX. FH TEE.
PLUG EX. FH TEE
1-8" 90° BEND (MJ)
TEMP. BLOWOFF AND BLOCKING



STEP 2
CONNECT TO EX.
REMOVE TEMP. FITTINGS AND PLUG
17'-8" PVC







KEY NOTES

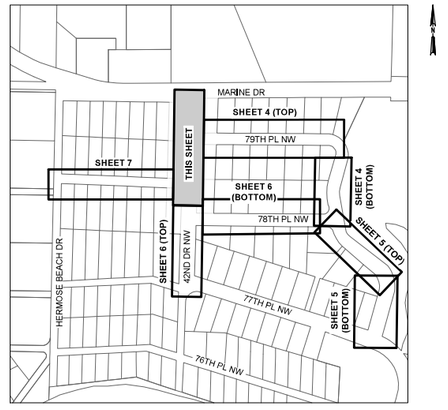
① REPLACE EX. SERVICE WITH NEW SERVICE AND PRV SET UP PER DETAIL 5. RECONNECT SERVICE TO NEW MAIN. CONNECT NEW SERVICE TO NEW MAIN AND AFTER NEW MAIN IS ON-LINE, RECONNECT CUSTOMER'S BACKSIDE LINE TO THE NEW SERVICE. COORDINATE WITH TUA FOR METER TRANSFER OR NEW METER PROVIDED BY TUA.

② CONTRACTOR TO LOCATE EX. SERVICE LINE. INSTALL NEW METER AND PRV AT PROPERTY LINE PER DETAIL 5 NEAR EX. SERVICE LINE. CONNECT NEW SERVICE TO NEW MAIN AND AFTER NEW MAIN IS ON-LINE, RECONNECT CUSTOMER'S BACKSIDE LINE TO THE NEW SERVICE. COORDINATE WITH TUA FOR NEW METER PROVIDED BY TUA.

③ INSTALL 1" TAP AND EXTEND TO PROPERTY LINE, TERMINATE IN METER BOX FOR FUTURE CONSTRUCTION. COORDINATE LOCATION WITH TUA.

④ INSTALL 2" TAP FOR TWO LOTS AND EXTEND TO PROPERTY LINE. PROVIDE MANIFOLD FOR TWO 1" SERVICE LINES AND CAP. INSTALL MANIFOLD IN METER BOX.

⑤ INSTALL WATER MAIN DEEPER AS NECESSARY AT PROPOSED STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION. SEE STORM DRAIN PLANS FOR STORM SYSTEM INSTALLATION.



SHEET LAYOUT KEY
NTS

811

SCALE
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(FEET)
1 INCH = 20 FT.

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RGE:	R 4 E
DATUM:	
HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 07/01/21

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Bellevue, WA 98007
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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

WATER PLANS
42ND DR NW

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 3 OF 9
3

Plot Date: 7/1/2021 1:46 PM By: Scott Stcherbinine
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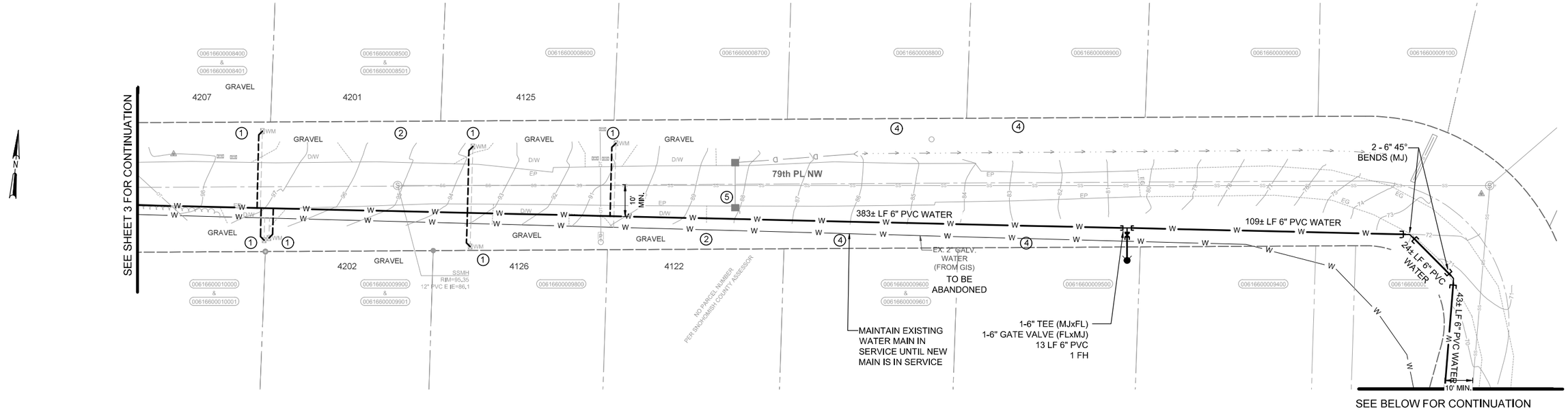

KEY NOTES

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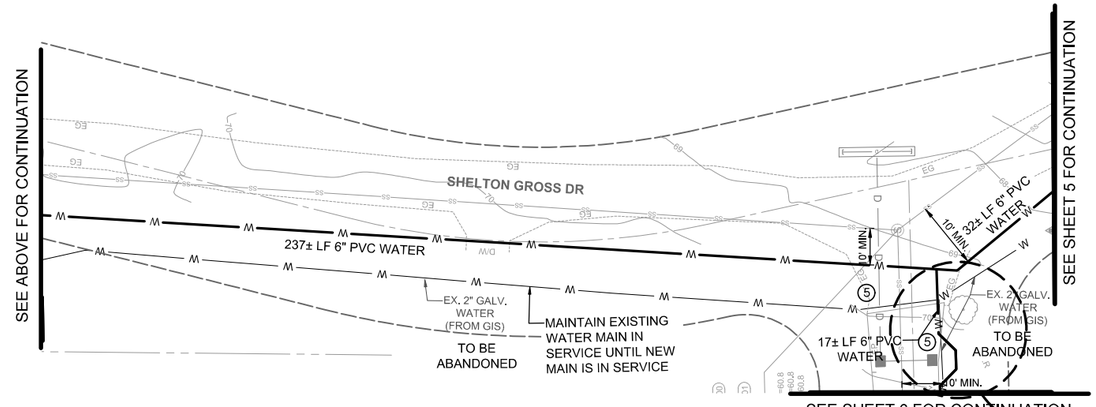
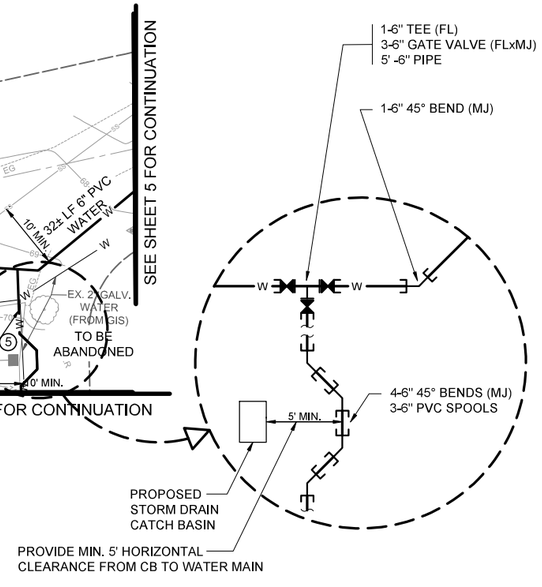
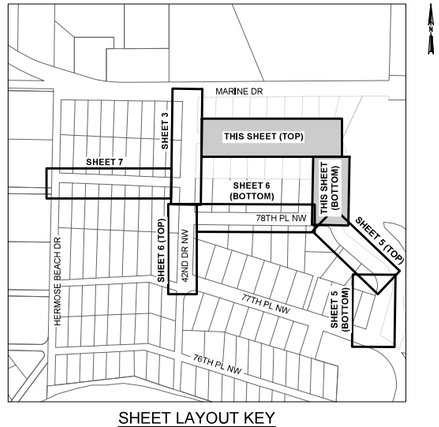
5. INSTALL WATER MAIN DEEPER AS NECESSARY AT PROPOSED STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION. SEE STORM DRAIN PLANS FOR STORM SYSTEM INSTALLATION.







SHEET LAYOUT KEY
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1 INCH = 20 FT.

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DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 07/01/21

NO.	DATE	REVISION	BY	CK

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14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

WATER PLANS

79TH PL NW & SHELTON GROSS DR

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 4 OF 9
4

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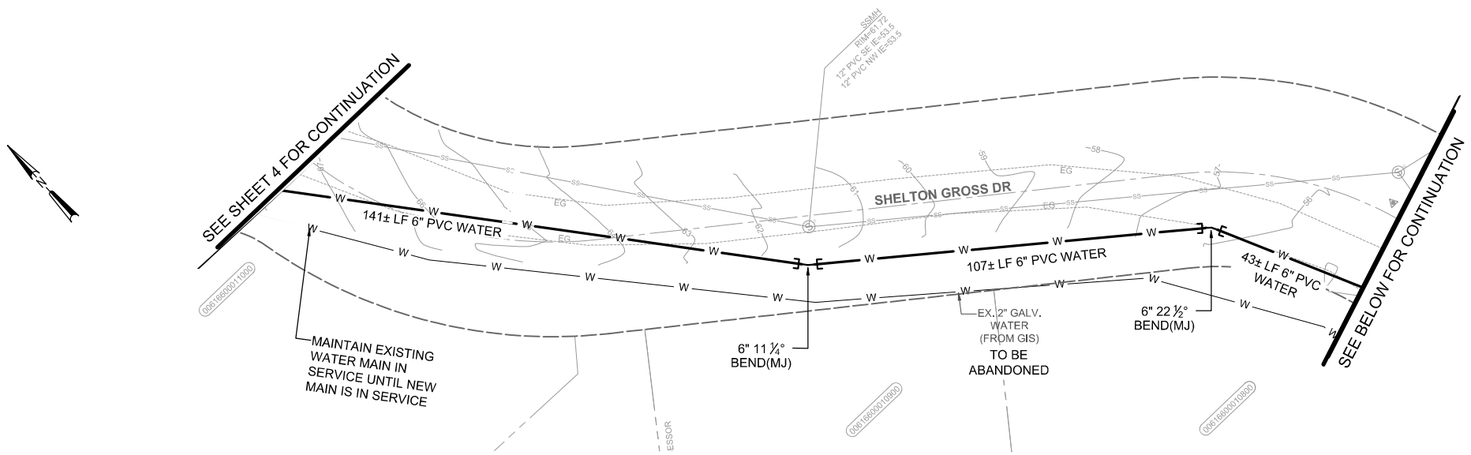

KEY NOTES

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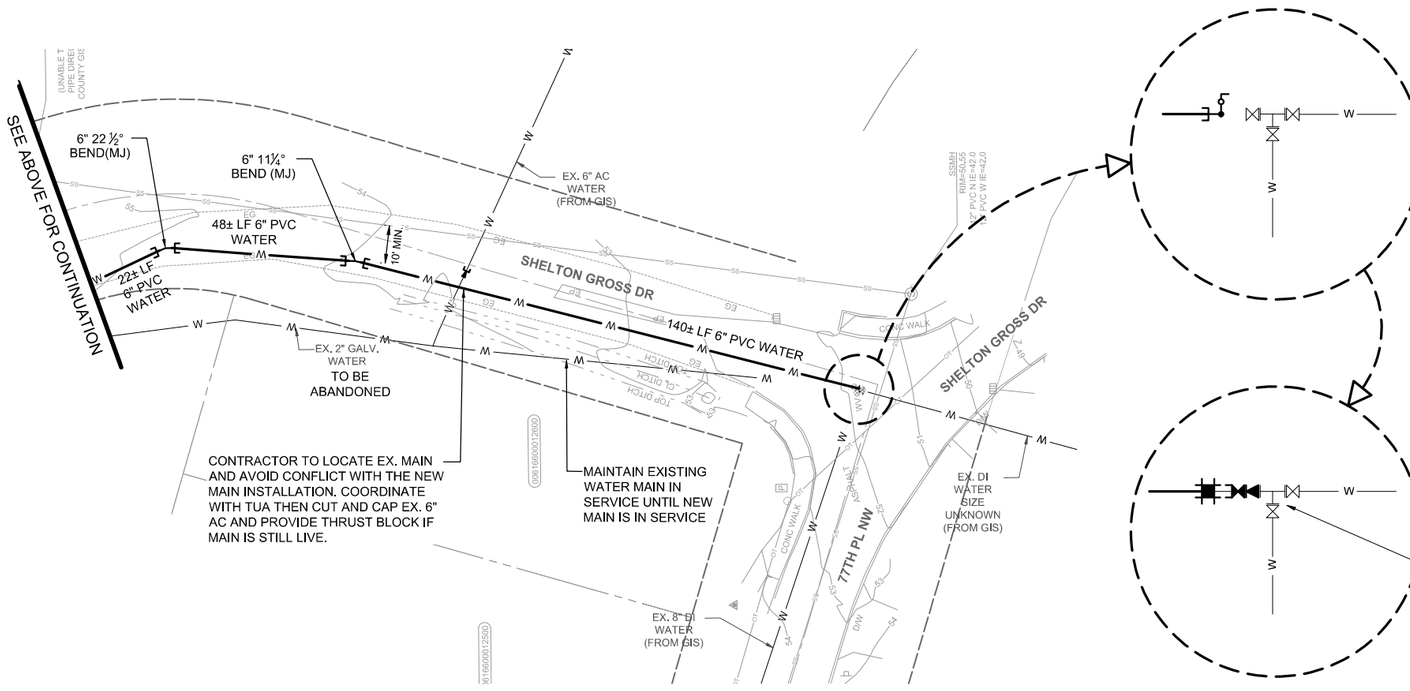
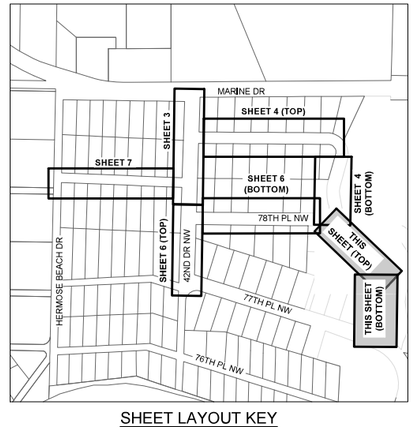


STEP 1
BEFORE TRENCHING CONTRACTOR SHALL POTHOLE TO LOCATE EX. MAIN. CONTRACTOR TO VERIFY SIZE AND ORIENTATION OF EXISTING TEE AND VALVE CLUSTER. BENDS OF 45° OR LESS ARE TO BE USED AS NEEDED TO ALIGN PROPOSED PIPE TO CONNECTION.

CONSTRUCT NEW 6" MAIN TO WITHIN 5' THEN CAP WITH TEMP. BLOWOFF FOR PURITY AND PRESSURE TESTING

STEP 2
1. CLOSE VALVES TO SOUTH AND WEST.
2. DISCONNECT, CAP, AND ABANDON EX. MAIN TO THE NORTH
3. REMOVE AND REPLACE EX. 6" GATE VALVE AT CONNECTION TO EX.

1-6"X8" REDUCER (FL) (IF REQUIRED)
1-6" GATE VALVE (FLxMJ)
5'-6" PVC SPOOL
1-6" COUPLING (MJ)



SHEET LAYOUT KEY
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SCALE
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MARY C. DAHL STATE OF WASHINGTON 23619 REGISTERED PROFESSIONAL ENGINEER
07/01/21

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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

WATER PLANS

SHELTON GROSS DR

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 5 OF 9
5

Plot Date: 7/1/2021 1:46 PM By: Scott Stcherbinine
Save Date: 7/1/2021 10:40 AM By: Sys File: P:\TLIP\00000001\0400CAD\ESHEETS\EC-WATR-TLIP00000001-W1-5.dwg

KEY NOTES

1. REPLACE EX. SERVICE WITH NEW SERVICE AND PRV SET UP PER DETAIL 5. RECONNECT SERVICE TO NEW MAIN. CONNECT NEW SERVICE TO NEW MAIN AND AFTER NEW MAIN IS ON-LINE, RECONNECT CUSTOMER'S BACKSIDE LINE TO THE NEW SERVICE. COORDINATE WITH TUA FOR METER TRANSFER OR NEW METER PROVIDED BY TUA.

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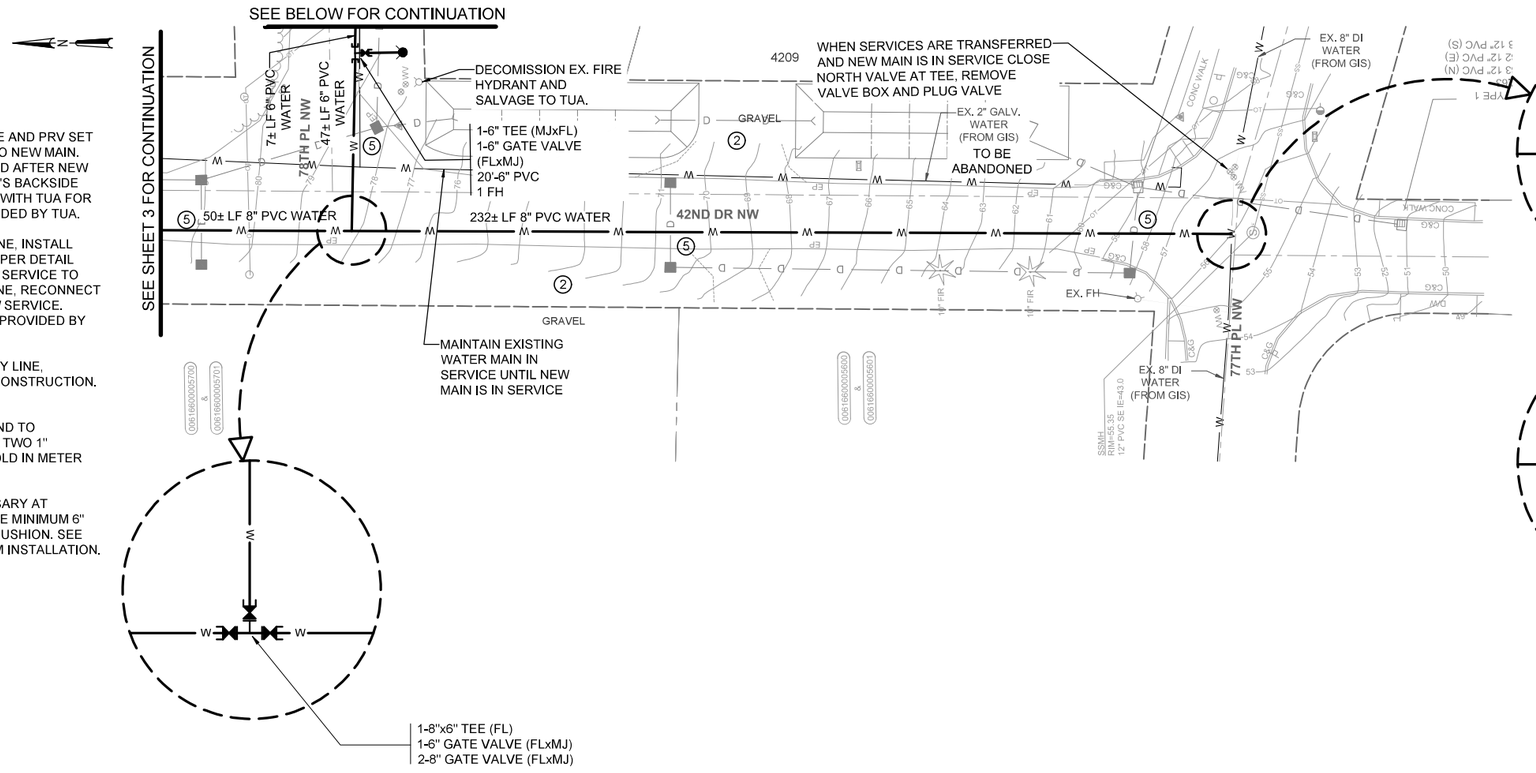

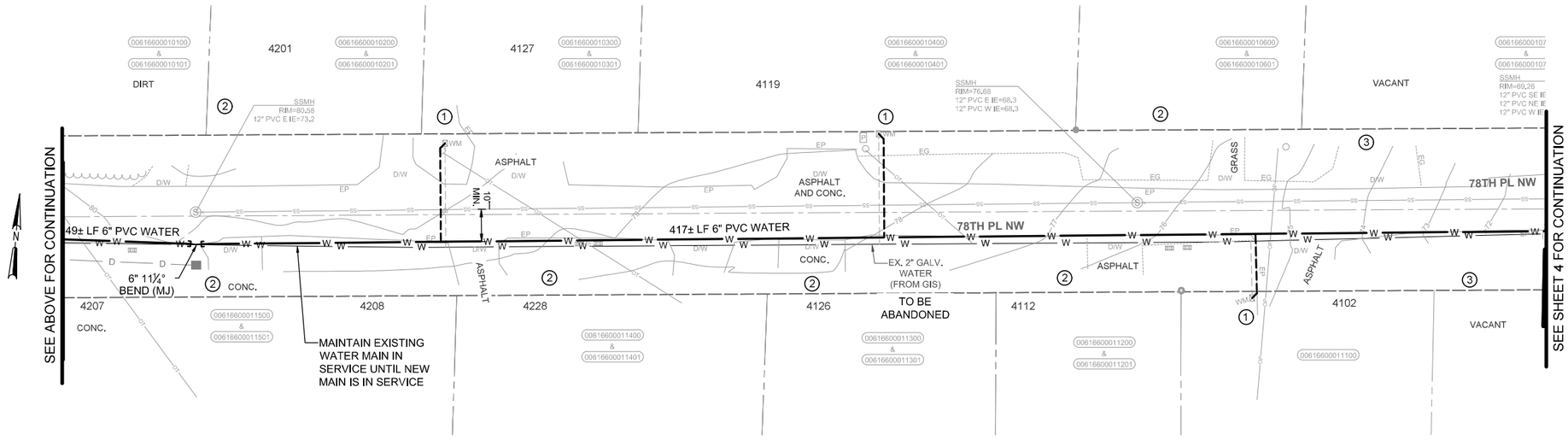

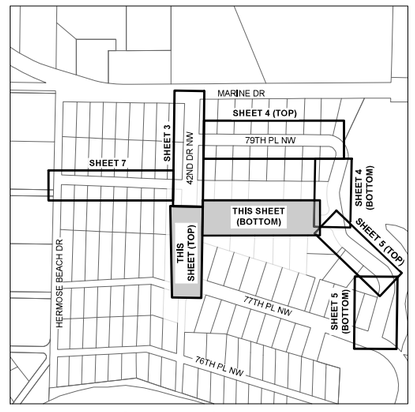

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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

WATER PLANS

42ND DR NW & 78TH PL NW

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 6 OF 9
6

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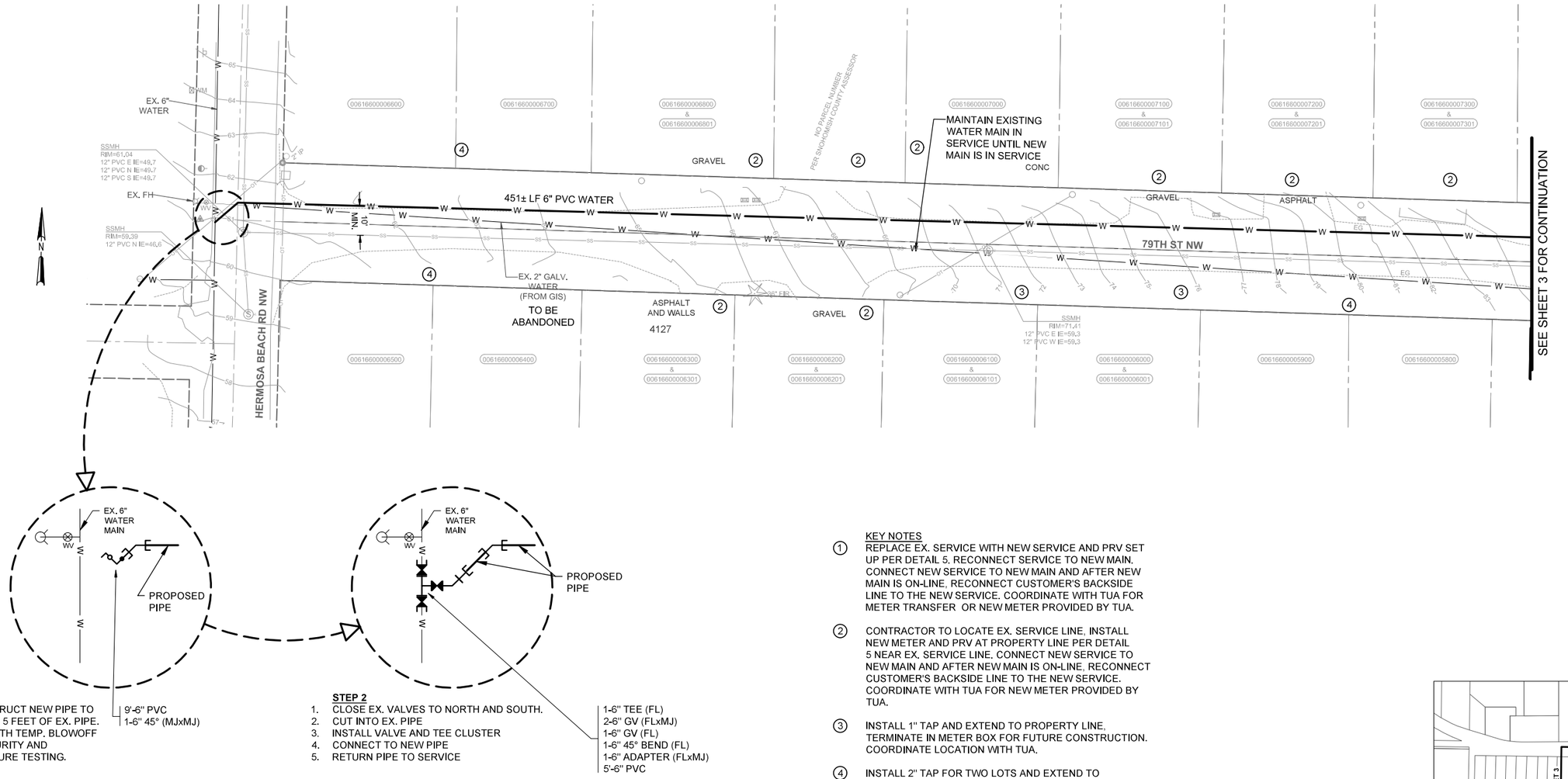


STEP 1
1. CONSTRUCT NEW PIPE TO WITHIN 5 FEET OF EX. PIPE.
2. CAP WITH TEMP. BLOWOFF FOR PURITY AND PRESSURE TESTING.

9'-6" PVC
1-6" 45° (MJxMJ)

STEP 2
1. CLOSE EX. VALVES TO NORTH AND SOUTH.
2. CUT INTO EX. PIPE
3. INSTALL VALVE AND TEE CLUSTER
4. CONNECT TO NEW PIPE
5. RETURN PIPE TO SERVICE

1-6" TEE (FL)
2-6" GV (FLxMJ)
1-6" GV (FL)
1-6" 45° BEND (FL)
1-6" ADAPTER (FLxMJ)
5'-6" PVC

KEY NOTES

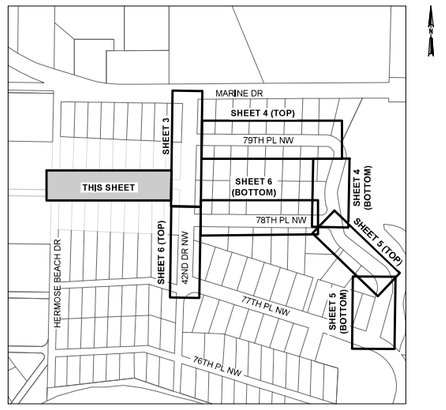
① REPLACE EX. SERVICE WITH NEW SERVICE AND PRV SET UP PER DETAIL 5. RECONNECT SERVICE TO NEW MAIN. CONNECT NEW SERVICE TO NEW MAIN AND AFTER NEW MAIN IS ON-LINE, RECONNECT CUSTOMER'S BACKSIDE LINE TO THE NEW SERVICE. COORDINATE WITH TUA FOR METER TRANSFER OR NEW METER PROVIDED BY TUA.

② CONTRACTOR TO LOCATE EX. SERVICE LINE, INSTALL NEW METER AND PRV AT PROPERTY LINE PER DETAIL 5 NEAR EX. SERVICE LINE. CONNECT NEW SERVICE TO NEW MAIN AND AFTER NEW MAIN IS ON-LINE, RECONNECT CUSTOMER'S BACKSIDE LINE TO THE NEW SERVICE. COORDINATE WITH TUA FOR NEW METER PROVIDED BY TUA.

③ INSTALL 1" TAP AND EXTEND TO PROPERTY LINE, TERMINATE IN METER BOX FOR FUTURE CONSTRUCTION. COORDINATE LOCATION WITH TUA.

④ INSTALL 2" TAP FOR TWO LOTS AND EXTEND TO PROPERTY LINE, PROVIDE MANIFOLD FOR TWO 1" SERVICE LINES AND CAP. INSTALL MANIFOLD IN METER BOX.

⑤ INSTALL WATER MAIN DEEPER AS NECESSARY AT PROPOSED STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION. SEE STORM DRAIN PLANS FOR STORM SYSTEM INSTALLATION.



SHEET LAYOUT KEY
NTS

811

SCALE
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(FEET)
1 INCH = 20 FT.

SEC: SEC. 21 & 22
TWP: T 30 N
RGE: R 4 E

DATUM:
HOR: NAD 83 (11)
VERT: NAVD 88

CHECKED BY: MCD
DESIGNED BY: WEG
DRAWN BY: SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 07/01/21

NO.	DATE	REVIEWED BY: / REVISION	BY	CK
		DATE:		

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
WEST RESIDENTIAL AREA
TULALIP TRIBES OF WASHINGTON
WATER PLANS
79TH ST NW

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 7 OF 9
7

Plot Date: 7/1/2021 1:46 PM
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By: Sys
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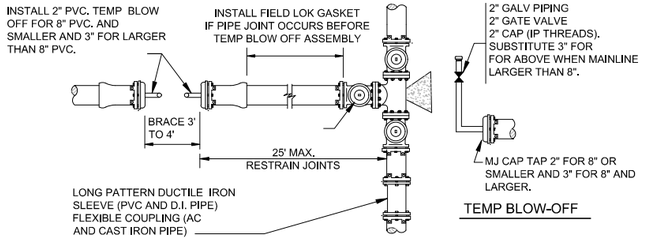
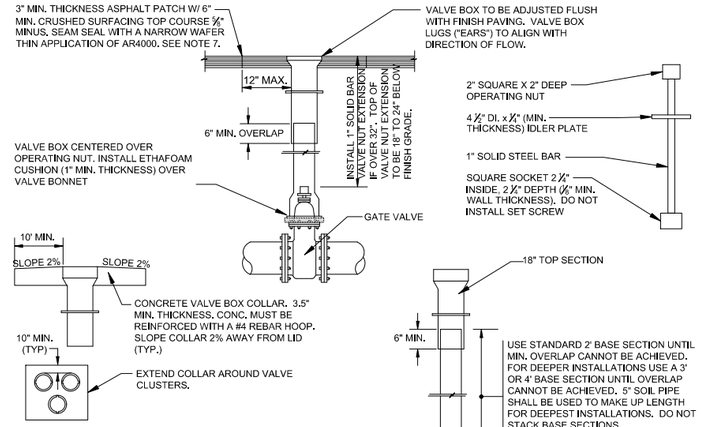


NOTES:

1. TAPPED CONNECTIONS NOT ALLOWED WITHOUT SPECIFIC APPROVAL FROM TUA.
2. NO CONNECTION WILL BE ALLOWED UNTIL ALL PRESSURE TESTING COMPLETED, AND SATISFACTORY BACTERIOLOGICAL TEST RECEIVED. SEE CROSS CONNECTION CONTROL REQUIREMENTS IN SPECIFICATIONS.
3. TAPPING SLEEVE TO BE STAINLESS STEEL FOR PVC AND AC PIPE AND EPOXY COATED STEEL FOR DUCTILE OR CAST IRON PIPE. CLOSEST EDGE OF TAPPING SLEEVE MUST BE 3' (MIN.) FROM COUPLING ON AC PIPE.
4. SEE DETAILS FOR VALVE BOX, THRUST BLOCKING, PIPE AND FITTING RESTRAINT REQUIREMENTS. BACKFILL PER JURISDICTIONAL REQUIREMENTS WHEN IN ASPHALT. ALL OTHER AREAS PER THE STANDARD SPECIFICATIONS.
5. TEMP BLOW OFF'S MUST BE PROTECTED FROM DAMAGE. PLACE IN TRAFFIC BOX IF REQUIRED. WATER OUTAGE ONLY ALLOWED TUESDAY THROUGH THURSDAY 9:00AM TO 3:00PM. (7) WORKING DAYS NOTICE REQUIRED.
6. ALL MJ JOINTS TO BE MEGALUG OR EQUAL, SUITABLE FOR USE WITH PVC PIPE.
7. SIMILAR TEMP BLOW OFF REQUIREMENTS FOR TAPPED CONNECTIONS. LOCATE BLOW OFF OUT OF ASPHALT WHEN POSSIBLE.
8. ALL FITTINGS AND PIPE SHALL BE STERILE SWABBED. CONNECTION SHALL BE INSPECTED FOR VISUAL LEAKAGE UNDER FULL LINE PRESSURE PRIOR TO BACKFILL.

1 CONNECTION REQUIREMENTS

NOT TO SCALE

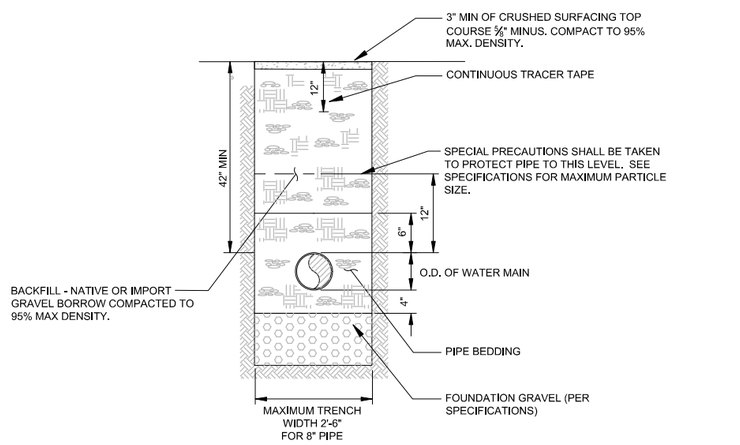


NOTES:

1. VALVE BOX AND LID TO BE 045/046 - SEATTLE/TACOMA TOP & LID.
2. VALVE BOX LIDS TO BE 4" DEEP IN TRAFFIC AREAS AND A MIN. OF 3" IN OTHER LOCATIONS. LOCKING VALVE BOX LIDS REQUIRED IF LIDS WILL NOT STAY PUT DUE TO TRAFFIC.
3. SAWCUT VALVE BOX COMPONENTS. BROKEN OR JAGGED VALVE BOX SECTIONS NOT ACCEPTABLE.
4. OVERLAY ADJUSTMENT RINGS NOT ALLOWED, UNLESS APPROVED BY TUA.
5. VALVE BOX COLLAR REQUIRED IF VALVE BOX OUT OF PAVING. COLLARS TO BE FLUSH WITH FINISH SURFACE. SLOPE COLLARS AWAY FROM LID @ 2% (TYP.)
6. VALVE BOX LIDS TO BE PAINTED (2) COATS SAFETY YELLOW PAINT.
7. VALVE BOXES SHALL BE ADJUSTED AFTER PAVING AND PATCHED AS SHOWN ABOVE. VALVES CONNECTED TO THE EXISTING SYSTEM SHALL BE MADE ACCESSIBLE AT ALL TIMES.

2 VALVE BOX INSTALLATION

NOT TO SCALE

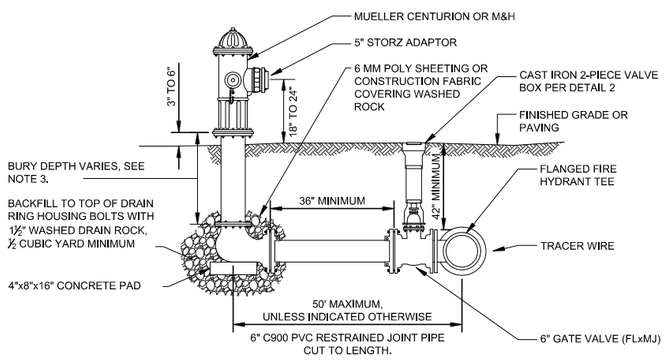


NOTES:

1. PIPE BEDDING FOR PVC PIPE SHALL BE ⅝" CRUSHED SURFACING.
2. PUMPING SOILS OR SOILS THAT CANNOT BE COMPACTED SHALL BE REMOVED FROM THE TRENCH BACKFILL IMMEDIATELY.
3. BACKFILL MATERIAL PLACED IN 6" LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY. BEDDING MATERIAL PLACED IN 4" LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY.
4. REFER TO STORM DRAIN PLANS FOR FINAL SURFACING.

3 TYPICAL TRENCH SECTION

NOT TO SCALE

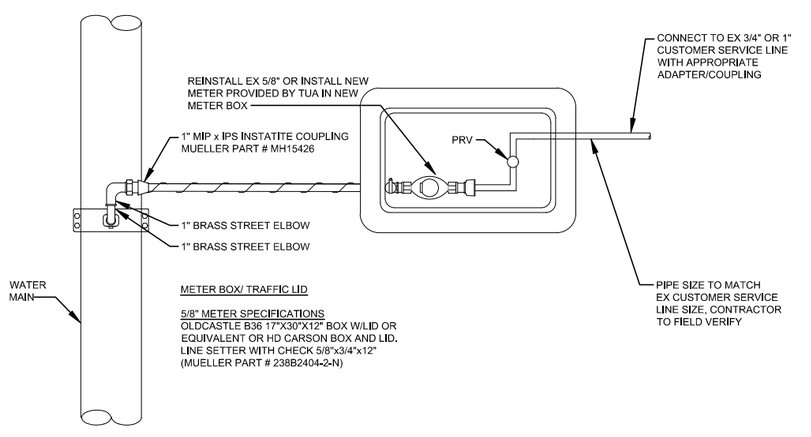


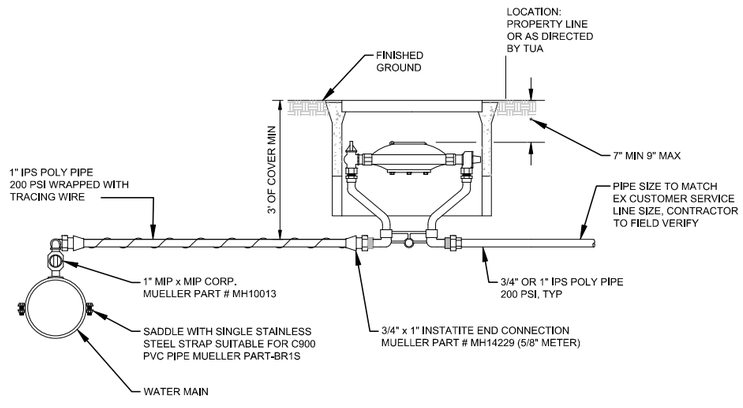
NOTES:

1. ANY HYDRANT SETBACK LONGER THAN ONE FULL LENGTH OF PIPE THAT REQUIRES A BELL AND SPIGOT WILL NEED A FIELD LOK GASKET, AND MAY REQUIRE A THRUST BLOCK AT THE DIRECTION OF THE INSPECTOR.
2. MAINTAIN MINIMUM 3' RADIUS UNOBSTRUCTED WORKING AREA AROUND HYDRANT INCLUDING FUTURE IMPROVEMENTS.
3. HYDRANT BURY DEPTH SHALL BE DETERMINED ON SITE BEFORE HYDRANT ORDER AND DELIVERY.

4 FIRE HYDRANT

NOT TO SCALE





5 TYPICAL WATER SERVICE FOR A ⅝" METER ASSEMBLY

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HOR:	NAD 83 (11)
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DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 07/01/21

NO.	DATE	REVIEWED BY: / DATE: REVISION	BY	CK

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

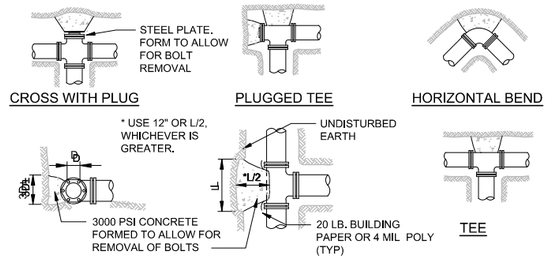
TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
WEST RESIDENTIAL AREA

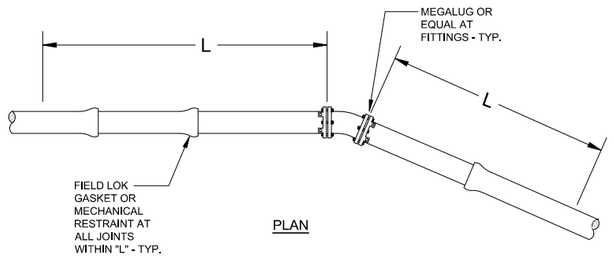
TULALIP TRIBES OF WASHINGTON

DETAILS

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 8 OF 9
8

Plot Date: 7/1/2021 10:24 AM By: Scott Stcherbinine
Save Date: 7/1/2021 10:18 AM File: P:\1T\TLIP00000001\0400CAD\EC\SHEETS\EC-WATR-TLIP00000001-01-2.dwg





"L" LENGTH REQUIRED EACH LEG PAST FITTING (FT)					
	TEE OR PLUG	90°	45°	22.5°	11.25°
6"	79	38	16	8	4
8"	103	50	21	10	5

NOTES:

1. RESTRAINED LENGTH SHALL BE ADJUSTED IF CONDITIONS DIFFER FROM ASSUMPTIONS.
2. IF RESTRAINED LENGTH SHOWN IS NOT ACHIEVABLE, THRUST BLOCK SHALL ALSO BE USED. SEE DETAIL 7.
3. RESTRAINED LENGTHS CAN BE ADJUSTED WITH SITE SPECIFIC SOILS INFORMATION, ENGINEERED DESIGN AND TUA APPROVAL.
4. MULTIPLE FITTINGS IN MULTIPLE PLANES SHALL BE DESIGNED AND STAMPED ON INDIVIDUAL BASIS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.

ASSUMPTIONS

1. TEST PRESSURE 200 PSI.
2. LAYING CONDITION 3.
3. SAND-SILT SOIL DESIGNATION.
4. COVER ON 6"-10" DIA. AT 3 FEET; COVER ON 12"-16" AT 4 FEET.
5. SAFETY FACTOR 1.5
6. VALUES DEVELOPED WITH DIPRA THRUST RESTRAINT CALCULATOR.

6 HORIZONTAL BEND RESTRAINT

NOT TO SCALE

THRUST BLOCK TABLE					
PIPE SIZE	TEE OR END PLUG	90°	45°	22 ½°	11 ¼°
4" OR 6"	3	4	2	2	2
8"	6	7	4	2	2
12"	12	16	9	5	3
16"	21	29	16	8	4

MINIMUM BEARING AREA AGAINST UNDISTURBED EARTH (SQUARE FEET)

NOTES:

1. BEARING AREA OF CONC. THRUST BLOCK BASED ON 200 PSI PRESSURE AND SOIL BEARING LOAD OF 2000 POUNDS PER SQUARE FOOT.
2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPES, PRESSURES AND SOIL COMPACTION.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF ½ SQUARE FOOT BEARING AGAINST THE FITTING. SIDES SHALL BE FORMED WITH PLYWOOD OR EQUIVALENT.
4. THRUST BLOCK SHALL BEAR AGAINST FITTING ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT DISMANTLING OF JOINTS.
5. CONCRETE TO BE 3000 PSI MINIMUM. PRE-MIX CONCRETE IS PREFERRED. IF CONCRETE IS HAND MIXED THE PROPORTIONS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. COMPRESSIVE TESTS OF "HAND MIXED" CONCRETE MAY BE REQUIRED. PRE-INSPECTION OF BLOCKING AREA REQUIRED PRIOR TO PLACEMENT OF CONCRETE.
6. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
7. THRUST BLOCK USED ONLY WHEN SHOWN ON PLANS OR WHEN CONNECTING TO EXISTING PIPE WHERE EXISTING JOINT RESTRAINT IS UNKNOWN.

7 THRUST BLOCKING DETAIL

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CHECKED BY: MCD
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MARY C. DAHL STATE OF WASHINGTON 23619 REGISTERED PROFESSIONAL ENGINEER
07/01/21

△ REVIEWED BY: DATE:

NO.	DATE	REVISION	BY	CK

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Bellevue, WA 98007
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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I WEST RESIDENTIAL AREA

TULALIP TRIBES OF WASHINGTON

DETAILS

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 9 OF 9
9

Plot Date: 7/1/2021 10:24 AM
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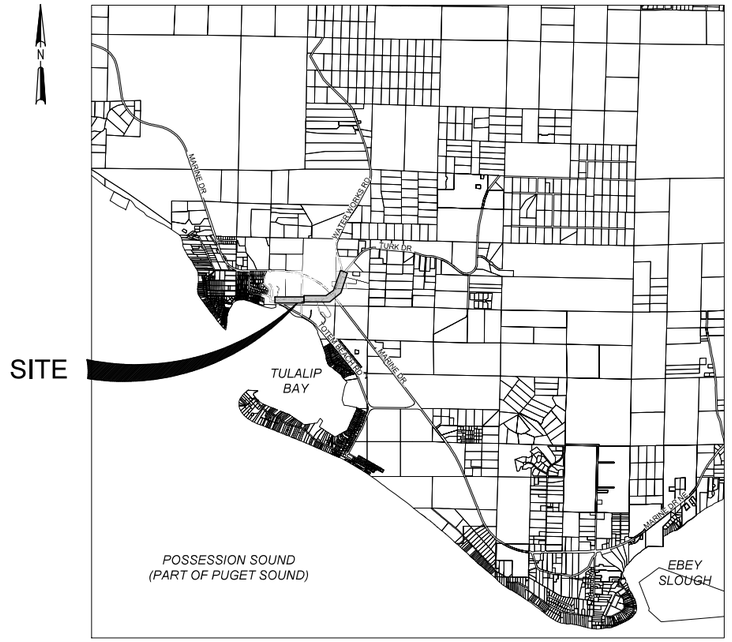
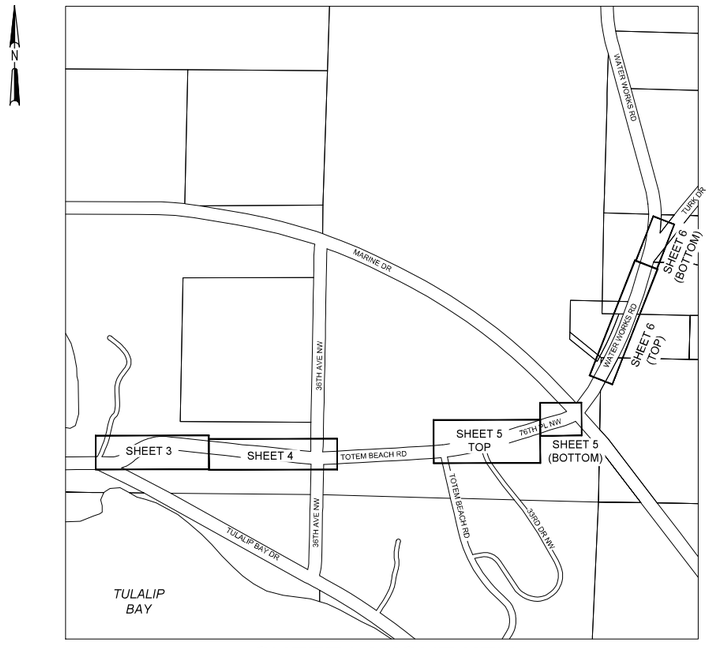
TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA
INDIAN HEALTH SERVICES PO 20-M91

TULALIP TRIBES OF WASHINGTON



VICINITY MAP
NTS



SHEET LAYOUT KEY
NTS

PROJECT CONTACTS

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MARY DAHL, PE
425-586-9756
MARY.DAHL@DEAINC.COM

TRIBAL CONTACTS
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CELL: 425-508-9218
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OFFICE: 360-529-7497
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OFFICE: 360-716-4205
EMAIL: DMCMURTRIE@TULALIPTRIBES-NSN.GOV

SHEET INDEX

SHEET #	SHEET DESCRIPTION
1	COVER, VICINITY MAP, SHEET LAYOUT KEY, SHEET INDEX, AND PROJECT CONTACTS
2	GENERAL NOTES AND LEGEND
3	BID SCHEDULE C - WATER PLAN - TOTEM BEACH ROAD
4	BID SCHEDULE C - WATER PLAN - TOTEM BEACH ROAD
5	BID SCHEDULE C - WATER PLAN - 76TH PL NW
6	BID SCHEDULE C - WATER PLAN - 76TH PL NW & MARINE DR
7	BID SCHEDULE D - WATER PLAN - WATER WORKS ROAD
8	TRAFFIC CONTROL PLANS AND DETAILS
9	DETAILS

BID SCHEDULE C
BID SCHEDULE D

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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA
TULALIP TRIBES OF WASHINGTON
COVER
VICINITY MAP, SHEET LAYOUT KEY,
SHEET INDEX, AND PROJECT CONTACTS

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 1 OF 9
1

Plot Date: 1/25/2022 3:48 PM By: Billy Gibbs
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GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE RULES, REGULATIONS AND INSTRUCTIONS OF THE TULALIP UTILITIES AUTHORITY (TUA), AS AGENT OF THE TULALIP TRIBES, THESE DRAWINGS AND THE SPECIFICATIONS.
2. TUA WILL ARRANGE WITH THE CONTRACTOR FOR ATTENDANCE AT A PRE-CONSTRUCTION CONFERENCE PRIOR TO THE START OF THE PROJECT.
3. WATER MAINS SHALL BE C900 PVC DR14 PUSH-ON JOINT PIPE EXCEPT WHERE RESTRAINED JOINTS ARE REQUIRED IN ACCORDANCE WITH THE RESTRAINT DETAILS SHOWN ON SHEET 9. FIRE HYDRANT LATERALS SHALL BE C900 PVC DR14 RESTRAINED JOINT.
4. ALL MECHANICAL JOINTS ARE TO BE RESTRAINED.
5. TYPICAL WATER SERVICE SHALL INCLUDE 1" CLASS 200 PE SERVICE LINE WITH 5/8" METER. OTHER SIZES SHALL BE NOTED ON PLANS. ALL SERVICES SHALL BE PUSHED UNDER EXISTING RETAINING WALLS /LANDSCAPING, ETC.
6. CONTRACTOR SHALL FOLLOW THE TRAFFIC CONTROL PLANS ON SHEET 8 AND, IF REQUIRED, SHALL PREPARE A TRAFFIC CONTROL PLAN FOR REVIEW BY TUA AND/OR SNOHOMISH COUNTY.
7. MINIMUM SEPARATION OF POTABLE WATER MAINS AND SANITARY SEWER LINES SHALL BE TEN (10) FEET HORIZONTALLY FOR PARALLEL PIPE AND 18 INCHES VERTICALLY FOR PERPENDICULAR OR OBLIQUE CROSSINGS, MEASURED FROM OUTSIDE EDGE TO OUTSIDE EDGE. SITUATIONS OCCURRING WITH LESS THAN MINIMUM SEPARATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION C1-9 OF THE "CRITERIA FOR SEWAGE WORKS DESIGN" PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY LATEST REVISION.
8. THE CONTRACTOR SHALL NOTIFY THE TUA INSPECTOR AT LEAST SEVEN (7) DAYS IN ADVANCE AND MAKE THE NECESSARY ARRANGEMENTS WITH THE TUA INSPECTOR FOR CONNECTION TO EXISTING WATER SYSTEM. WATER SHUT OFFS REQUIRE A MINIMUM OF 72 HOURS PRIOR NOTIFICATION. TUA WILL OPERATE ALL EXISTING VALVES.
9. CONTRACTOR SHALL ADHERE TO OSHA AND WASHINGTON STATE STANDARDS FOR WORKER AND PUBLIC SAFETY WHEN WORKING WITH ASBESTOS-CONTAINING PIPES.
10. LOCATION OF KNOWN EXISTING UTILITIES SHOWN SHALL BE CONSIDERED AS ILLUSTRATIVE AND NOT NECESSARILY COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING, LOCATING, AND PROTECTING ALL UTILITIES WITHIN THE PROJECT AREA. CONTRACTOR SHALL EXPOSE AND LOCATE ALL CONFLICTING HORIZONTAL AND VERTICAL INTERFERING UTILITIES IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING ANY UTILITIES DAMAGED DURING CONSTRUCTION.
11. WHERE CONFLICTS EXIST, INSTALL WATER MAIN BELOW OTHER UTILITIES EXCEPT SANITARY SEWERS UNLESS OTHERWISE INDICATED ON PLAN. MINIMUM VERTICAL SEPARATION BETWEEN UTILITIES SHALL BE 12-INCHES WITH A HAND COMPACTION. AS REQUIRED, DEFLECT JOINTS WHERE POSSIBLE OR PROVIDE VERTICAL BENDS AND PIPE RESTRAINT IN ACCORDANCE WITH TUA STANDARDS. SEE DETAIL 8 ON SHEET 9.
12. ALL OPERATING NUTS ON GATE VALVES ARE TO BE EXTENDED TO WITHIN 18 TO 24 INCHES OF FINAL GRADE. MINIMUM COVER OVER WATER MAIN SHALL BE 42 INCHES UNLESS OTHERWISE NOTED.
13. THE CONTRACTOR IS CAUTIONED THAT OVERHEAD ELECTRICAL LINES SHOWN ON THE DRAWINGS ARE LOCATED BY POINT-TO-POINT, POWER POLE-TO-POWER POLE CONNECTION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXTENT OF ANY HAZARD CREATED BY OVERHEAD ELECTRICAL POWER IN ALL AREAS AND SHALL FOLLOW PROCEDURES DURING CONSTRUCTION AS REQUIRED BY LAW AND REGULATIONS.
14. NEW WATER MAINS ARE TO BE TESTED IN ACCORDANCE WITH TUA SPECIFICATIONS PRIOR TO CONNECTING TO THE EXISTING WATER SYSTEM. THE USE OF AN APPROVED BACKFLOW DEVICE IS REQUIRED TO PREVENT CROSS CONNECTION DURING FILLING AND TESTING.
15. CONTRACTOR IS REQUIRED TO FOLLOW ALL SAFETY REQUIREMENTS INCLUDING CONFINED SPACE ENTRY AND FALL PROTECTION REGULATIONS PRIOR TO ENTERING ANY CONFINED SPACE OR EXPOSURE TO ELEVATED STRUCTURE.
16. CONTRACTOR IS REQUIRED TO PROVIDE A COMPETENT PERSON(S) TRAINED TO IDENTIFY EXISTING OR PREVENTABLE HAZARDS RELATED TO TRENCH SAFETY, SOIL CONDITIONS, AND SHORING REQUIREMENTS, IN ACCORDANCE WITH WAC 296--155 PART N. REPRESENTATIVES OF TUA SHALL NOT BE REQUIRED TO PERFORM THE ROLE OF COMPETENT PERSON FOR THIS PROJECT. NO WORKERS SHALL ENTER A TRENCH OR OTHER EXCAVATION FOUR FEET OR MORE IN DEPTH WITHOUT TRENCH SAFETY SYSTEM IN PLACE.
17. MINIMUM OF ONE LANE OF TRAFFIC WITH FLAGGERS SHALL BE PROVIDED AT ALL TIMES, EXCEPT AS NOTED IN THE TRAFFIC CONTROL PLANS.
18. ALL EXCAVATIONS SHALL BE SECURED BY THE CONTRACTOR AT THE END OF EACH WORKING DAY.
19. CONTRACTOR SHALL PROTECT OR RESTORE ALL LOT CORNERS.
20. SYMBOLS ON THE DRAWINGS (BECAUSE OF THEIR SIZE) MAY NOT REPRESENT THE EXACT LOCATION OF EITHER PROPOSED OR EXISTING UTILITIES (EX GATE VALVES & HYDRANTS)
21. ALL FITTINGS SHALL BE RESTRAINED MECHANICAL RESTRAINTS (MEGALUGS OR APPROVED EQUAL), OR LOCKING GASKETS SUITABLE FOR PVC PIPE. CONCRETE THRUST BLOCKING SHALL BE USED ONLY WHEN APPROVED BY TUA. THRUST BLOCKS REQUIRED AT CONNECTIONS TO EXISTING AC MAIN. SEE DETAILS.
22. BOTH WATER SYSTEMS (EX. AND NEW) MUST REMAIN IN SERVICE UNTIL ALL CONNECTIONS AND EXISTING SERVICES ARE CONNECTED TO THE NEW SYSTEM. CONTRACTOR REQUIRED TO COORDINATE WITH TUA REGARDING WATER SHUT DOWNS SINCE SOME SHUT DOWNS WILL TAKE SIGNIFICANT PROPERTIES OFF LINE.
23. SEE ROAD PLANS SHEET 32 FOR TESC REQUIREMENTS, INCLUDING CATCH BASIN INLET PROTECTION.

LEGEND

PROPOSED	EXISTING (EX)	DESCRIPTION
		FLANGE
		MECHANICAL JOINT
		WATER FITTINGS (ADAPTER, TEE, BEND)
	WV	WATER VALVE
	WM	WATER METER
		FIRE HYDRANT
	ICV	IRRIGATION CONTROL VALVE
		SEWER MANHOLE
		SEWER CLEANOUT
		STORM DRAIN MANHOLE
		STORM CATCH BASIN
		STORM CLEANOUT
	P	POWER VAULT
		POWER POLE
		GUY ANCHOR
	P	POWER TRANSFORMER
	T	TELEPHONE VAULT
	T	TELEPHONE JUNCTION BOX
	TJR	TELEPHONE RISER
	TPC	TELEPHONE CABINET
		CABLE TV JUNCTION BOX
	GV	GAS VALVE
		MONITORING WELL
		END OF UTILITY LINE THAT CONTINUES
		STORM CULVERT
	SS	SANITARY SEWER PIPE
	SD	STORM DRAIN PIPE
	P	POWER LINE
		SECTION LINE
	FO	FIBER OPTIC
	TV	CABLE TV LINE
		PROPERTY LINE
		EDGE OF WATER
		CENTER LINE
W	W	WATER PIPE
		BUILDING LINE
	EC	EDGE OF CONCRETE
	EG	EDGE OF GRAVEL
		RIGHT-OF-WAY LINE
		ROCKERY
		DECIDUOUS TREE
		CONIFEROUS TREE

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14432 SE Eastgate Way
Bellevue, WA 98007
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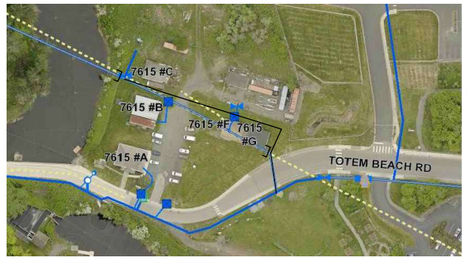
TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

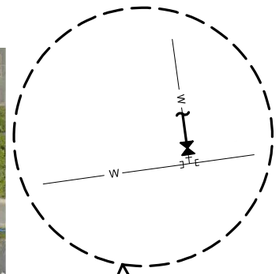
GENERAL NOTES AND LEGEND

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 2 OF 9
2



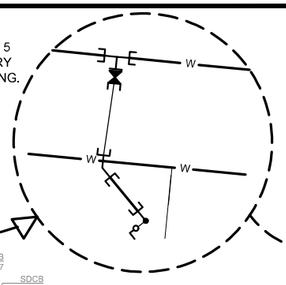
WATER SERVICE TO FISHERIES BLDGS

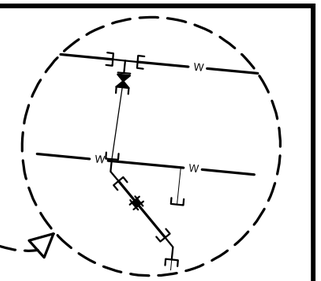
LOCATE EX. 6"x8" TEE; DISCONNECT 6" AC PIPE FROM TEE.
PROVIDE CONNECTION FROM EX 8" DI TO A 2" HDPE SDR 7 WATER SERVICE LINE AND FEED IT THROUGH THE 6" AC ACROSS TOTEM BEACH ROAD (WITH TRACER WIRE).
ON EX. TEE, PROVIDE A 6" BLIND FLANGE W/ 2" THREADED TAP (ALIGN DISCHARGE WITH EX. 6" MAIN TO THE NORTH)
2" BRASS NIPPLE (2")
2" BRASS MULTI-TURN VALVE (THREADED) W/ 2" OP. NUT AND VALVE BOX
2" MIP X CTS COMPRESSION COUPLING W/ SST STIFFENERS
TERMINATE TRACER WIRE IN THE VALVE BOX
SEAL END OF 6" PIPE AROUND 2" W/ SPRAY EXPANDING FOAM. AT NORTH SIDE OF ROAD, OPEN THE AC AND CAP THE PORTION TO BE ABANDONED. EXTEND 2" HDPE SERVICE LINE TO THE TWO EXISTING METERS AND EXISTING TEE, APPROXIMATELY 350 LF. APPROXIMATE ROUTE PER IMAGE AT UPPER LEFT OF SHEET.
(NOT ALL FITTINGS OR METERS NOTED ABOVE SHOWN FOR CLARITY)



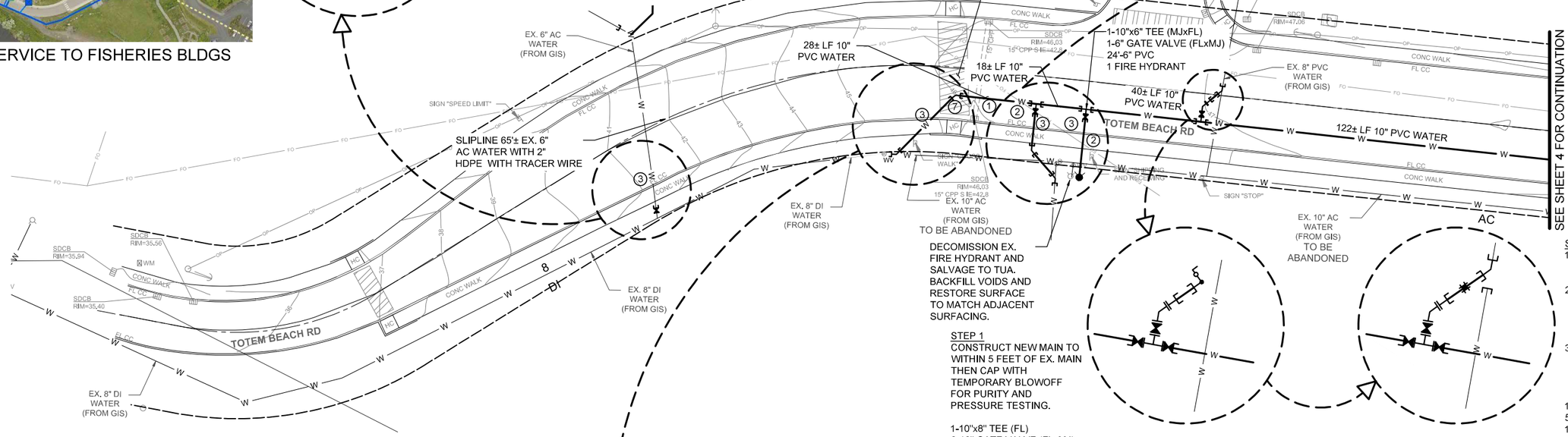
STEP 1
POTHOLE TO LOCATE AND VERIFY EXISTING MAIN SIZE. CONSTRUCT NEW MAIN TO WITHIN 5 FEET OF EX. MAIN THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING.

1-10"x6" TEE (MJxFL)
1-6" GATE VALVE (FLxMJ)
16 LF 6" PVC
1-6" 45° BEND (MJ)
5 LF 6" PVC SPOOL





EX. CROSSWALK TO BE REPLACED TO MATCH EX.



STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST
2. CONTRACTOR TO LOCATE EX. MAIN AND VERIFY SIZE, THEN CUT EX. 6" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN.

1-6" 45° BEND (MJ)
5 LF 6" PVC SPOOL
1-6" COUPLING
1-6" CAP

SEE SHEET 4 FOR CONTINUATION

STEP 1
CONSTRUCT NEW MAIN TO WITHIN 5 FEET OF EX. MAIN THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING.

1-10"x8" TEE (FL)
2-10" GATE VALVE (FLxMJ)
1-8" GATE VALVE (FL)
1-8" 45° BEND (FL)
1-8" ADAPTER (FLxMJ)
5 LF 8" PVC SPOOL

STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST AND 315 FEET NORTH
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 8" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN.

1-8" 45° BEND (MJ)
5 LF 8" PVC SPOOL
1-8" COUPLING
1-8" CAP

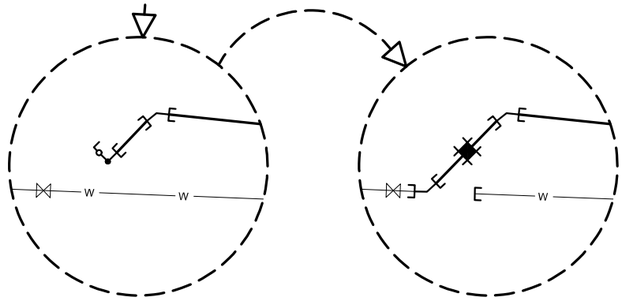
KEY NOTES

1. INSTALL WATER MAIN DEEPER AS NECESSARY AT STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.
2. CONTRACTOR TO POTHOLE EX. FIBER OPTIC LINE TO DETERMINE DEPTH AND SIZE. INSTALL WATER MAIN DEEPER AS NECESSARY TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.
3. REMOVE AND REPLACE EXISTING CURB, GUTTER, AND SIDEWALK PER MODIFIED CEMENT CONCRETE CURB AND SIDEWALK DETAILS ON ROAD DETAILS SHEET 25.
4. REMOVE AND REPLACE EXISTING PARALLEL CURB RAMP PER DETAIL F-40.12-03 ON SHEET 9 OF WATER PLANS, BID SCHEDULE C.
5. REMOVE AND REPLACE EXISTING PERPENDICULAR CURB RAMP PER DETAIL F-40.15-04 SHEET 9 OF WATER PLANS, BID SCHEDULE C.
6. REMOVE AND REPLACE EXISTING DRIVEWAY ENTRANCE PER MODIFIED DRIVEWAY ENTRANCE DETAILS ON ROAD DETAILS SHEET 26.
7. REPLACE EXISTING PAVEMENT MARKINGS IN KIND.

STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX, MAIN AND VALVE AND VERIFY SIZE AND VALVE END (MJ OR FL).

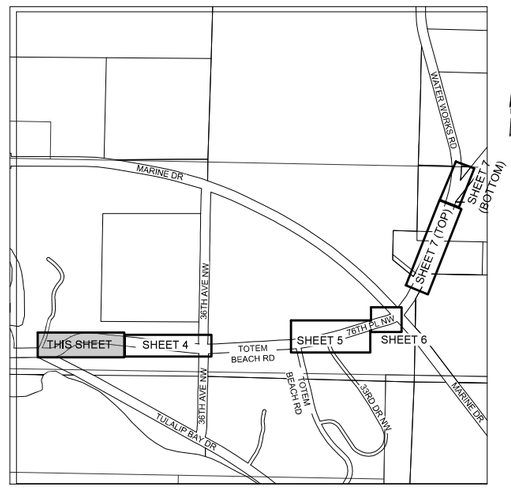
CONSTRUCT NEW 10" MAIN TO WITHIN 5' THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING.

1-10" 45° BEND (MJ)
24 LF 10" PVC SPOOL



STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST.
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 10" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN 5' FROM EX. VALVE.

1-10" COUPLING
1-10" 45° BEND (MJ)
5 LF 10" PVC SPOOL
1-10" CAP



SCALE
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(FEET)
1 INCH = 20 FT.

811

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TWP:	T 30 N
RGE:	R 4 E
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HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER
01/25/22

△ REVIEWED BY: DATE:

NO.	DATE	REVISION	BY	CK

DAVID EVANS AND ASSOCIATES INC.
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Bellevue, WA 98007
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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

BID SCHEDULE C - WATER PLAN

TOTEM BEACH ROAD

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 3 OF 9
3

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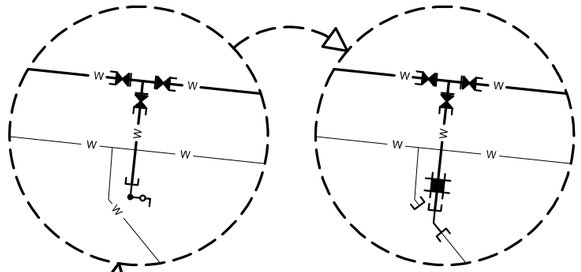
By: Billy Gibbs
By: Weg
File: P:\TLIP\00000001\0400CAD\ECS\SHEETS\EC-WATR-TLIP00000001-W1-4 - East.dwg

STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

CONSTRUCT NEW 8" MAIN TO WITHIN 5' THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING

1-10"x8" TEE (FL)
2-10" GATE VALVE (FLxMJ)
1-8" GATE VALVE (FLxMJ)
32 LF 8" PVC



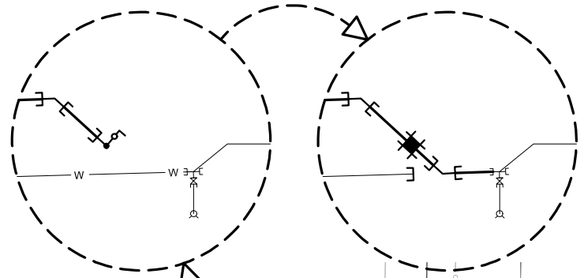
STEP 2
1. CLOSE EX. VALVES TO THE EAST, WEST AND SOUTH
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 8" MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN

1-8" 45° BEND (MJ)
5 LF 8" PVC SPOOL
1-8" COUPLING
1-8" CAP

STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

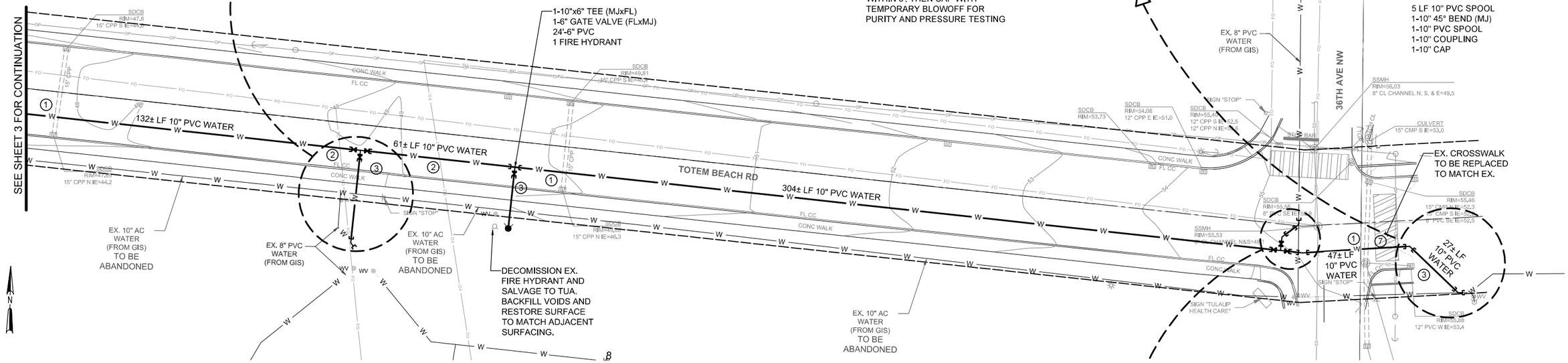
1-10" 45° BEND (MJ)
22 LF 10" PVC SPOOL

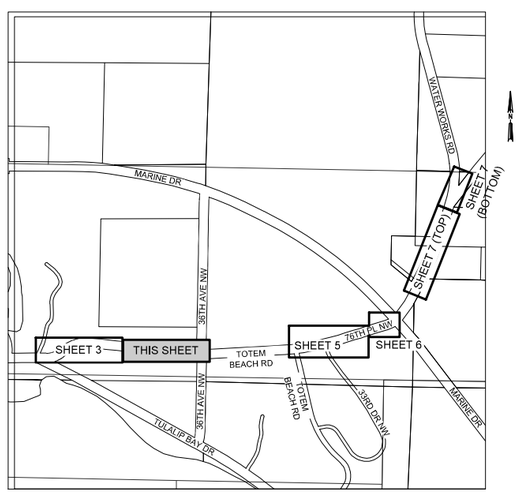
CONSTRUCT NEW 10" MAIN TO WITHIN 5', THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING



STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 10" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN

5 LF 10" PVC SPOOL
1-10" 45° BEND (MJ)
1-10" PVC SPOOL
1-10" COUPLING
1-10" CAP





SHEET LAYOUT KEY
NTS

KEY NOTES

① INSTALL WATER MAIN DEEPER AS NECESSARY AT STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.

② CONTRACTOR TO POTHOLE EX. FIBER OPTIC LINE TO DETERMINE DEPTH AND SIZE. INSTALL WATER MAIN DEEPER AS NECESSARY TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.

③ REMOVE AND REPLACE EXISTING CURB, GUTTER, AND SIDEWALK PER MODIFIED CEMENT CONCRETE CURB AND SIDEWALK DETAILS ON ROAD DETAILS SHEET 25.

④ REMOVE AND REPLACE EXISTING PARALLEL CURB RAMP PER DETAIL F-40.12-03 ON SHEET 9 OF WATER PLANS, BID SCHEDULE C.

⑤ REMOVE AND REPLACE EXISTING PERPENDICULAR CURB RAMP PER DETAIL F-40.15-04 SHEET 9 OF WATER PLANS, BID SCHEDULE C.

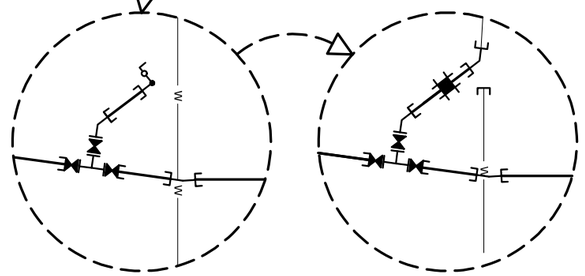
⑥ REMOVE AND REPLACE EXISTING DRIVEWAY ENTRANCE PER MODIFIED DRIVEWAY ENTRANCE DETAILS ON ROAD DETAILS SHEET 26.

⑦ REPLACE EXISTING PAVEMENT MARKINGS IN KIND.

STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

CONSTRUCT NEW 8" MAIN TO WITHIN 5' THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING

1-10"x8" TEE (FL)
2-10" GATE VALVE (FLxMJ)
1-10" 11½" BEND (MJ)
5 LF 10" PVC SPOOL
1-8" GATE VALVE (FL)
1-8" 45° BEND (FLxMJ)
5 LF 8" PVC SPOOL



STEP 2
1. CLOSE EX. VALVE ON NORTH BRANCH OF EX. TEE AND VALVE UNKNOWN LOCATION NORTH OF CONNECTION POINT.
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 8" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN

1-8" 45° BEND (MJ)
5 LF 8" PVC SPOOL
1-8" COUPLING
1-8" CAP

811

SCALE
20 0 10 20 40
(FEET)
1 INCH = 20 FT.

SEC:	SEC. 21 & 22
TWP:	T 30 N
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HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 01/26/22

NO.	DATE	REVISION	BY	CK

REVIEWED BY: DATE:

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

BID SCHEDULE C - WATER PLAN

TOTEM BEACH ROAD

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 4 OF 9
4

By: Billy Gibbs
By: Weg
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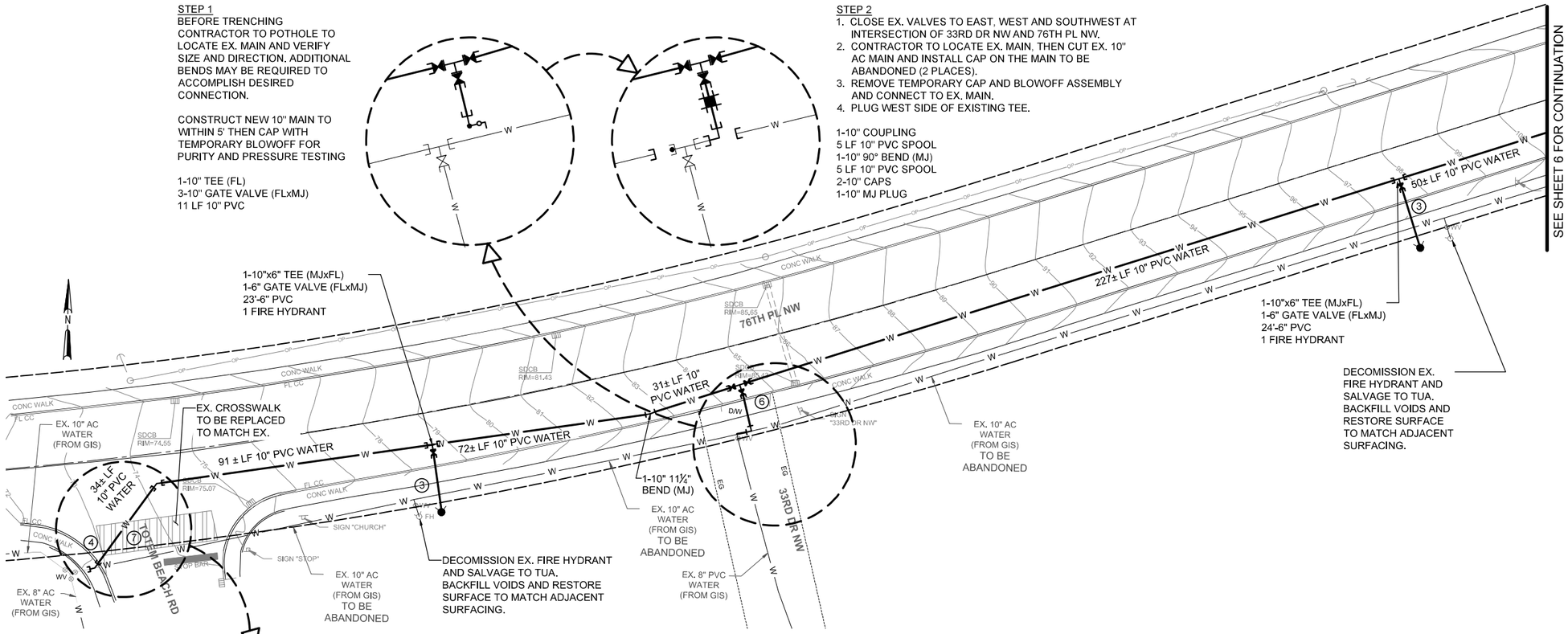
STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

CONSTRUCT NEW 10" MAIN TO WITHIN 5' THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING

1-10" TEE (FL)
3-10" GATE VALVE (FLxMJ)
11 LF 10" PVC

STEP 2
1. CLOSE EX. VALVES TO EAST, WEST AND SOUTHWEST AT INTERSECTION OF 33RD DR NW AND 76TH PL NW.
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 10" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED (2 PLACES).
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN.
4. PLUG WEST SIDE OF EXISTING TEE.

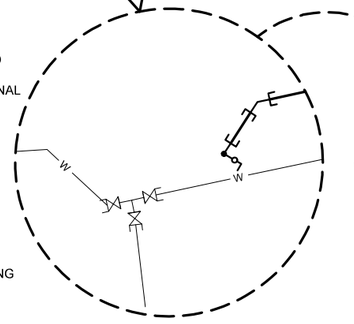
1-10" COUPLING
5 LF 10" PVC SPOOL
1-10" 90° BEND (MJ)
5 LF 10" PVC SPOOL
2-10" CAPS
1-10" MJ PLUG



STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

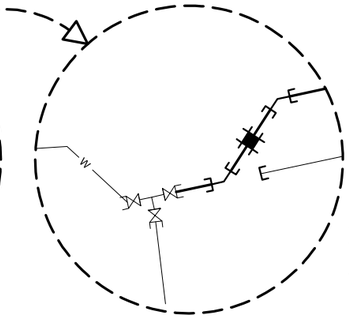
1-10" 45° BEND (MJ)
29 LF10" PVC

CONSTRUCT NEW MAINS TO WITHIN 5' OF CONNECTION POINTS THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING



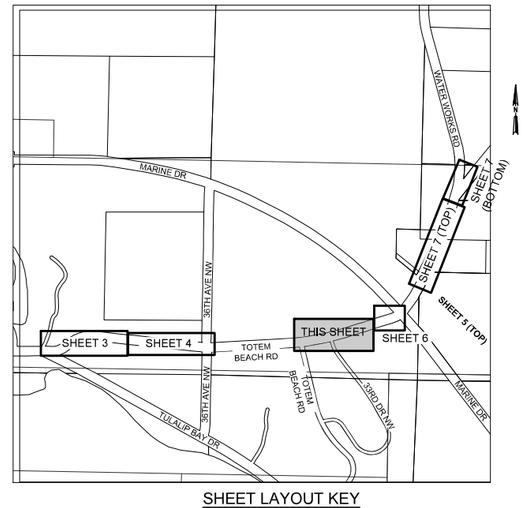
STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST
2. CONTRACTOR TO LOCATE EX. MAIN. THEN CUT EX. 10" AC MAIN AND INSTALL CAP ON THE MAINS TO BE ABANDONED

5 LF 10" PVC SPOOL
1-10" COUPLING
1-10" 45° BEND (MJ)
5 LF 10" PVC SPOOL
1-10" CAP



KEY NOTES

1. INSTALL WATER MAIN DEEPER AS NECESSARY AT STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.
2. CONTRACTOR TO POTHOLE EX. FIBER OPTIC LINE TO DETERMINE DEPTH AND SIZE. INSTALL WATER MAIN DEEPER AS NECESSARY TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.
3. REMOVE AND REPLACE EXISTING CURB, GUTTER, AND SIDEWALK PER MODIFIED CEMENT CONCRETE CURB AND SIDEWALK DETAILS ON ROAD DETAILS SHEET 25.
4. REMOVE AND REPLACE EXISTING PARALLEL CURB RAMP PER DETAIL F-40.12-03 ON SHEET 9 OF WATER PLANS, BID SCHEDULE C.
5. REMOVE AND REPLACE EXISTING PERPENDICULAR CURB RAMP PER DETAIL F-40.15-04 SHEET 9 OF WATER PLANS, BID SCHEDULE C.
6. REMOVE AND REPLACE EXISTING DRIVEWAY ENTRANCE PER MODIFIED DRIVEWAY ENTRANCE DETAILS ON ROAD DETAILS SHEET 26.
7. REPLACE EXISTING PAVEMENT MARKINGS IN KIND.



SHEET LAYOUT KEY
NTS

811

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(FEET)
1 INCH = 20 FT.

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TWP: T 30 N
RGE: R 4 E

DATUM:
HOR: NAD 83 (11)
VERT: NAVD 88

CHECKED BY: MCD
DESIGNED BY: WEG
DRAWN BY: SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER
01/26/22

NO.	DATE	REVIEWED BY: / REVISION	DATE: / BY	CK

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TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

BID SCHEDULE C - WATER PLAN

76TH PL NW

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 5 OF 9
5

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By: Billy Gibbs
By: Weg
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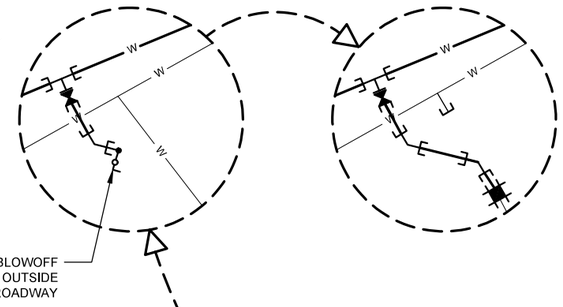
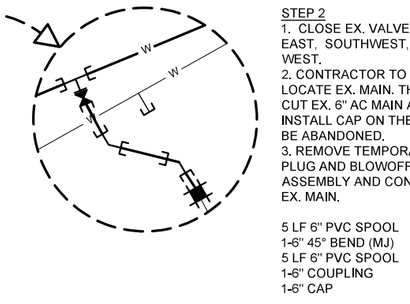
STEP 1
BEFORE TRENCHING POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE. CONSTRUCT 10" MAIN TO WITHIN 5' OF EX. PIPE THEN TERMINATE WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING.

1-10"x6" TEE (MJxFL)
1-6" GATE VALVE (FLxMJ)
10 LF 6" PVC SPOOL
1-6" 45° BEND (MJ)
1-6" TAPPED PLUG (MJ)



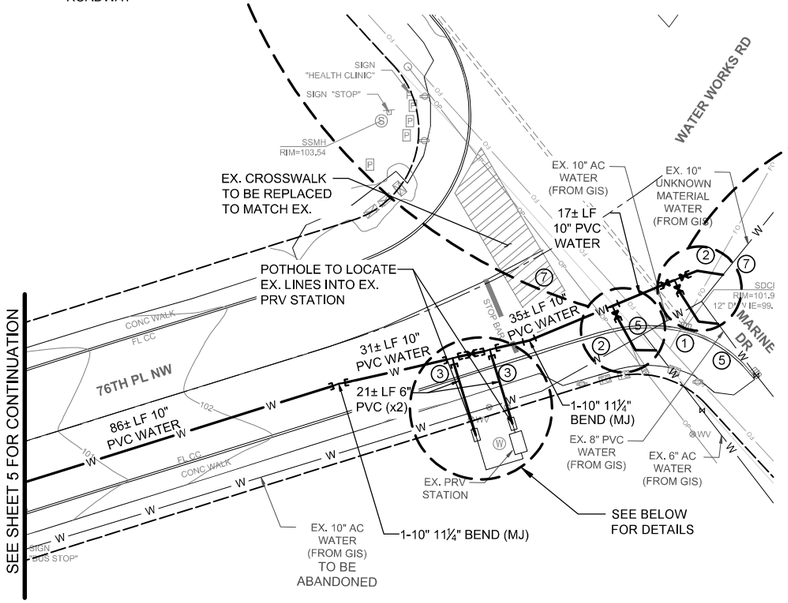
STEP 2
1. CLOSE EX. VALVES TO EAST, SOUTHWEST, AND WEST.
2. CONTRACTOR TO LOCATE EX. MAIN. THEN CUT EX. 6" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY PLUG AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN.

5 LF 6" PVC SPOOL
1-6" 45° BEND (MJ)
5 LF 6" PVC SPOOL
1-6" COUPLING
1-6" CAP



KEY NOTES

1. INSTALL WATER MAIN DEEPER AS NECESSARY AT STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.
2. CONTRACTOR TO POTHOLE EX. FIBER OPTIC LINE TO DETERMINE DEPTH AND SIZE. INSTALL WATER MAIN DEEPER AS NECESSARY TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.
3. REMOVE AND REPLACE EXISTING CURB, GUTTER, AND SIDEWALK PER MODIFIED CEMENT CONCRETE CURB AND SIDEWALK DETAILS ON ROAD DETAILS SHEET 25.
4. REMOVE AND REPLACE EXISTING PARALLEL CURB RAMP PER DETAIL F-40.12-03 ON SHEET 9 OF WATER PLANS, BID SCHEDULE C.
5. REMOVE AND REPLACE EXISTING PERPENDICULAR CURB RAMP PER DETAIL F-40.15-04 SHEET 9 OF WATER PLANS, BID SCHEDULE C.
6. REMOVE AND REPLACE EXISTING DRIVEWAY ENTRANCE PER MODIFIED DRIVEWAY ENTRANCE DETAILS ON ROAD DETAILS SHEET 26.
7. REPLACE EXISTING PAVEMENT MARKINGS IN KIND.

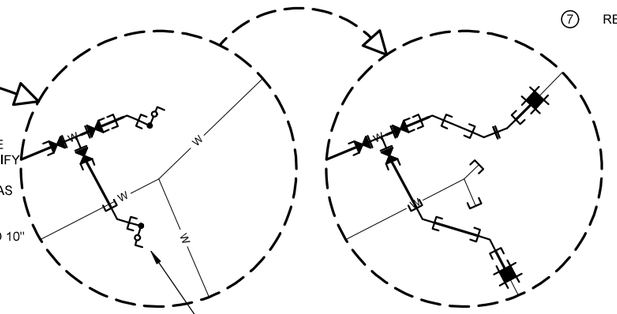


STEP 1
BEFORE TRENCHING POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND ORIENTATION. PROVIDE ADDITIONAL BENDS AS REQUIRED TO ACCOMPLISH DESIRED CONNECTION. CONSTRUCT NEW 8" MAIN AND 10" MAIN TO WITHIN 5' THEN CAP EACH LINE WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING.

1-10"x8" TEE (FL)
2-10" GATE VALVE (FLxMJ)
1-8" GATE VALVE (FLxMJ)

EAST:
3 LF 10" PVC SPOOL
1-10" 45° BEND (MJ)
1-10" TAPPED PLUG

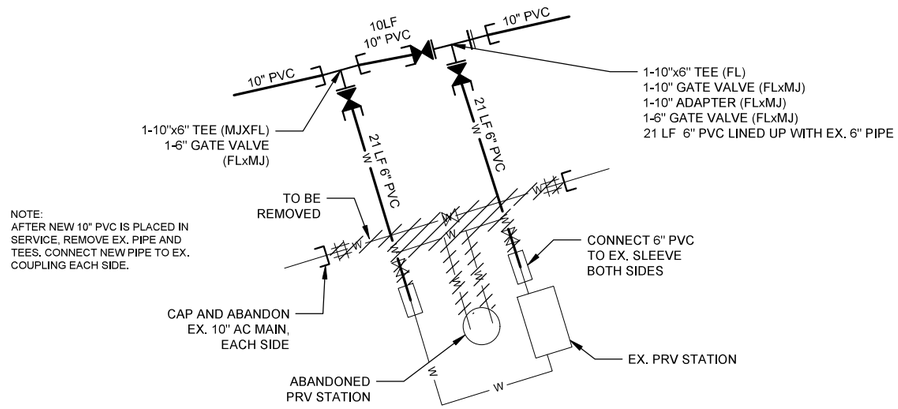
SOUTH:
10 LF 8" PVC
1-8" 45° BEND (MJ)
1-10" TAPPED PLUG



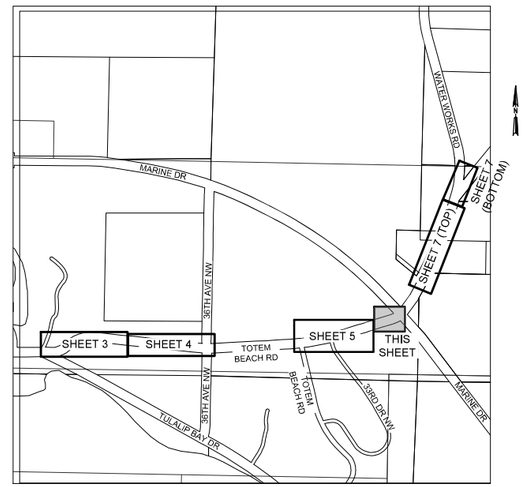
STEP 2
1. CLOSE EX. VALVES TO EAST, SOUTHEAST, AND WEST.
2. LOCATE EX. MAIN. THEN CUT EX. 8" AND 10" AC MAINS AND INSTALL CAPS ON THE MAINS TO BE ABANDONED.
3. REMOVE TEMPORARY PLUGS AND BLOWOFF ASSEMBLIES AND CONNECT TO EX. MAINS.

EAST:
5 LF 10" PVC SPOOL
1-10" 45° BEND (MJxFL)
1-10" 22.5° BEND (FLxMJ)
3 LF 10" PVC SPOOL
1-10" COUPLING
1-10" CAP

SOUTH:
5 LF 8" PVC SPOOL
1-8" 45° BEND (MJ)
3 LF 8" PVC SPOOL
1-8" COUPLING
1-8" CAP



NOTE:
AFTER NEW 10" PVC IS PLACED IN SERVICE, REMOVE EX. PIPE AND TEES. CONNECT NEW PIPE TO EX. COUPLING EACH SIDE.



SHEET LAYOUT KEY
NTS

SCALE
20 0 10 20 40
(FEET)
1 INCH = 20 FT.

811

SEC:	SEC. 21 & 22
TWP:	T 30 N
RGE:	R 4 E
DATUM:	
HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23619 — REGISTERED PROFESSIONAL ENGINEER — 01/26/22

△	REVIEWED BY:		DATE:	
NO.	DATE	REVISION	BY	CK

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA
TULALIP TRIBES OF WASHINGTON
BID SCHEDULE C - WATER PLAN
76TH PL NW & MARINE DR.

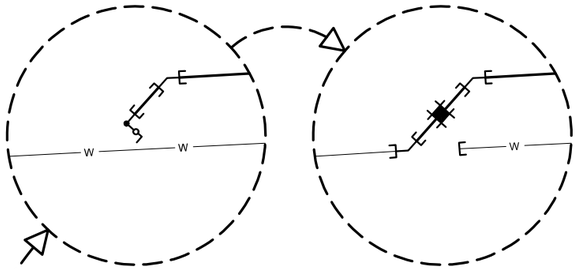
PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 6 OF 9
6

Plot Date: 1/26/2022 2:10 PM By: Billy Gibbs
Save Date: 1/26/2022 1:44 PM By: Weg File: P:\TLIP\00000001\0400CAD\EC\SHEETS\EC-WATR-TLIP00000001-W1-4 - East.dwg

STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

CONSTRUCT NEW 10" MAIN TO WITHIN 5' THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING

1-10" 45° BEND (MJ)
13 LF 10" PVC



STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 10" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN.

1-10" COUPLING
5 LF 10" PVC SPOOL
1-10" 45° BEND (MJ)
1-10" CAP

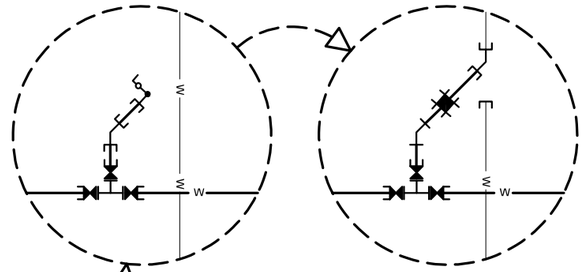
KEY NOTES
① INSTALL WATER MAIN DEEPER AS NECESSARY AT STORM CROSSING TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.

② CONTRACTOR TO POTHOLE EX. FIBER OPTIC LINE TO DETERMINE DEPTH AND SIZE. INSTALL WATER MAIN DEEPER AS NECESSARY TO PROVIDE MINIMUM 6" VERTICAL CLEARANCE WITH ETHAFOAM CUSHION.

STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

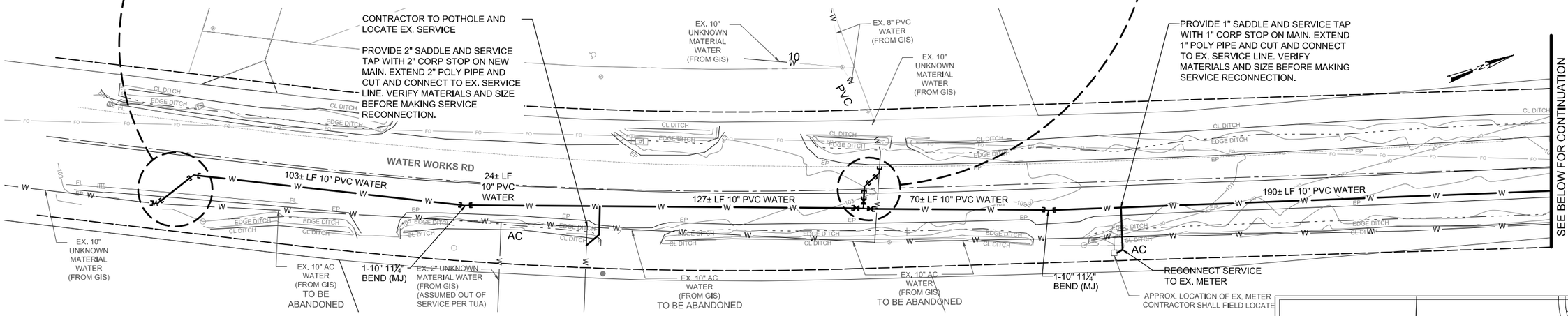
CONSTRUCT NEW 10" MAIN TO WITHIN 5' THEN CAP WITH TEMPORARY BLOWOFF ASSEMBLY FOR PURITY AND PRESSURE TESTING

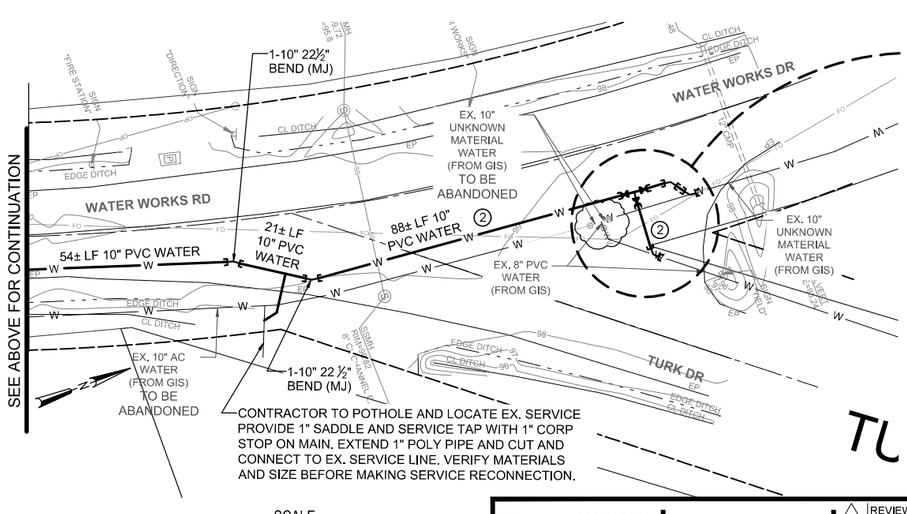
1-10" TEE (FL)
3-10" GATE VALVE (FLxMJ)
2-10" PVC SPOOLS
1-10" 45° BEND (MJ)

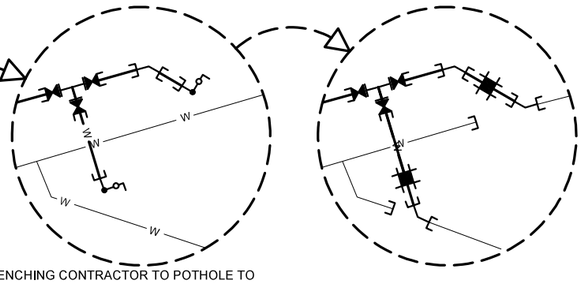


STEP 2
1. CLOSE EX. VALVES TO EAST AND WEST
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 10" AC MAIN AND INSTALL CAP ON THE MAIN TO BE ABANDONED.
3. REMOVE TEMPORARY CAP AND BLOWOFF ASSEMBLY AND CONNECT TO EX. MAIN.

1-10" 45° BEND (MJ)
1-10" PVC SPOOL
1-10" CAP







STEP 1
BEFORE TRENCHING CONTRACTOR TO POTHOLE TO LOCATE EX. MAIN AND VERIFY SIZE AND DIRECTION. ADDITIONAL BENDS MAY BE REQUIRED TO ACCOMPLISH DESIRED CONNECTION.

CONSTRUCT NEW 8" AND 10" MAINS TO WITHIN 5' OF EX. MAINS THEN CAP WITH TEMPORARY BLOWOFF FOR PURITY AND PRESSURE TESTING
1-10"x8" TEE (FL)
2-10" GATE VALVE (FLxMJ)
1-8" GATE VALVE (FLxMJ)
10 LF 10" PVC
1-10" 45° BEND (MJ)
5 LF 10" PVC SPOOL
12 LF 8" PVC

STEP 2
1. CLOSE EX. VALVES TO EAST, WEST AND SOUTH
2. CONTRACTOR TO LOCATE EX. MAIN, THEN CUT EX. 8" AND 10" AC MAIN AND INSTALL CAPS ON THE MAINS TO BE ABANDONED.
3. REMOVE TEMPORARY CAPS AND BLOWOFF ASSEMBLIES AND CONNECT TO EX. MAINS.

1-10" COUPLING
1-10" 45° BEND (MJ)
5 LF 10" PVC SPOOL
1-10" CAP
1-8" COUPLING
1-8" 45° BEND (MJ)
5 LF 8" PVC SPOOL
1-8" CAP

SHEET LAYOUT KEY
NTS

SCALE
20 0 10 20 40
(FEET)
1 INCH = 20 FT.

811

SEC:	SEC. 21 & 22
TWP:	T 30 N
RGE:	R 4 E
DATUM:	
HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL STATE OF WASHINGTON 23619 REGISTERED PROFESSIONAL ENGINEER 01/25/22

NO.	DATE	REVIEWED BY: / DATE: REVISION	BY	CK

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

BID SCHEDULE D - WATER PLAN

WATER WORKS ROAD

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 7 OF 9
7

Plot Date: 1/26/2022 2:11 PM
Save Date: 1/26/2022 1:44 PM
By: Billy Gibbs
By: Weg
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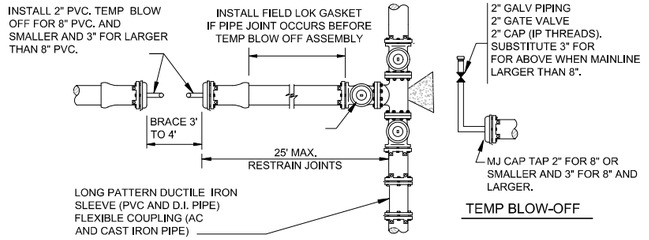
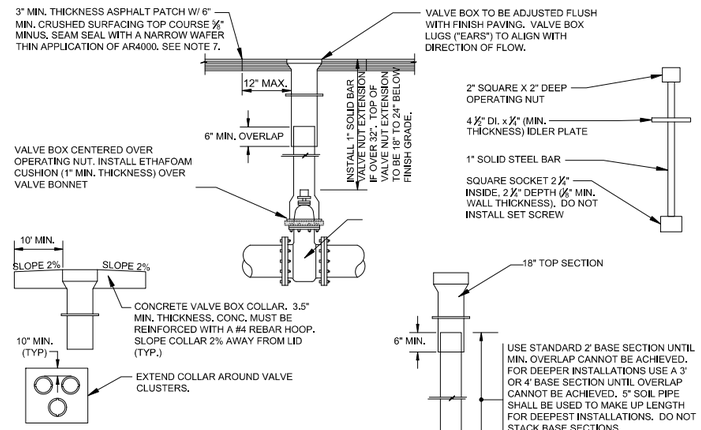


NOTES:

1. TAPPED CONNECTIONS NOT ALLOWED WITHOUT SPECIFIC APPROVAL FROM TUA.
2. NO CONNECTION WILL BE ALLOWED UNTIL ALL PRESSURE TESTING COMPLETED, AND SATISFACTORY BACTERIOLOGICAL TEST RECEIVED. SEE CROSS CONNECTION CONTROL REQUIREMENTS IN SPECIFICATIONS.
3. TAPPING SLEEVE TO BE STAINLESS STEEL FOR PVC AND AC PIPE AND EPOXY COATED STEEL FOR DUCTILE OR CAST IRON PIPE. CLOSEST EDGE OF TAPPING SLEEVE MUST BE 3' (MIN.) FROM COUPLING ON AC PIPE.
4. SEE DETAILS FOR VALVE BOX, THRUST BLOCKING, PIPE AND FITTING RESTRAINT REQUIREMENTS. BACKFILL PER JURISDICTIONAL REQUIREMENTS WHEN IN ASPHALT. ALL OTHER AREAS PER THE STANDARD SPECIFICATIONS.
5. TEMP BLOW OFF'S MUST BE PROTECTED FROM DAMAGE. PLACE IN TRAFFIC BOX IF REQUIRED. WATER OUTAGE ONLY ALLOWED TUESDAY THROUGH THURSDAY 9:00AM TO 3:00PM. (7) WORKING DAYS NOTICE REQUIRED.
6. ALL MJ JOINTS TO BE MEGALUG OR EQUAL, SUITABLE FOR USE WITH PVC PIPE.
7. SIMILAR TEMP BLOW OFF REQUIREMENTS FOR TAPPED CONNECTIONS. LOCATE BLOW OFF OUT OF ASPHALT WHEN POSSIBLE.
8. ALL FITTINGS AND PIPE SHALL BE STERILE SWABBED. CONNECTION SHALL BE INSPECTED FOR VISUAL LEAKAGE UNDER FULL LINE PRESSURE PRIOR TO BACKFILL.

1 CONNECTION REQUIREMENTS

NOT TO SCALE

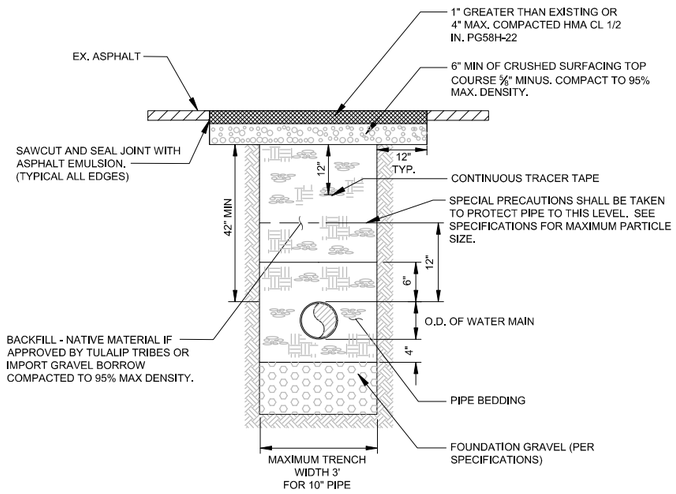


NOTES:

1. VALVE BOX AND LID TO BE 045/046 - SEATTLE/TACOMA TOP & LID.
2. VALVE BOX LIDS TO BE 4" DEEP IN TRAFFIC AREAS AND A MIN. OF 3" IN OTHER LOCATIONS. LOCKING VALVE BOX LIDS REQUIRED IF LIDS WILL NOT STAY PUT DUE TO TRAFFIC.
3. SAWCUT VALVE BOX COMPONENTS. BROKEN OR JAGGED VALVE BOX SECTIONS NOT ACCEPTABLE.
4. OVERLAY ADJUSTMENT RINGS NOT ALLOWED, UNLESS APPROVED BY TUA.
5. VALVE BOX COLLAR REQUIRED IF VALVE BOX OUT OF PAVING. COLLARS TO BE FLUSH WITH FINISH SURFACE. SLOPE COLLARS AWAY FROM LID @ 2% (TYP.)
6. VALVE BOX LIDS TO BE PAINTED (2) COATS SAFETY YELLOW PAINT.
7. VALVE BOXES SHALL BE ADJUSTED AFTER PAVING AND PATCHED AS SHOWN ABOVE. VALVES CONNECTED TO THE EXISTING SYSTEM SHALL BE MADE ACCESSIBLE AT ALL TIMES.

2 VALVE BOX INSTALLATION

NOT TO SCALE



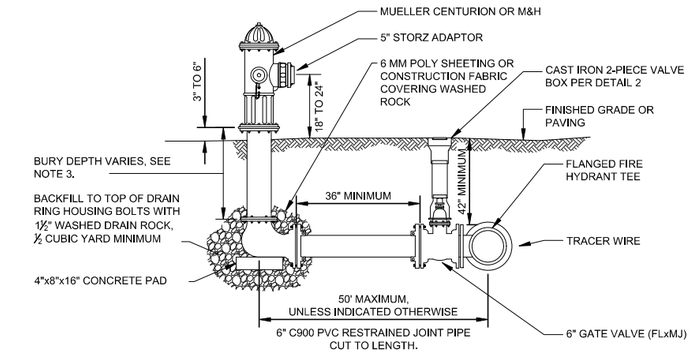
TRENCH AND RESTORATION SECTION

NOTES:

1. PIPE BEDDING FOR PVC PIPE SHALL BE ⅝" CRUSHED SURFACING.
2. PUMPING SOILS OR SOILS THAT CANNOT BE COMPACTED SHALL BE REMOVED FROM THE TRENCH BACKFILL IMMEDIATELY.
3. BACKFILL MATERIAL PLACED IN 6" LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY. BEDDING MATERIAL PLACED IN 4" LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY.

3 TYPICAL TRENCH AND RESTORATION SECTION

NOT TO SCALE

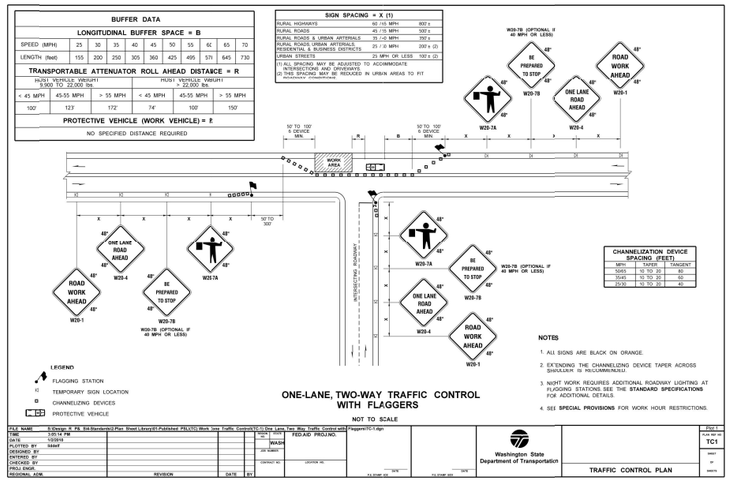


NOTES:

1. ANY HYDRANT SETBACK LONGER THAN ONE FULL LENGTH OF PIPE THAT REQUIRES A BELL AND SPIGOT WILL NEED A FIELD LOK GASKET, AND MAY REQUIRE A THRUST BLOCK AT THE DIRECTION OF THE INSPECTOR.
2. MAINTAIN MINIMUM 3' RADIUS UNOBSTRUCTED WORKING AREA AROUND HYDRANT INCLUDING FUTURE IMPROVEMENTS.
3. HYDRANT BURY DEPTH SHALL BE DETERMINED ON SITE BEFORE HYDRANT ORDER AND DELIVERY.

4 FIRE HYDRANT

NOT TO SCALE



ONE-LANE, TWO-WAY TRAFFIC CONTROL WITH FLAGGERS

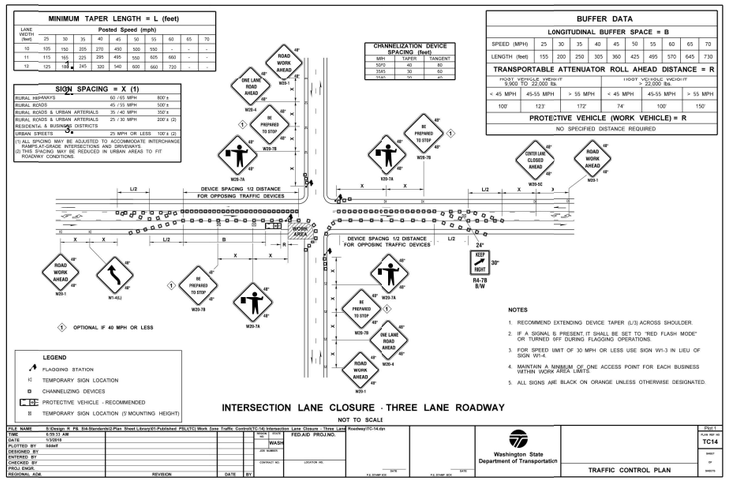
NOT TO SCALE

FILE NAME	S:\Design # PS 8\4-Standards\2 Plan Sheet Library\01-Published PSLTD\ Work Area Traffic Controls\TC1b One Lane, Two Way Traffic Control with Flaggers\TC1.dgn						Plot #
TIME	1:09:14 PM						TC1
DATE	1/25/2022						
PLOTTED BY	Isaac						
DESIGNED BY							
ENTERED BY							
CHECKED BY							
PROJ ENGR.							
REGIONAL ADM.	REVISION	DATE	BY	FED.AID PROJ.NO.			

Washington State Department of Transportation

TRAFFIC CONTROL PLAN

TOTEM BEACH DR. 30 MPH
76TH DR NW 30 MPH



INTERSECTION LANE CLOSURE - THREE LANE ROADWAY

NOT TO SCALE

FILE NAME	S:\Design # PS 8\4-Standards\2 Plan Sheet Library\01-Published PSLTD\ Work Area Traffic Controls\TC14b Intersection Lane Closure - Three Lane Roadway\TC14.dgn						Plot #
TIME	1:09:14 PM						TC14
DATE	1/25/2022						
PLOTTED BY	Isaac						
DESIGNED BY							
ENTERED BY							
CHECKED BY							
PROJ ENGR.							
REGIONAL ADM.	REVISION	DATE	BY	FED.AID PROJ.NO.			

Washington State Department of Transportation

TRAFFIC CONTROL PLAN

MARINE DR. 45 MPH

811

SEC:	SEC. 21 & 22
TWP:	T 30 N
RGE:	R 4 E
DATUM:	
HOR.:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL — STATE OF WASHINGTON — 23819 — REGISTERED PROFESSIONAL ENGINEER — 01/26/22

NO.	DATE	REVISION	BY	CK

△ REVIEWED BY: DATE:

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

TRAFFIC CONTROL PLANS AND DETAILS

PROJECT NO. TLIP00000001

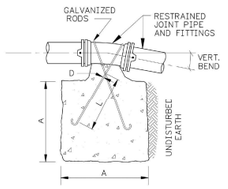
FILE NO. -

SHEET NO. 8 OF 9

8

By: Billy Gibbs
By: Weg
File: P:\TTLIP\00000001\04000CAD\ECS\SHEETS\ECS-WATR-TLIP00000001-01-2 - East.dwg
Plot Date: 1/25/2022 3:52 PM
Save Date: 1/25/2022 3:34 PM

VERTICAL BLOCKING FOR 11 1/4"-22 1/2"-30° BENDS						
PIPE SIZE	V B	CU FT	A	D	L	
4"	11 1/4"	8	2.0'	3/4"	1.5'	
	22 1/2"	11	2.2'		2.0'	
	30°	17	2.6'			
6"	11 1/4"	11	2.2'	3/4"	2.0'	
	22 1/2"	25	2.9'			
	30°	41	3.5'			
8"	11 1/4"	16	2.5'	3/4"	2.0'	
	22 1/2"	47	3.6'			
	30°	70	4.1'	3/4"	2.5'	
12"	11 1/4"	32	3.2'	3/4"	2.0'	
	22 1/2"	88	4.5'	7/8"	3.0'	
	30°	132	5.1'			

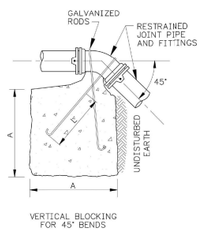


VERTICAL BLOCKING FOR 11 1/4", 22 1/2", & 30° BENDS

VERTICAL BLOCKING FOR 45° BENDS					
4"	45°	30	3.1'	3/4"	2.0'
6"		68	4.1'		
8"		123	5.0'		
12"		232	6.1'	3/4"	2.5'

NOTES:

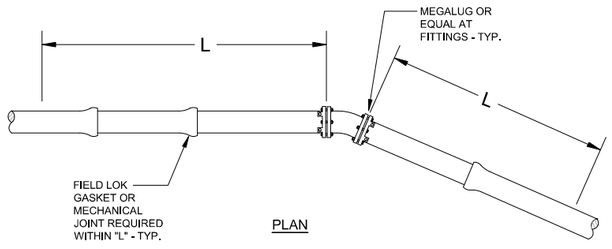
1. CONCRETE BLOCKING BASED ON 200 PSI PRESSURE AND 2500 PSI CONCRETE.



VERTICAL BLOCKING FOR 45° BENDS

8 VERTICAL BEND RESTRAINT

NOT TO SCALE



PLAN

HORIZONTAL BEND RESTRAINED LENGTH (L) "L" LENGTH REQUIRED EACH LEG PAST FITTING (FT)					
PIPE SIZE	TEE OR PLUG	90°	45°	22.5°	11.25°
6"	79	38	16	8	4
8"	103	50	21	10	5
10"	124	59	25	12	6
12"	113	54	23	11	6
16"	145	68	29	14	7

6 HORIZONTAL BEND RESTRAINT

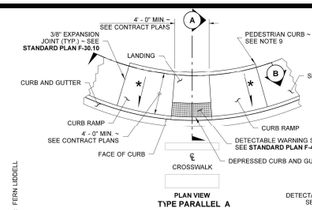
NOT TO SCALE

NOTES:

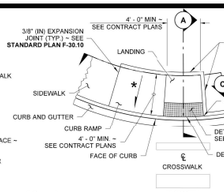
1. RESTRAINED LENGTH SHALL BE ADJUSTED IF CONDITIONS DIFFER FROM ASSUMPTIONS.
2. IF RESTRAINED LENGTH SHOWN IS NOT ACHIEVABLE, THRUST BLOCK SHALL ALSO BE USED. SEE DETAIL 7.
3. RESTRAINED LENGTHS CAN BE ADJUSTED WITH SITE SPECIFIC SOILS INFORMATION, ENGINEERED DESIGN AND TUA APPROVAL.
4. MULTIPLE FITTINGS IN MULTIPLE PLANES SHALL BE DESIGNED AND STAMPED ON INDIVIDUAL BASIS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.

ASSUMPTIONS

1. TEST PRESSURE 200 PSI.
2. LAYING CONDITION 3.
3. SAND-SILT SOIL DESIGNATION.
4. COVER ON 6"-10" DIA. AT 3 FEET; COVER ON 12"-16" AT 4 FEET.
5. SAFETY FACTOR 1.5
6. VALUES DEVELOPED WITH DIPRA THRUST RESTRAINT CALCULATOR.



PLAN VIEW
TYPE PARALLEL A

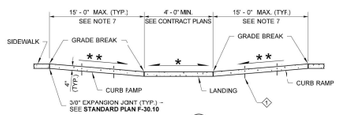


PLAN VIEW
TYPE PARALLEL B

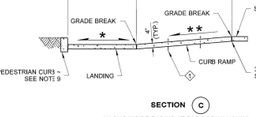
DRAWN BY: FERN LEDELL

③ CONTRACTION JOINT (TYP.) ~ SEE STANDARD PLAN F-30.1 FOR CURB RAMP LENGTHS GREATER THAN 8' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC.

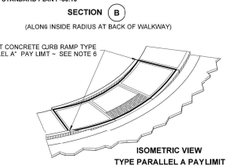
SECTION (A)



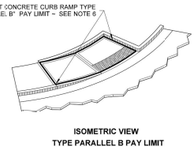
SECTION (B)
(ALONG INSIDE RADIUS AT BACK OF WALKWAY)



SECTION (C)
(ALONG INSIDE RADIUS AT BACK OF WALKWAY)



ISOMETRIC VIEW
TYPE PARALLEL A PAYLIMIT



ISOMETRIC VIEW
TYPE PARALLEL B PAY LIMIT

NOTES

1. At marked crosswalks, the connection between the landing and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the Landing connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type __" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not requirec to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not include abutting landing(s) in the15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14.**
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will be no material to retain.

LEGEND

★ SLOPE IN EITHER DIRECTION
★★ 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
★★ 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) ~ SEE NOTE 7

R. SCOTT ZELLER
STATE OF WASHINGTON
22666
REGISTERED
PROFESSIONAL ENGINEER

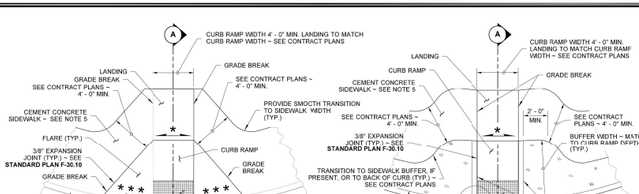
Zeller, Scott
Jun 24 2016 7:19 AM

PARALLEL CURB RAMP

STANDARD PLAN F-40.12-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jun 29 2016 2:27 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation

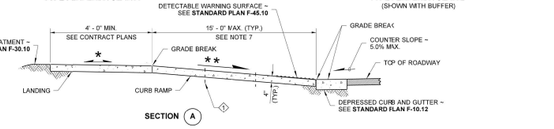


PLAN VIEW
TYPE PERPENDICULAR A

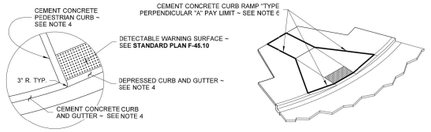
PLAN VIEW
TYPE PERPENDICULAR B
(SHOWN WITH BUFFER)

DRAWN BY: FERN JODELL

③ CONTRACTION JOINT (TYP.) ~ SEE STANDARD PLAN F-30.10 FOR CURB RAMP LENGTHS GREATER THAN 8' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC.

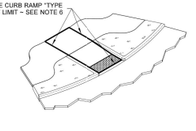


SECTION (A)



CURB RADIUS DETAIL (B)

ISOMETRIC VIEW
TYPE PERPENDICULAR A PAY LIMIT



ISOMETRIC VIEW
TYPE PERPENDICULAR B PAY LIMIT

NOTES

1. At marked crosswalks, the connecton between the curb ramp and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in front of the Curb Ramp where it connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type __" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length, the running slope of the Curb Ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the landing over a horizontal distance of 15 feet. Do not include the abutting landing in the 15-foot max. measurement.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14.**
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.

LEGEND

★ SLOPE IN EITHER DIRECTION
★★ 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
★★★ 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.)
★★★ 9.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (10% MAX.)

R. SCOTT ZELLER
STATE OF WASHINGTON
22666
REGISTERED
PROFESSIONAL ENGINEER

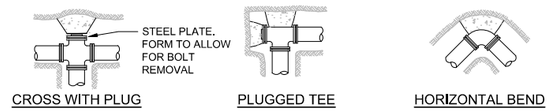
Digitally signed by R. Scott Zeller
Date: 2020.09.22 12:23:53 -07'00'

PERPENDICULAR CURB RAMP

STANDARD PLAN F-40.15-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.25 14:44:37 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation



THRUST BLOCK TABLE					
PIPE SIZE	TEE OR END PLUG	90°	45°	22 ½°	11 ¼°
4" OR 6"	3	4	2	2	2
8"	6	7	4	2	2
12"	12	16	9	5	3
16"	21	29	16	8	4

MINIMUM BEARING AREA AGAINST UNDISTURBED EARTH (SQUARE FEET)

NOTES:

1. BEARING AREA OF CONC. THRUST BLOCK BASED ON 200 PSI PRESSURE AND SOIL BEARING LOAD OF 2000 POUNDS PER SQUARE FOOT.
2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPES, PRESSURES AND SOIL COMPACTION.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF ½ SQUARE FOOT BEARING AGAINST THE FITTING. SIDES SHALL BE FORMED WITH PLYWOOD OR EQUIVALENT.
4. THRUST BLOCK SHALL BEAR AGAINST FITTING ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT DISMANTLING OF JOINTS.
5. CONCRETE TO BE 3000 PSI MINIMUM. PRE-MIX CONCRETE IS PREFERRED. IF CONCRETE IS HAND MIXED THE PROPORTIONS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. COMPRESSIVE TESTS OF "HAND MIXED" CONCRETE MAY BE REQUIRED. PRE-INSPECTION OF BLOCKING AREA REQUIRED PRIOR TO PLACEMENT OF CONCRETE.
6. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
7. THRUST BLOCK USED ONLY WHEN SHOWN ON PLANS OR WHEN CONNECTING TO EXISTING PIPE WHERE EXISTING JOINT RESTRAINT IS UNKNOWN.

7 THRUST BLOCKING DETAIL

NOT TO SCALE

811

SEC:	SEC. 21 & 22
TWP:	T 30 N
RGE:	R 4 E
DATUM:	
HOR:	NAD 83 (11)
VERT:	NAVD 88
CHECKED BY:	MCD
DESIGNED BY:	WEG
DRAWN BY:	SYS

MARY C. DAHL
STATE OF WASHINGTON
23619
REGISTERED
PROFESSIONAL ENGINEER
01/26/22

NO.	DATE	REVISION	BY	CK
△		REVIEWED BY: DATE:		

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way
Bellevue, WA 98007
Phone: 425.519.6500

TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE I
EAST COMMERCIAL AREA

TULALIP TRIBES OF WASHINGTON

DETAILS

PROJECT NO. TLIP00000001
FILE NO. -
SHEET NO. 9 OF 9
9

Plot Date: 1/25/2022 3:52 PM
Save Date: 1/25/2022 3:34 PM
By: Billy Gibbs
By: Weg
File: P:\TT\TLIP00000001\04000-ADJECS\SHEETS\EC-WATR-TLIP00000001-01-2 - East .dwg

Appendix C

Right-of-Way Permit

THE TULALIP TRIBES

Right of Way Permit

PERMIT NO.	***ROW 2022-002***
Applicant:	Tulalip Utilities c/o Mary Dahl, David Evans and Associates
Mailing Address:	14432 Eastgate Way Suite 400, Bellevue WA 98007
Property Owner:	Tulalip Tribes
Site Address:	Totem Beach Rd, 76th Pl NW, and Waterworks Rd, Tulalip, WA 98271
Legal Description:	Section 22, Township 30, Range 4
Zoning:	Tulalip Bay Planning Area
Proposal:	Replace Existing Water Main Line – (Decommission & leave existing line in place) Phase 1 Schedule C&D
Fee:	$Waived
Decision:	**APPROVED WITH CONDITIONS**

CONDITIONS:

1. This grading permit is conditionally approved for the replacement of the main water line on Totem Beach Rd, 76th Pl NW, and Waterworks Rd consistent with the approved plans on file with the Tulalip Planning Department.

2. Prior to construction, all utilities shall be located and properly marked on-site. Actual depths and locations of utilities may vary.

3. To avoid accidental damage to Tulalip Utilities please call for on-site inspections 48 hours in advance of work occurring in areas where potential conflicts and utility crossings exist. Tulalip Utilities (360) 716-4840

4. Prior to construction, a detailed construction schedule with dates, times, and locations shall be provided to Sam Davis, Tulalip Roads Department phone: (360) 716-4711 email: sdavis@tulaliptribes-nsn.gov.

5. Neighboring residents, businesses, and Tribal Departments shall be informed in writing, at least 48 hours in advance, of any construction activity. All activities shall occur only between the hours of 9:00am and 3:00pm on any day except legal holidays and Sundays

6. All contractors shall provide accurate as-built plans and files with locations of all new utilities to the Tulalip GIS Department before the contract is closed out. Contact Chris Wright. Tulalip GIS Manager. Phone: 360-716-5162. Email: Christopherwright@tulaliptribes-nsn.gov

7. A set of approved plans shall be kept at the job site at all times during construction.

8. Staging areas with stored equipment and/or stored material shall be fenced and located in a safe place away from wetland and stream buffer areas to avoid potential spills or leaks from hazardous material into nearby wetlands or waterways. Staging

areas shall avoid existing utilities and must not be placed within the setback area of neighboring properties or block any public roads unless prior approval is obtained.

9. When road cuts are unavoidable, the applicant and/or contractor shall utilize the means and methods below to ensure smooth road conditions after the project is complete.
    a. Cut a ledge to countersink metal grate
    b. Remove excess asphalt from Temporary Patch
    c. Ensure 95% compaction during final patch
10. Refer to the attached **Open Cut Crossing Detail** for further information. Once the final road patch is installed, contact Sam Davis, Tulalip Roads Department, to schedule a final inspection phone: (360) 716-4711 email: sdavis@tulaliptribes-nsn.gov.

Cultural Resource Protection:

11. The Tribal Cultural Preservation Officer, Richard Young, must be notified at least 48 hours in advance of any ground disturbing activity. Please send an email message and follow up with a phone call to ensure notification happens within this timeframe. Email: ryoung@tulaliptribes-nsn.gov Cell Phone: (425) 239-0182
    a. In the event any archaeological resources, human remains or funerary objects are discovered during trenching, grading and any other ground disturbing activities, all work must immediately cease.
    b. If human remains are encountered, the Tulalip Police Department must be notified immediately. If it is determined that the remains are not forensic and that they are Native American the property owners will enter into a consultation agreement with the Tribal Cultural Preservation Officer regarding the final disposition of the remains.
    c. In the event cultural materials are found such as shell middens, fire cracked rock associated with isolated tools such as scrapers, choppers, cores, flakes, and projectile points, all work must immediately cease.

Natural Resources Protection:

12. In project areas adjacent to wetlands/streams/shorelines where dewatering is required a dewatering plan must be submitted to the Planning Department for review and approval once week prior to dewatering to ensure sediment is not discharged to tribal waters. Contact Ben Lubbers: phone 360-716-4208 email blubbers@tulaliptribes-nsn.gov

13. During construction, the following appropriate best management practices (BMPs) shall be applied:
    a. Clearing limits will be marked on site plan as well as on site. The clearing or grading activity shall not exceed these limits.
    b. Slopes shall be protected to prevent erosion. Best Management Practices (BMPs) to achieve this performance standard could include erosion control blankets, matting or plastic that is staked/tacked and weighted down.
    c. During rain events, any stormwater that leaves the site shall be free of mud and debris, using appropriate best management practices. These BMPs could include silt fences, temporary infiltration pond, or other best management practices.

d. During dry weather, dust shall be reduced by watering down the site.
e. Paved streets shall be kept clean from dirt and mud. BMPs to achieve this performance standard could include a construction entrance, wheel wash or street sweeping. Any street drains on or adjacent to the site shall be protected with filter fabric and straw wattles.
f. Any soil/sand piles that are not being used for 24-48 hours shall be covered with plastic.
g. Any potentially hazardous materials, such as gasoline, oil, etc., shall be removed from the site at the end of the day or stored in a covered area with spill containment measures and equipment.
h. All bare soil areas will be seeded or stabilized such that no erosion or sedimentation shall occur as a result of final site conditions.

14. There shall be unlimited access to the site for the Tulalip Tribes Natural Resources Department and the Planning Department for the purpose of monitoring permit conditions on site.

15. This project shall be consistent with Tulalip Tribal Employment Rights Ordinance (TERO): Contact the TERO Department at (360) 716-4746 or terocompliance@tulaliptribes-nsn.gov.

16. All contractors and sub-contractors shall have a current Tulalip Business License in order to perform work within the Tulalip Indian Reservation. Please contact Tax & Licensing at (360) 716-4204.

17. The Tulalip Planning Department shall first approve any modifications to the plans and conditions set forth in this permit. Please contact Ben Lubbers, Associate Planner II, at (360) 716-4208, upon final project completion to ensure compliance with the conditions stated in this approved permit.

18. THIS PERMIT IS SUBJECT TO TITLE #7 LAND USE AND ALL ITS PROVISIONS.

Important Telephone Numbers

Tulalip Utilities Department	(360) 716-4840
Tulalip Planning Department	(360) 716-4214
Tulalip Business License	(360) 716-4211
TERO	(360) 716-4751
Tribal Cultural Preservation Officer	(425) 239-0182
Tulalip Transportation Manager	(360) 716-5024

Permit ROW 2022-002 is hereby APPROVED:

Gus Taylor, Public Works
Executive Director

2-21-22
Date

Appendix D

Davis-Bacon Wages

"General Decision Number: WA20220075 02/25/2022

Superseded General Decision Number: WA20210075

State: Washington

Construction Type: Heavy
including water and sewer line construction

County: Snohomish County in Washington.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at https://www.dol.gov/agencies/whd/government-contracts.

Modification Number	Publication Date
0	01/07/2022

1	02/18/2022
2	02/25/2022

ASBE0007-001 06/01/2021

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Pipe and Duct Insulation)	$ 61.87	17.96

CARP0030-014 06/01/2020

	Rates	Fringes
CARPENTER (Including Formwork)	$ 46.92	18.02
MILLWRIGHT	$ 48.42	18.02
PILEDRIVERMAN	$ 47.17	18.02

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

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

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

Zone Pay:

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

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

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

Zone Pay:

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

ELEC0077-001 02/01/2021

	Rates	Fringes
Line Construction:		
LINEMEN	$ 55.43	21.06+1.5%

ELEC0191-013 06/01/2020

	Rates	Fringes
ELECTRICIAN		

DOUGLAS, CHELAN, and
OKANOGAN Counties.....$ 46.15 26.10
ISLAND, SAN JUAN, SKAGIT,
SNOHOMISH and WHATCOM
Counties.....$ 47.95 26.16

ENGI0302-029 06/01/2021

	Rates	Fringes
Power equipment operators:		
Group 1A	$ 51.91	23.82
Group 1AA	$ 52.66	23.82
Group 1AAA	$ 53.42	23.82
Group 1	$ 51.15	23.82
Group 2	$ 50.50	23.82
Group 3	$ 49.92	23.82
Group 4	$ 46.73	23.82

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) - $1.00
Zone 3 (Over 45 radius miles) - $1.30

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

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

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

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom (including jib with attachments);Tower crane over 175 ft in height, base to boom; Excavator/Trackhoe: Over 90 metric tons

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom (including jib with attachments);Crane-overhead, bridge type, 100 tons and over; Tower crane up to 175 ft in height base to boom; excavator/Trackhoe: over 50 metric tons to 90 metric tons;

GROUP 1 - Cranes 45 tons thru 99 tons, under 150 ft of boom (including jib with attachments);Crane-overhead, bridge type, 45 tons thru 99 tons; Derricks on building work; Excavator/Trackhoe: over 30 metric tons to 50 metric tons; Dozer D-10; Screedman; Scrapers: 45 yards and over; Grader/Blade; Paver

GROUP 2 - Cranes, 20 tons thru 44 tons with attachments;Crane-overhead, bridge type-20 tons through 44 tons; Drilling machine; Excavator/Trackhoe: 15 to 30 metric tons; Horizontal/directional drill operator; Scraper: under 45 tons; Mechanic; Piledriver; Boring Machine

GROUP 3 - Cranes-thru 19 tons with attachments;A-frame crane over 10 tons; Dozers-D-9 and under; Motor patrol grader-nonfinishing; Roller-Plant Mix; Excavator/Trackhoe: under 15 metric tons; Service Oiler; Conveyors; Boom Truck over 10 tons: Forklift- 3000 lbs and over

GROUP 4 - Cranes-A frame-10 tons and under; Roller-other than plant mix; Grade Checker; Drill Assistant; Boom Truck 10 tons and under; Forklift under 3000 lbs

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IRON0086-010 07/01/2020

	Rates	Fringes
IRONWORKER (Reinforcing, Structural and Ornamental)	$ 43.95	31.00

LABO0292-007 06/01/2021

	Rates	Fringes
Laborers:		
GROUP 2	$ 32.96	13.19
GROUP 3	$ 41.29	13.19
GROUP 4	$ 42.29	13.19
GROUP 5	$ 42.98	13.19

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
ZONE 2 - $1.00
ZONE 3 - $1.30

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

ZONE 1 - Projects within 25 radius miles of the respective city hall
ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
ZONE 3 - More than 45 radius miles from the respective city hall

LABORERS CLASSIFICATIONS

GROUP 2: Flagman

GROUP 3: Form Stripping; Sign Erector/Installer

GROUP 4: Pipe Layer; Handheld Drill; Jackhammer

GROUP 5: Mason Tender-Brick; Mason Tender-Cement/Concrete; Grade Checker; High Scaler

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PAIN0005-031 09/14/2020

	Rates	Fringes
PAINTER (Including Brush, Roller, Spray and Prep Work)	$ 33.15	11.98

PLUM0026-001 01/01/2022

	Rates	Fringes
Plumbers and Pipefitters	$ 52.72	27.25

---

* TEAM0174-006 06/01/2019

	Rates	Fringes
Truck drivers:		
ZONE A:		

GROUP 1:.....$ 40.38 20.46
GROUP 2:.....$ 39.54 20.46

ZONE B (25-45 miles from center of listed cities*): Add $.70 per hour to Zone A rates.
ZONE C (over 45 miles from centr of listed cities*): Add $1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Water Truck-3,000 gallons and over; Semi-Trailer Truck

GROUP 2 - Water Truck- less than 3,000 gallons

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:
LEVEL C: +$.25 per hour - This level uses an air purifying respirator or additional protective clothing.
LEVEL B: +$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical ""splash suit.""
LEVEL A: +$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

---

* SUWA2009-066 08/07/2009

	Rates	Fringes
LABORER: Common or General	$ 23.05	5.44
LABORER: Landscape & Irrigation	$ 11.44 **	1.80
OPERATOR: Asphalt Plant	$ 34.14	0.68
OPERATOR: Backhoe	$ 26.18	7.20
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 10.63 **	0.00
OPERATOR: Broom/Sweeper	$ 30.39	3.77
OPERATOR: Loader	$ 27.12	7.38
OPERATOR: Power Shovel	$ 25.12	7.83
TRUCK DRIVER, Includes Dump Truck	$ 24.10	7.33
TRUCK DRIVER: Flatbed Truck	$ 22.74	6.29

TRUCK DRIVER: Lowboy Truck.....$ 22.89   5.72

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

==========

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($15.00) or 13658 ($11.25). Please see the Note at the top of the wage determination for more information.

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

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

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

With regard to any other matter not yet ripe for the formal

process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

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

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

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

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

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

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

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END OF GENERAL DECISIO"