The Tulalip Tribes of Washington



BATTLE CREEK ROADS AND MISSION HILL ROAD

Tulalip Tribes Project Nos. 2021-101-A and 2021-101-B

Contract Documents

June 2021

Battle Creek Roads and Mission Hill Road

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

Contract Documents

Prepared for

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

Prepared by

Parametrix 1019 39th Ave SE Suite 100 Puyallup, WA 98374 253-604-6600 www.parametrix.com

CITATION

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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.



Prepared by John Lewis Wright III, PE

Checked by Jenna Anderson



Approved by Happy David Longfellow, PE

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Division 0

Bidding Requirements, Contract Forms, and Conditions of Contract

The Tulalip Tribes of Washington

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-A and 2021-101-B

The Battle Creek Roads and Mission Hill Road 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 Battle Creek Roads and Mission Hill Road project will include pavement rehabilitation of the existing streets within the Battle Creek neighborhood and pavement rehabilitation of Mission Hill Road from Mission Beach Road to the Tulalip Recovery Center. The project is located on the Tulalip Reservation.

Schedule A – Battle Creek Roads work includes but is not limited to full depth pavement and subgrade replacement and utility and monument cover adjustments on Lloyd Hatch Sr. Drive, Alphonsus Bob Loop Road., Ernie Cladoosby Sr. Street, Thomas Gobin Lane, and Wesley Charles Jr. Road. New road extension on 28th Avenue NW with sidewalk, curb and gutter, curb ramps, drainage improvements, illumination system, and Access Road connection. Work also includes associated channelization, signing, and surface restoration in accordance with these Specifications and the Plans.

Schedule B – Mission Hill Road work includes but is not limited to full depth pavement, subgrade, curb and gutter, sidewalk, curb ramp, and driveway replacement. Work also includes associated utility cover adjustments, channelization, signing, and surface restoration in accordance with these Specifications and the Plans.

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: Battle Creek Roads and Mission Hill Road until <u>JUNE 30, 2021, at 2:00 p.m.</u> 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.

NTB-2

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 Battle Creek Roads and Mission Hill Road. Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B ("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 Tula	lip Tribes of Washington hereby invite you to submit a Bid Proposal for this project.
Article 1	
Article 2	Bidding Procedures
Article 3	
Article 4	Withdrawal of Bid
Article 5	Bid Estimate
Article 6	Bid Guaranty and Contract Bond
Article 7	
Article 8	Applicable Law and Forum

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

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

BATTLE CREEK ROADS AND MISSION HILL ROAD

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 tenpercent (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

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- 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.

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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

- 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 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

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- 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,

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- 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

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- 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.

The Tulalip Tribes of Washington

BID PROPOSAL FORM			
Project Name: B	attle Creek Roads and Mission Hill Ro	ad Date of Bid:	
Location of Project:	Lloyd Hatch Sr. Drive and Alphonsus Tulalip, WA 98271	s Bob Loop Road	
	And		
	Mission Hill Road and Mission Beac Tulalip, WA 98271	ch Road	
COMPANY NAME (OF BIDDER:		
CERTIFIED NATIVE	E AMERICAN OWNED BUSINESS:		
YES	_ If Yes, Percentage (%) of Indian Ow	nership: 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 Nos.: 2021-101-A and 2021-101-B Battle Creek Roads and Mission Hill Road			
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 BATTLE CREEK ROADS AND MISSION HILL ROAD SCHEDULE OF PRICES SCHEDULE A – Battle Creek Roads

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

SCHEDULE B - Mission Hill Road

	SCHEDULE A: BATTLE CREEK ROADS								
ITEM NO.	SECTION	ITEM DESCRIPTION	UNIT	APPROX. QTY.	l	INIT 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 (\$2000 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	5	\$		\$		
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	1-09.6	CEDAR TREE RELOCATION	FA	1	\$	10,000	\$ 10,000		
A-12	1-09.7	MOBILIZATION	LS	1	\$		\$		
A-13	1-10.5	PROJECT TEMPORARY TRAFFIC CONTROL	LS	1	\$		\$		
A-14	2-01.5	CLEARING AND GRUBBING	LS	1	\$		\$		
A-15	2-02.5	REMOVING DRAINAGE STRUCTURE	EA	1	\$		\$		
A-16	2-02.5	REMOVING STORM SEWER PIPE	LF	100	\$		\$		
A-17	2-02.5	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$		\$		
A-18	2-03.5	ROADWAY EXCAVATION INCL. HAUL	CY	5,000	\$		\$		
A-19	2-03.5	DITCH EXCAVATION INCL. HAUL	CY	570	\$		\$		
A-20	2-03.5	UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL	CY	1,800	\$		\$		
A-21	2-03.5	GRAVEL BORROW INCL. HAUL	CY	22	\$		\$		
A-22	2-09.5	STRUCTURE EXCAVATION CLASS B INCL. HAUL	CY	100	\$		\$		
A-23	2-09.5	SHORING OR EXTRA EXCAVATION CLASS B	SF	700	\$		\$		
A-24	4-04.5	CRUSHED SURFACING BASE COURSE	TN	5,300	\$		\$		
A-25	4-04.5	CRUSHED SURFACING TOP COURSE	TN	110	\$		\$		
A-26	5-04.5	HMA CL 1/2" PG 58H-22	TN	3,800	\$		\$		
A-27	5-04.5	SPEED HUMP	EA	12	\$		\$		

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

	SCHEDULE A: BATTLE CREEK ROADS							
ITEM NO.	SECTION	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS		
A-28	7-04.5	DUCTILE IRON STORM SEWER PIPE 12 IN. DIAM.	LF	60	\$	\$		
A-29	7-04.5	CORRUGATED POLYETHYLENE STORM SEWER PIPE 12 IN. DIAM.	LF	100	\$	\$		
A-30	7-04.5	SOLID WALL PVC STORM SEWER PIPE 12 IN. DIAM.	LF	5	\$	\$		
A-31	7-05.5	CATCH BASIN TYPE 1	EA	5	\$	\$		
A-32	7-05.5	ADJUST CATCH BASIN	EA	2	\$	\$		
A-33	7-05.5	ADJUST MANHOLE	EA	24	\$	\$		
A-34	7-05.5	REMOVE GRATE AND REPLACE WITH VANED GRATE	EA	53	\$	\$		
A-35	7-08.5	GRAVEL BACKFILL FOR PIPE ZONE BEDDING	CY	40	\$	\$		
A-36	7-12.5	ADJUST VALVE BOX	EA	14	\$	\$		
A-37	7-14.5	REMOVE AND REPLACE HYDRANT ASSEMBLY	EA	3	\$	\$		
A-38	8-01.5	EROSION CONTROL AND WATER POLLUTION PREVENTION	LS	1	\$	\$		
A-39	8-02.5	ROADSIDE RESTORATION	LS	1	\$	\$		
A-40	8-02.5	SEEDING, FERTILIZING AND MULCHING	ACRE	0.40	\$	\$		
A-41	8-02.5	TOPSOIL TYPE A	SY	1,820	\$	\$		
A-42	8-04.5	CEMENT CONC. ROLLED CURB AND GUTTER	LF	325	\$	\$		
A-43	8-04.5	CEMENT CONC. TRAFFIC CURB AND GUTTER	LF	420	\$	\$		
A-44	8-04.5	CEMENT CONC. PEDESTRIAN CURB	LF	60	\$	\$		
A-45	8-13.5	ADJUST MONUMENT CASE AND COVER	EA	2	\$	\$		
A-46	8-14.5	CEMENT CONC. SIDEWALK	SY	200	\$	\$		
A-47	8-14.5	CEMENT CONC. CURB RAMP TYPE PARALLEL A	EA	2	\$	\$		
A-48	8-14.5	CEMENT CONC. CURB RAMP TYPE PARALLEL B	EA	1	\$	\$		
A-49	8-14.5	DETECTABLE WARNING SURFACE	SF	28	\$	\$		
A-50	8-15.5	QUARRY SPALLS	TN	15	\$	\$		
A-51	8-20.5	CONDUIT PIPE 2 IN. DIAM.	LF	340	\$	\$		
A-52	8-20.5	JUNCTION BOX	EA	2	\$	\$		
A-53	8-20.5	ILLUMINATION SYSTEM	LS	1	\$	\$		
A-54	8-20.5	UTILITY POLE FOR TULALIP BROADBAND	EA	1	\$	\$		
A-55	8-21.5	PERMANENT SIGNING	LS	1	\$	\$		
A-56	8-22.5	PLASTIC STOP LINE	LF	50	\$	\$		
A-57	8-22.5	PLASTIC CROSSWALK LINE	SF	740	\$	\$		
A-58	8-22.5	PLASTIC SPEED BUMP (HUMP) SYMBOL	EA	24	\$	\$		
	l	Subtotal:	1	l	\$	1 '		
		TERO (1.75%):			\$			
		TOTAL (Including TERO):			\$			

	SCHEDULE B: MISSION HILL ROAD								
ITEM NO.	SECTION	ITEM DESCRIPTION	UNIT	APPROX. QTY.	ι	JNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS		
B-1	1-04.4(1)	MINOR CHANGE	CALC	1	\$	25,000	\$ 25,000		
B-2	1-05.4	ROADWAY SURVEYING	LS	1	\$		\$		
B-3	1-05.4	ADA FEATURES SURVEYING	LS	1	\$		\$		
B-4	1-05.18	RECORD DRAWINGS (MINIMUM BID \$1,000)	LS	1	\$		\$		
B-5	1-07.15(1)	SPCC PLAN	LS	1	\$		\$		
B-6	1-09.6	RESOLUTION OF UTILITY CONFLICTS	FA	1	\$	25,000	\$ 25,000		
B-7	1-09.7	MOBILIZATION	LS	1	\$		\$		
B-8	1-10.5	PROJECT TEMPORARY TRAFFIC CONTROL	LS	1	\$		\$		
B-9	2-01.5	CLEARING AND GRUBBING	LS	1	\$		\$		
B-10	2-02.5	REMOVING DRAINAGE STRUCTURE	EA	2	\$		\$		
B-11	2-02.5	REMOVING STORM SEWER PIPE	LF	15	\$		\$		
B-12	2-02.5	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$		\$		
B-13	2-03.5	ROADWAY EXCAVATION INCL. HAUL	CY	1,310	\$		\$		
B-14	2-03.5	UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL	CY	270	\$		\$		
B-15	2-09.5	STRUCTURE EXCAVATION CLASS B INCL. HAUL	CY	10	\$		\$		
B-16	2-09.5	SHORING OR EXTRA EXCAVATION CLASS B	SF	50	\$		\$		
B-17	4-04.5	CRUSHED SURFACING BASE COURSE	TN	1,500	\$		\$		
B-18	4-04.5	CRUSHED SURFACING TOP COURSE	TN	150	\$		\$		
B-19	5-04.5	HMA CL 1/2" PG 58H-22	TN	500	\$		\$		
B-20	7-04.5	SOLID WALL PVC STORM SEWER PIPE 12 IN. DIAM.	LF	15					
B-21	7-05.5	CONNECTION TO DRAINAGE STRUCTURE	EA	1	\$		\$		
B-22	7-05.5	CATCH BASIN TYPE 2 48 IN. DIAM.	EA	1	\$		\$		
B-23	7-05.5	ADJUST CATCH BASIN	EA	8	\$		\$		
B-24	7-05.5	ADJUST MANHOLE	EA	6	\$		\$		
B-25	7-05.5	REMOVE GRATE AND REPLACE WITH VANED GRATE	EA	8	\$		\$		
B-26	7-05.5	REMOVE GRATE AND REPLACE WITH SOLID COVER	EA	1	\$		\$		
B-27	7-12.5	ADJUST VALVE BOX	EA	5	\$		\$		
B-28	7-15.5	ADJUST WATER METER BOX	EA	1	\$		\$		
B-29	8-01.5	EROSION CONTROL AND WATER POLLUTION PREVENTION	LS	1	\$		\$		
B-30	8-02.5	ROADSIDE RESTORATION	LS	1	\$		\$		
B-31	8-02.5	SEEDING, FERTILIZING AND MULCHING	ACRE	0.06	\$		\$		
B-32	8-02.5	TOPSOIL TYPE A	SY	250	\$		\$		
B-33	8-02.5	PSIPE "EMERALD GREEN" ARBORVITAE	EA	2	\$		\$		
B-34	8-04.5	CEMENT CONC. TRAFFIC CURB AND GUTTER	LF	1,150	\$		\$		
B-35	8-04.5	CEMENT CONC. PEDESTRIAN CURB	LF	225	\$		\$		
B-36	8-06.5	CEMENT CONC. DRIVEWAY ENTRANCE	SY	86	\$		\$		

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

	SCHEDULE B: MISSION HILL ROAD							
ITEM NO.	SECTION	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS		
B-37	8-14.5	CEMENT CONC. SIDEWALK	SY	610	\$	\$		
B-38	8-14.5	CEMENT CONC. CURB RAMP TYPE PARALLEL A	EA	8	\$	\$		
B-39	8-14.5	CEMENT CONC. CURB RAMP TYPE PARALLEL B	EA	3	\$	\$		
B-40	8-14.5	DETECTABLE WARNING SURFACE	SF	90	\$	\$		
B-41	8-21.5	PERMANENT SIGNING	LS	1	\$	\$		
B-42	8-22.5	PLASTIC STOP LINE	LF	31	\$	\$		
Subtotal:				\$				
TERO (1.75%):				\$				
TOTAL (Including TERO):				\$				

BID SUMMARY

Schedule A Total (including 1.75% TERO):	\$
Schedule B Total (including 1.75% TERO):	\$
TOTAL Schedule A + Schedule B:	\$

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.

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

(Insert Number of Employees)

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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

<u>SECTION IV A – LIST OF TULALIP TRIBAL MEMBER NAOB SUBCONTRACTOR(S) AND OR SUPPLIER(S)</u> (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.	\$				

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

			TYPE OF LOWER- TIER			ОВ
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.	\$				

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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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The Tulalip Tribes of Washington

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:

- 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.
- 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): corporationpartnership 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): corporationpartnership 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:

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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The Tulalip Tribes of Washington

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
Company	Contact Person	Priorie	Nauve	Sub or Supplier
JOB ORDER				
	ank has qualified persons, they a he TERO law.	re required to receive preference	е	
Job Title	Number of Positions	Rate of Pay		Date from / to
e e				
<u> </u>				
Foreman to contact	cell:			
my knowledge. I unde	swers and statements are true, rstand that untruthful or mislea ocation of any certification gran	ding answers are cause for d		
Print Name	Signature	Title	Date	
~~~~ ~~~~~~~~~~~	~~~~~ Office use	only ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	~~~~~~	~~~~~
		•		
Recommended by	Date	Managers Signature	Date	Yes NO Approved
and display a registrative of a shake and a shake a sh	1000000000000	objustacion si tra di Santa sin reduit. Con contres portues	210,000,000,000	303-004 • • • • • • • • • • • • • • • • • •
Notes:				

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Project Name

#### **Subcontractor List**

Prepared in compliance with RCW 39,30,060 as amended

#### To Be Submitted with the Bid Proposal

Failure to list subcontractors with whom the bidder, if awarded the contract, will directly subcontract fo 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 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 <b>must</b> 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, e	tc,

Revised 08/2012

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

future use and no wiring or electrical current is connected during the project.

BATTLE CREEK ROADS AND MISSION HILL ROAD

SR

DOTForm 271-015 EF

are considered electrical equipment and therefore considered part of electrical work, even if the installation is for

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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 <u>Bid Proposal Form</u>, <u>Section IV</u>.

Contract Title.	
Bidder's Business Name:	
NAOB's Business Name:	
NAOB Signature:	
NAOB's Representative	_
Name and Title:	
Date:	
Section IV. Failure to do so will	with what is shown on the bidder's Bid Proposal Form, result in bid rejection. See Instructions to Bidders Participation for Subcontractors.
	ork:

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#### The Tulalip Tribes of Washington

#### FORM OF BID GUARANTY & CONTRACT BOND

KNOW ALL PERSONS	as Princip	,	ınaı we,	the undersigned .
(Address)	'			,
and		as Sure	ty, are here	by held and firmly
bound unto the Tulalip Tribes of sum of the dollar amount of the to undertake the	bid submitted	by the Principal	•	•
The penal sum, referred to he Tulalip Tribes, incorporating any a allowance bids made by the Principal are accepted by the Tulalip Tribes (\$). (If the about the Principal's bid, including alter stated must not be less than the dollars and cents. A percentage is truly to be made, we hereby juddinistrators, successors and as	idditive or deduction on the data in no case shove line is left nates and unit full amount of s not acceptabiointly and se	nctive alternate to abter the referred to abte the penal sublank, the penal prices. Alternate the bid, includingle.) For the pay	pids or any a pove to the T am exceed that sum will be tively, if com ag alternates ment of the p	dditive or deductive fulalip Tribes, which le amount of dollars the full amount of upleted, the amount and allowances, in penal sum well and

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

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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 d	ay of,
PRINCIPA		
Ву:		- -
Title:		<del>-</del>
SURETY:		
		_
Address:		-
		-
Phone:	()	-
By:		_
Attorney-ir	n-Fact	
SURETY	AGENT:	
		_
		- -
Phone:	( )	

#### The Tulalip Tribes of Washington

#### STATEMENT OF INTENDED SURETY

(Required if Bid Deposit is NOT a Surety Bond)

sureties or sure who meets the 100% of the ba	H BIDDER'S SEALED ety company, to the e requirements of Chapt se bid in the event _	effect that: ter 48.28 RCW,	will promptly	provide a	(Na	ame o n the a e) is a	of Sure amour warde	ety), nt of ed a
proposed Cons	ruction Contract is acc	ceptable to the	Surety.	(i rojoot	Besonption	ana	tilat	uic
Surety:								
Signature of Au	thorized Representativ	/e						
Printed Name /	Title of Authorized Re	presentative						
This statem	ent, if required, must t	pe included in B	idder's sealed	l bid for B	idder's Bid to	be con	nsider	ed.
By:								
Title:								
SURETY:								
Address:								
Phone:	()							
Ву:								
Attorney-ir	-Fact							
SURETY A	AGENT:							
Address:								
Phone:	()							

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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#### The Tulalip Tribes of Washington

#### **BID PROPOSAL BOND** KNOW ALL BY THESE PRESENTS, that (Name of Bidder) partnership, or individual) duly organized under the as principal, and (Name of Surety) corporation, laws the State а 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 ______, 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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#### **Payment Bond**

CONTRACTOR: (Name, legal status and address)	SURETY: (Name, legal status and principal place of business)	
OWNER: (Name, legal status and address)		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
CONSTRUCTION CONTRACT		plural where applicable.
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)	SURETY Company: (Corporate Seal)	
Signature: Name and Title: (Any additional signatures appear on the last	Signature:  Name and Title:  page of this Payment Bond.)	
(FOR INFORMATION ONLY — Name, addr AGENT or BROKER:	ess and telephone)  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,
  - 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;
- 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:

Address

Name and Title:

Address



#### Performance Bond

CONTRACTOR:	SURETY:	
(Name, legal status and address)	(Name, legal status and principal place	
	of business)	
		This document has important legal
		consequences. Consultation with an attorney is encouraged with
OWNER:		respect to its completion or
(Name, legal status and address)		modification.
		Any singular reference to
		Contractor, Surety, Owner or other party shall be considered
CONSTRUCTION CONTRACT		plural where applicable.
Date:		
Amount:		
Description:		
(Name and location)		
BOND		
Date:		
(Not earlier than Construction Contract Date	e)	
Amount:		
Maria di Balanda		
Modifications to this Bond: ☐ None	☐ See Section 16	
CONTRACTOR AS PRINCIPAL	SURETY	
Company: (Corporate Seal)	Company: (Corporate Seal)	
Signature:	Signature:	
Name	Name	
and Title: (Any additional signatures appear on the las	and Title:	
(2111) additional signatures appear on the las	i page of this I erformance Dona.)	
(FOR INFORMATION ONLY — Name, addr		
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
  - 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:
  - 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:



#### 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.

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#### 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.

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

BATTLE CREEK ROADS AND MISSION HILL ROAD

#### 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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#### **CONSTRUCTION CONTRACT**

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#### SECTION ONE **DESCRIPTION OF WORK**

This Contract consists of this written agreement and all appurtenant "Contract documents" described in Section Seven of this agreement. Contractor shall perform the following work in accordance with this Contract and Contract documents: All work necessary to build The PROJECT NAME in accordance with, and as more specifically set forth in, Ex. C "scope of work" and the other relevant Contract Documents incorporated herein pursuant to Section 8.

#### **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 fifteen percent (15%) 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.
- 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.
- 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

NAME:_

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.

	···
C	DATE:
•	E) The Owner shall retain 5% percent of the amount of progress payments until completion and acceptance of all work under the Contract.
v ii	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 taker nto consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the naterial is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the
C	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

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- (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 21 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 45 days calenda
with all work complete by	All construction must be completed in accordance with the approved
Construction Schedule. Fail	ure 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 17, 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 45 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 exhibits:

- a. This Instrument
- b. Invitation to Bid
- c. Project Manual (Scope of work) -Plans and Specifications Titled ______

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- d. Structural Calculations
- e. Addendum #
- f. Approved TERO Compliance Plan, including one for each subcontractor
- g. Proposal, Estimate Narrative, Estimate Detailed Report
- h. Calendar Day Construction Schedule

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) <u>General Administration of Contract</u>. 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) <u>Inspection, Opinions and Progress Reports.</u> 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) <u>Access to worksite for inspections.</u> 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) <u>Interpretation of Contract documents.</u> 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) <u>Rejection and stoppage of work.</u> 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) <u>Progress payment certification.</u> 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 Three 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.

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## 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) <u>Contractor's Representative.</u> 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) <u>Discipline and employment.</u> 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) <u>Furnishing of labor, materials, etc.</u> 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) <u>Manufacturer's instructions.</u> 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) <u>Compliance with laws and regulations.</u> 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.

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- (I) <u>Warranty of fitness of equipment and materials.</u> 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) <u>Cleaning and protection.</u> 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) <u>Furnishing of design and engineering plans as identified in the Contract Documents.</u> 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) <u>Clean up.</u> 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.
- 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

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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) <u>Contractor's Workers Compensation</u>.

- 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) <u>Builder's Risk.</u>

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.
- 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(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) <u>Waivers of Subrogation</u>. 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.
  - 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) <u>Drug free Workplace.</u> 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.

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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) <u>Archaeological and Historical Objects.</u> 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) <u>Inspection.</u> 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) <u>Availability.</u> 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.

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(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 – EXTENSION 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) <u>Termination by Owner.</u> 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 Subsubcontractors. 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 14 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) The Contractor shall, ten (10) days prior to commencing work, 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.

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### 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.

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(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) <u>Contractors Punch List.</u> 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) <u>Architect/Engineer's Punch List</u>. 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) <u>Deferred Items.</u> 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) <u>Guarantee Period of Inspection.</u> 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

PROJECT # NAME Page | 18 Initial _____

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.

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- (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.

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- (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

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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 (F) (2) and (F) (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 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.

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- (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 30(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 31.
- (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 31.
- (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 31.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.

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(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 31.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 31.B. the Contractor shall incorporate by reference the provisions of this Section 31B 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;
  - 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;

CONTRACTOR

PROJECT # NAME

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.

OWNER Transportation Division

Initial _____

CONTRACT OFFICER NAME

### 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:

	The Tulalip Tribes	
	6406 Marine Drive	
	Tulalip, WA 98271_	
Contractor shall notify O	wner of any Change of Address.	
	SECTION THIRTY-SEVEN T.E.R.O	
Contractor agrees that Contract	is subject to the Tulalip Tribal Employment Rights Ordin	nance, TTC 9.05.
IN WITNESS WHEREOF, the partie above written.  Attest:	s have executed this agreement at the Tulalip Indian Reso	ervation as of the day and year first
Contractor:	Tulalip Tribes Contract Officer:	Tulalip Tribes (BOD):
Signature	Signature	Signature
Title	Title	
Title	ride	Title
Date	Date	Title Date

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# The Tulalip Tribes of Washington The Battle Creek Roads and Mission Hill Road Project

#### **INTERIM WAIVER AND RELEASE OF CLAIMS**

TO THE TULALIP TRIBES OF WASHINGTON ("OW	/NER"):	
services, or supplied materials or equipment (collecti	(the "Releasing Party") has furnished labor or vely, the "Work") for construction on The Battle Creek b), located at, Tulalip, WA	
Upon receipt of payment by the Releasing Party of \$		
	(the Releasing Party)	
DATED:	By:	
	Printed Name:	
	Its:	
[Notary Seal]		
State of:	County of:	
Subscribed and sworn to before me this		
Notary Public:	<u>-</u>	
My Commission expires:	-	

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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# The Tulalip Tribes of Washington The Battle Creek Roads and Mission Hill Road Project

# FINAL WAIVER AND RELEASE OF CLAIMS

TO THE TULALIP TRIBES OF WASHINGTON (	("OWNER"):
(the "Rele	, whether in cash, by check or by joint check, easing Party") has furnished labor or services, or supplied
materials or equipment for construction on The "Project"), located at located at	e Battle Creek Roads and Mission Hill Road Project (the, Tulalip, WA 98271.
rights to submit stop notices, suits, demands, whatsoever (whether under statute, in equity o otherwise) (each, individually, a "Claim") against is referred to as the Owner in the Contract Docum (collectively, the "Released Parties"), or against	nally waives and releases any and all claims, stop notices, protests, damages, losses and expenses of any nature r otherwise and whether received through assignment or or with respect to The Tulalip Tribes of Washington, which nents, or any other party holding an interest in the Property or with respect to the Project, the Property, improvements us and machinery furnished for the Property (collectively,
been paid all amounts due and owing to it for we Work and the Releasing Party represents and	nt, the Releasing Party expressly acknowledges that it has ork, services, material or equipment in connection with the warrants that all amounts due and owing to consultants, ing Party in connection with this Project have been paid,
subcontractors, suppliers or laborers at any tier any of the Released Properties, then the Releas secure the release or discharge of such Claim	e Releasing Party or any of its lower tier consultants, against or with respect to any of the Released Parties or sing Party (1) shall immediately release and discharge, or and (2) shall indemnify, defend and hold harmless the costs, damages, expenses, court costs and attorney fees g 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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Form 27 0032

# **Buyer's Retail Sales Tax Exemption Certificate**

Do not use this form for resale purchases

# This certificate is for:

#### Single use

Name:

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)).

Date:

Mailing address:		
City:	State:	Zip:
I, the undersigned buyer, certify I am making an exempt (Enter information and/or check applicable box(es)).	purchase for the fol	lowing reason:
1 Nonresident vessel purchases:		
Place of residence:		
Type of proof of residence accepted (driver's license, State	e 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 o	outside Washington and will
leave Washington water within 45 days		
Seller's signature:		

To ask about the availability of this publication in an alternate format for the visually impaired, please call 360-705-6705. Teletype (TTY) users may use the WA Relay Service by calling 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.

# 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. Fuel to be consumed outside of Washington by a vessel primarily engaged in foreign commerce.

Vessel name:

Type of fuel: Quantity:

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

Registered vessel name:

Vessel number:

g. 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:

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

# Buyer's Retail Sales Tax Exemption Certificate Form



- 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

  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.

# **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 (expla	in)			
Type of business:		Acco	ount 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 fuel consumed outside the territorial waters of the United States by vessels used primarily in foreign commerce. Buyers must list the vessel name, type of fuel and quantity. Reference: RCW 82.08.0261 and WAC 458-20-175

Line 4f 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 4g 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

# Buyer's Retail Sales Tax Exemption Certificate Form



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 5I** 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 50 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

# Buyer's Retail Sales Tax Exemption Certificate Form



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

**Special Provisions** 

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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.

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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.

19 20 21

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:

23 24 25

22

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

26 27 28

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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.

35 36

Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any

37 38 Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current edition

• Engineering Design and Development Standards, Snohomish County

39 40

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Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

Public Works, current edition

BATTLE CREEK ROADS AND MISSION HILL ROAD

1	DIVISION 1
2	GENERAL REQUIREMENTS
4 5	DESCRIPTION OF WORK (SCHEDULES A & B)
6	(*****)
7 8	The Battle Creek Roads and Mission Hill Road project will include pavement rehabilitation of the existing streets within the Battle Creek neighborhood
9	and pavement rehabilitation of Mission Hill Road from Mission Beach Road
10	to the Tulalip Recovery Center. The project is located on the Tulalip Reservation.
11 12	Reservation.
13	Schedule A - Battle Creek Roads work includes but is not limited to ful
14	depth pavement and subgrade replacement and utility and monument cover
15 16	adjustments on Lloyd Hatch Sr. Dr., Alphonsus Bob Loop Rd., Ernie Cladoosby Sr. St., Thomas Gobin Ln., and Wesley Charles Jr. Rd. New road
17	extension on 28th Ave NW with sidewalk, curb and gutter, curb ramps
18	drainage improvements, illumination system, and Access Road connection
19	Work also includes associated channelization, signing, and surface
20	restoration in accordance with these Specifications and the Plans.
21 22	Schedule B – Mission Hill Road work includes but is not limited to full depth
23	pavement, subgrade, curb and gutter, sidewalk, curb ramp and driveway
24	replacement. Work also includes associated utility cover adjustments
25 26	channelization, signing, and surface restoration in accordance with these Specifications and the Plans.
27 28	1-01 DEFINITIONS AND TERMS
29	
30 31	1-01.3 Definitions
32 33	The tenth, eleventh, and twelfth paragraphs of Section 1-01.3 are deleted.
34 35	The following new terms and definitions are inserted after the twentieth paragraph of Section 1-01.3:
36	of Section 1-01.5.
37	(*****)
38 39	Dates
39 40	Bid Opening Date
41	The date on which the Contracting Agency publicly opens and reads
42	the bids.

1	
2	Award Date
3	The date of the formal decision of the Contracting Agency to accept
4	the lowest responsible and responsive bidder for the Work.
5	
6	Contract Execution Date
7	The date the Contracting Agency officially binds the Agency to the
8	Contract.
9	
10	Notice to Proceed Date
11	The date stated in the Notice to Proceed on which the Contract time
12	begins.
13	
14	Substantial Completion Date
15	The day the Engineer determines the Contracting Agency has full and
16	unrestricted use and benefit of the facilities, both from the operational
17	and safety standpoint, any remaining traffic disruptions will be rare
18	and brief, and only minor incidental work, replacement of temporary
19	substitute facilities, plant establishment periods or correction or repair
20	remains for the Physical Completion of the total Contract.
21	
22	Physical Completion Date
23	The day all of the Work is physically completed on the project. All
24	documentation required by the Contract and required by law does not
25	necessarily need to be furnished by the Contractor by this date.
26	Ormaletica Bota
27	Completion Date
28	The day all the Work specified in the Contract is completed and all the
29	obligations of the Contractor under the Contract are fulfilled by the
30	Contractor. All documentation required by the Contract and required
31	by law must be furnished by the Contractor before establishment of
32	this date.
33	Final Assentance Data
34	Final Acceptance Date
35	The date on which the Contracting Agency accepts the Work as
36	complete.

1 2 3	The following definitions in Section 1-01.3 are replaced and revised to read:
4	(*****)
5	Award
6 7	The formal decision of the Contracting Agency to accept the most responsible and responsive Bidder for the Work.
8	Contracting Agency
9 10 11	Agency of Government that is responsible for the execution and administration of the Contract. "Contracting Agency" refers to the Tulalip Tribes of Washington.
12	Engineer
13 14	The Contracting Agency's representative who administers the construction program for the Contracting Agency.
15	Inspector
16 17	The Contracting Agency's representative who inspects Contract performance in detail.
18	Laboratory
19 20	The laboratories of the Contracting Agency, or other laboratories the Contracting Agency authorizes to test Work, soils, and materials.
21	Project Engineer
22 23	The Engineer's representative who directly supervises the engineering and administration of a construction project.
24 25	Section 1-01.3 is supplemented with the following:
26	(*****)
27	
28 29	All references to "final contract voucher certification" shall be interpreted to mean the final payment form established by the Contracting Agency.
30 31 32	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.
33 34 35 36 37 38	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.

1	Alternate
2	One of two or more units of work or groups of bid items, identified separately
3	in the Bid Proposal, from which the Contracting Agency may make a choice
4	between different methods or material of construction for performing the
5	same work.
6	
7	Alternative Dispute Resolution
8	A method of resolving disputes other than arbitration or litigation.
9	
10	Business Day
11	A business day is any day from Monday through Friday, except holidays as
12	listed in Section 1-08.5.
13	
14	Construction Manager
15	The individual or firm responsible for providing administration, management
16	and related services as required to coordinate the Project, coordinate the
17	Contractors and provide other services identified in the Contract
18	Documents.
19	
20	Contract Time
21	The period of time established by the terms and conditions of the contract
22	within which the work must be completed.
23	
24	Indian/Native American
25	The term "Indian or Native American" shall mean any person who is a
26	member of a federally recognized Indian tribe, and recognized as an Indian
27	by the United States, pursuant to its trust responsibility to American Indians.
28	
29	Liquidated Damages
30	The sum established in the Contract Documents as the predetermined
31	measure of damages to be paid to the Tulalip Tribes of Washington due to
32	the Contractor's failure to complete the Work, or portions thereof, within
33	stipulated times.
34	
35	NAOB or NAOB's
36	Native American Owned Business that has been certified by Tulalip TERO.
37	
38	Notice of Intent to Award
39	The notice provided to the apparently successful Bidder stating that upon
40	satisfactory compliance with all conditions precedent for execution of the
11	Contract Form, within the time specified, the Tulalip Tribes of Washington
12	intends to execute a Contract Form with the Bidder.

#### 1 Notice to Proceed 2 A notice provided by the Tulalip Tribes of Washington to the Contractor authorizing the Contractor to proceed with the Work and establishing the 3 4 date for completion of the Work. 5 6 Preference/Preferred Employee/Hiring The term "Preferred Employee" shall mean a person entitled to a preference 7 in employment under Ordinance No. 60, who must be hired in tier 8 preference order before a non-Indian person, whenever an opening is 9 10 available. 11 Regulations/Ordinance 12 13 Shall mean the regulations implementing any Ordinance adopted by the Tulalip Tribal Employment Rights Commission and the Tulalip Board of 14 15 Directors, which is a law within the boundaries of the reservation. 16 17 Request for Information (RFI) Written request from the Contractor to the Engineer, through the 18 Construction Manager, seeking an interpretation or clarification of the 19 Contract Documents 20 21 22 Reservation Shall mean all lands and waters within the exterior boundaries of the Tulalip 23 Indian Reservation or within the jurisdiction of the Tulalip Tribes. 24 25 26 Samples 27 Physical examples furnished by the Contractor to illustrate materials, 28 equipment or workmanship and establish Standards by which the Work will 29 be judged. 30 31 Surety 32 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 33 against all direct and consequential damages suffered by failure of the 34 35 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 36 Suppliers and laborers, as applicable. 37 38 39 **TERO** Means the "Tulalip Tribal Employment Rights Office". 40 41 **Traffic** 42 43 Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic. 44

2	Tribal Court	
3	Shall mean the tribal court of the	Tulalip Tribes of Washington.
4		
5	Tribal Entity	
6	Means all subsidiary entities of	the Tulalip Tribes and is intended to be as
7	broad and encompassing as po-	ssible to ensure the Ordinance's coverage
8	over all employment and contra	ct activities within the Nation's jurisdiction
9	and the term shall be so interpre	eted by the Commission and the Courts.
10		
11	Tribal Preference	
12		ants which gives tribal members a higher
13	preference in employment on tri	bally funded projects or tribal entities.
14		
15	Tribal Member	
16		he term "Member" shall mean any person
17	who is an enrolled member of th	e Tulalip Tribes.
18		
19	Tribe	
20		all mean the Tulalip Tribes of Washington,
21	unless the context clearly indica	tes otherwise.
22		
23	Tulalip TERO Code	
24	• • • • •	Rights Office" (TERO) Code is the Tribal
25		ods and procedures to give preference to
26	<b>.</b>	ining and all other aspects of employment
27		and specifies the methods and procedures
28		certified NAOB's when contracting and
29	subcontracting for goods or serv	ices on the Reservation.
30	Tulalia Tribas	
31	Tulalip Tribes	2
32 33	See Tulalip Tribes of Washington	I.
აა 34	Tulalin Tribas of Washington	
	Tulalip Tribes of Washington The Owner or entity for whom the	a Project is being constructed
35 36	The Owner of entity for whom the	e Project is being constructed.
30 37	Tulalip Tribes' Project Manage	r
38		e who provides management and oversight
39	for the project.	s who provides management and oversight
40	ior the project.	
40 41	Unit Price	
42		s the price per unit of measurement for
42 43		n the Contract Documents, which cost shall
44 44	include overhead, profit and any	
Tulalip 1	Fribes Project Nos.: 2021-101-A and 2021-101-B	BATTLE CREEK ROADS AND MISSION HILL ROAD

2	veteran
3	Shall mean a person who has been honorably discharged from the active
4	reserve, or National Guard armed forces of the United States including
5	Army, Navy, Marines, Air Force, and Coast Guard.
6	
7	Warranty
8	Legally enforceable assurance of the quality and performance of materials
9	and equipment.
10	
11	Waters of the Tribes
12	"Waters of the Tribes" means all streams, lakes, ponds, wetlands, salt
13	waters, watercourses, waterways, wells, springs, reservoirs, aquifers
14	irrigation systems, drainage systems, and all other bodies or accumulations
15	of water, surface and underground, natural or artificial, public or private,
16	which are contained within, flow through, or border upon:
17	
18	The lands, wetlands, and tidelands within the boundaries of the Tulalip
19	Tribes Reservation; or
20	
21	All lands, wetlands or tidelands outside the exterior boundaries of the
22	Reservation which are held in fee by the Tulalip Tribes or held in trust by
23	the United States government for the benefit of the Tulalip Tribes or its
24	individual members; and
25	
26	All lands, wetlands, or tidelands deemed Tulalip "Indian Country" as
27	defined in 18 U.S.C. 1151.
28	
29	Work
30	The construction and services required by the Contract Documents, to
31	include all labor, materials, equipment and services performed or provided
32	by the Contractor for the Project.
33	
34	1-02 BID PROCEDURES AND CONDITIONS
35	
36	1-02.1 Prequalification of Bidders
37	(*****)
38	
39	Delete this Section. See Instructions to Bidders.
40	

# 1-02.2 Plans and Specifications (*****)

3 4

1

2

Delete this Section and replace it with the following:

5 6

Information as to where Bid Documents can be obtained or reviewed is contained in the Call for Bids (Advertisement for Bids) for the work.

7 8 9

After award of the Contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

10 11

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.

12 13

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.

15

14

## 1-02.4 Examination of Plans, Specifications, and Site of Work

16 17 18

# 1-02.4(1) General

(August 15, 2016 APWA GSP, Option B)

19 20 21

The first sentence of the last paragraph is revised to read:

22 23

24

25

26

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.

27 28 29

This Section is supplemented with the following:

30 31 32

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(*****)

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.

37 38 39

The full Geotechnical Report, which includes soil log information, is included in the Appendix and is referenced information.

40

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# 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

1 2		employed by Contractor, and safety precautions and programs incident thereto; or
3		
4 5	2.	Other conclusions, interpretations, opinions, representations, and information contained in such reports; or
6 7 8 9 10	3.	Any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, conclusions, interpretations, opinions or information.
11 12	1-02.5 Pro	posal Forms
13 14	` ,	2.5 is deleted in its entirety.
15 16	1-02.6 Prej	paration of Proposal
17 18	The first par	ragraph of Section 1-02.6 is revised to read:
19	(*****)	
20 21		Contracting Agency will accept only those Proposals properly uted on the forms it provides.
<ul><li>22</li><li>23</li><li>24</li></ul>	·	aragraph of Section 1-02.6 is revised to read:
<ul><li>25</li><li>26</li><li>27</li></ul>		e space provided on the Bid Proposal Form, the Bidder shall confirm all Addenda have been received.
28 29	(*****)	
30 31	·	paragraph of Section 1-02.6 is deleted in its entirety.
32 33	1-02.7 Bid	Deposit
34 35 36	(*****) Section 1-02	2.7 is deleted in its entirety.
37 38	1-02.9 Deli	very of Proposal
39	(*****)	
40 41	Section 1-02	2.9 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:
<ol> <li>A complete statement of the origin, composition, and manufacture of any or all materials to be used,</li> </ol>
<ol><li>Samples of these materials for quality and fitness tests,</li></ol>
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,
<ol><li>A breakdown of costs assigned to any bid item,</li></ol>
E. Attandance at a conference with the Engineer or representatives
<ol><li>Attendance at a conference with the Engineer or representatives of the Engineer,</li></ol>
of the Engineer,
6. Obtain a Tulalip Tribes Business License to do business on the
Tulalip Indian Reservation,
<ol><li>Obtain, and furnish a copy of, a business license to do business,</li></ol>
<ol><li>Any other information or action taken that is deemed necessary to ensure that the Bidder is the lowest responsible bidder.</li></ol>

```
1
     1-03 AWARD AND EXECUTION OF CONTRACT
 2
 3
     1-03.1 Consideration of Bids
 4
     (*****)
 5
 6
     Section 1-03.1 is deleted in its entirety.
 7
 8
     1-03.2 Award of Contract
 9
10
     Section 1-03.2 is deleted in its entirety.
11
12
     1-03.3 Execution of Contract
     (*****)
13
14
     Section 1-03.3 is deleted in its entirety.
15
16
     1-03.4 Contract Bond
17
     Section 1-03.4 is deleted in its entirety.
18
19
20
     1-03.5 Failure to Execute Contract
21
22
     Section 1-03.5 is deleted in its entirety.
23
24
     1-03.6 Return of Bid Deposit
25
26
     Section 1-03.6 is deleted in its entirety.
27
     1-03.7 Judicial Review
28
     (*****)
29
30
     Section 1-03.7 is deleted in its entirety.
31
     1-04 SCOPE OF THE WORK
32
33
     1-04.2 Coordination of Contract Documents, Plans, Special Provisions,
34
     Specifications, and Addenda
35
36
     The second paragraph of Section 1-04.2 is revised as follows:
37
38
     (*****)
39
            Any inconsistency in the parts of the contract shall be resolved by following
40
41
            this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so
            forth):
42
43
44

    Addenda.

45
            2. Proposal Form.
```

Special Provisions

1	<ol><li>Special Provisions and APWA General Special Provisions.</li></ol>
2	4. General Provisions.
3	5. Contract Plans.
4	<ol><li>Snohomish County Engineering Design and Development Standards.</li></ol>
5	<ol><li>WSDOT Standard Specifications for Road, Bridge and Municipal</li></ol>
6	Construction.
7	8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.
8 9	1-04.4 Changes
10	1-04.4 Changes
11	1-04.4(1) Minor Changes
12	1 04.4(1) millor onanges
13	Revise the first paragraph to read:
14	The first time to pair a graph, the fresh and
15	(*****)
16	Payments or credits for changes amounting to \$25,000 or less for any one
17	item may be made under the Bid Item "Minor Change". At the discretion of
18	the Contracting Agency, this procedure for Minor Changes may be used in
19	lieu of the more formal procedure as outlined in Section 1-04.4, Changes.
20	
21	1-04.6 Variation in Estimated Quantities
22	(July 23, 2015 APWA GSP, Option B)
23	Revise the first paragraph to read:
24	Payment to the Contractor will be made only for the actual quantities of
25	Work performed and accepted in conformance with the Contract. When the
26	accepted quantity of Work performed under a unit item varies from the
27	original Proposal quantity, payment will be at the unit Contract price for all
28	Work unless the total accepted quantity of any Contract item, adjusted to

30

31

#### 1-05 CONTROL OF WORK

# 1-05.4 Conformity With and Deviations from Plans and Stakes

(January 13, 2021, 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:

 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.

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- 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.
- 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

Special Provisions

1	signing) provide stak	king and layout a	as necessary to adequately
2	<b>σ σ</b> , .	•	cific construction activity.
3			
4		•	are needed to the profiles
5	•		Contract Plans in order to
6	· · ·		inage where matching into
7			ooth transition from new
8	•	• .	ne Contractor shall submit
9	•	•	view and approval 10 days
10	prior to the beginning	g of work.	
11	The Contractor shall provide	the Contraction	a Agency conice of any
12 13	The Contractor shall provide calculations and staking data w		
13 14	Calculations and staking data wi	nen requested b	y the Engineer.
15	The Contractor shall ensure a	a surveying acc	uracy within the following
16	tolerances:	a surveying acc	diacy within the following
17	toleranoes.		
18		Vertical	<u>Horizontal</u>
19	Slope stakes	±0.10 feet	±0.10 feet
20	Subgrade grade stakes set	±0.10 100t	±0.10 100t
21	0.04 feet below grade	±0.01 feet	±0.5 feet
22	grade	_0.0001	(parallel to alignment)
23			±0.1 feet
24			(normal to alignment)
25			(,
26	Stationing on roadway	N/A	±0.1 feet
27	Alignment on roadway	N/A	±0.04 feet
28	Surfacing grade stakes	±0.01 feet	±0.5 feet
29	3 3		(parallel to alignment)
30			±0.1 feet
31			(normal to alignment)
32			,
33	Roadway paving pins for		
34	surfacing or paving	±0.01 feet	±0.2 feet
35			(parallel to alignment)
36			$\pm 0.1$ feet
37			(normal to alignment)
38			
39	The Contracting Agency may sp		, ,
40	spot-checks will not change the	e requirements f	for normal checking by the
41	Contractor.		
42			

Special Provisions

1	When staking roadway alignment and stationing, the Contractor shall
2	perform independent checks from different secondary control to ensure that
3	the points staked are within the specified survey accuracy tolerances.
4	p
5	The Contractor shall calculate coordinates for the alignment. The
6	Contracting Agency will verify these coordinates prior to issuing approval to
7	the Contractor for commencing with the work. The Contracting Agency will
8	require up to seven calendar days from the date the data is received.
9	
10	Contract work to be performed using contractor-provided stakes shall not
11	begin until the stakes are approved by the Contracting Agency. Such
12	approval shall not relieve the Contractor of responsibility for the accuracy of
13	the stakes.
14	
15	Stakes shall be marked in accordance with Standard Plan A10.10. When
16	stakes are needed that are not described in the Plans, then those stakes
17	shall be marked, at no additional cost to the Contracting Agency as ordered
18	by the Engineer.
19	
20	Payment
21	Payment will be made for the following bid item when included in the
22	proposal:
23	
24	"Roadway Surveying", lump sum.
25	
26	The lump sum contract price for "Roadway Surveying" shall be full pay for
27	all labor, equipment, materials, and supervision utilized to perform the Work
28	specified, including any resurveying, checking, correction of errors,
29	replacement of missing or damaged stakes, and coordination efforts.
30 31	(April 2, 2018, Option 4)
32	Contractor Surveying – ADA Features
33	ADA Feature Staking Requirements
34	The Contractor shall be responsible for setting, maintaining, and
35	resetting all alignment stakes, and grades necessary for the construction
36	of the ADA features. Calculations, surveying, and measuring required
37	for setting and maintaining the necessary lines and grades shall be the
38	Contractor's responsibility. The Contractor shall build the ADA features
39	within the specifications in the Standard Plans and contract documents.
40	•
41	ADA Feature As-Built Measurements

43 44 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

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1 2 3 4	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.
5 6 7 8	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.
9 10 11 12 13	All survey work performed by the Contractor shall conform to all applicable sections of the Revised Code of Washington and the Washington Administrative Code.
14 15 16	The Contractor shall provide all traffic control, signing, and temporary traffic control devices in order to provide a safe work zone.
17 18 19	Payment Payment will be made for the following bid item that is included in the Proposal:
20 21	"Licensed Surveying", per each.
<ul><li>22</li><li>23</li><li>24</li><li>25</li></ul>	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.
26 27 28	1-05.7 Removal of Defective and Unauthorized Work (October 1, 2005 APWA GSP)
29	Supplement this section with the following:
30 31 32 33 34 35	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.
36 37 38 39 40 41	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.

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#### 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

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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.

2425 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

1 2 3	within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.
4 5 6 7 8	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.
9 10 11	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.
12 13 14 15	1-05.13 Superintendents, Labor, and Equipment of Contractor (August 14, 2013 APWA GSP)
16 17	Delete the sixth and seventh paragraph of this Section.
18 19 20	<b>1-05.14 Cooperation With Other Contractors</b> (March 13, 1995 WSDOT GSP, Option 1)
21 22	This Section is supplemented with the following:
23 24 25 26 27 28	Other Contracts or Other Work It is anticipated that the following work adjacent to or within the limits of this project will be performed by others during the course of this project and will require coordination of the work:  *** Snohomish County Public Utility District (PUD) will connect power
29 30	for the new illumination system. They will also remove their existing facilities from the utility pole on 28 th Avenue NW. ***
31 32	Add the following new section:
33 34 35 36	1-05.16 Water and Power (October 1, 2005 APWA GSP)
37 38 39 40	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 Add the following new section: 2 3 1-05.18 Record Drawings New Section (March 8, 2013 APWA GSP) 4 5 6 The Contractor shall maintain one set of full size plans for Record Drawings, 7 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 8 has occurred. The Contractor shall not conceal any work until the required 9 10 information is recorded. 11 12 This Record Drawing set shall be used for this purpose alone, shall be kept 13 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 14 field office, and shall be available for review by the Contracting Agency at 15 16 all times. The Contractor shall bring the Record Drawings to each progress 17 meeting for review. 18 19 The preparation and upkeep of the Record Drawings is to be the assigned 20 responsibility of a single, experienced, and qualified individual. The quality 21 of the Record Drawings, in terms of accuracy, clarity, and completeness, is 22 to be adequate to allow the Contracting Agency to modify the computeraided drafting (CAD) Contract Drawings to produce a complete set of 23 Record Drawings for the Contracting Agency without further investigative 24 25 effort by the Contracting Agency. 26 27 The Record Drawing markups shall document all changes in the Work, both 28 concealed and visible. Items that must be shown on the markups include 29 but are not limited to: 30 31 Actual dimensions, arrangement, and materials used when different than shown in the Plans 32 33 34 Changes made by Change Order or Field Order. 35 36 Changes made by the Contractor. 37 38 Accurate locations of storm sewer, sanitary sewer, water mains and other water appurtenances, structures, conduits, light standards, 39 vaults, width of roadways, sidewalks, landscaping areas, building 40 41 footprints, channelization and pavement markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.). 42

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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.

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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

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Making Entries on the Record Drawings:

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Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:

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- Additions Red
- Deletions Green
- Comments -Blue
- Dimensions -Graphite

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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.

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Date all entries.

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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.).

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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

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

Drawings to the Contracting Agency. Contracting Agency acceptance of 1 2 the Record Drawings is one of the requirements for achieving Physical Completion. 3 4 5 Payment will be made for the following bid item: 6 **Record Drawings** Lump Sum Schedule A: (Minimum Bid \$ ***2,000.00***) Schedule B: (Minimum Bid \$ ***1,000.00***) 7 Payment for this item will be made on a prorated monthly basis for work 8 completed in accordance with this section up to 75% of the lump sum bid. 9 The final 25% of the lump sum item will be paid upon submittal and approval 10 11 of the completed Record Drawings set prepared in conformance with these 12 Special Provisions. 13 A minimum bid amount has been entered in the Bid Proposal for this item. 14 15 The Contractor must bid at least that amount. 16 1-06 CONTROL OF MATERIAL 17 18 19 Add the following new section: 20 21 22 1-06.7 Shop Drawings and Submittals **New Section** 23 24 1-06.7(1) General 25 Shop drawing and submittal review by the Owner or Owner's representative 26 27 will be limited to general design requirements only, and shall not relieve the Contractor from responsibility for errors or omissions or responsibility for 28 consequences due to deviations from the Contract Documents. No changes 29 30 may be made in any submittal after it has been reviewed except with written 31 notice and approval from the Owner. 32 33 The Contractor shall review each submittal and provide approval in writing 34 or by stamping, with a statement indicating that he has reviewed and approved the submittal, verified dimensional information, materials, catalog 35 36 numbers, and similar data, confirmed that specified criteria has been met, and acknowledges that the product, method, or information will function as 37 38 intended.

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# **SPECIAL PROVISIONS - Continued**

1 2 3	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.
4 5 6 7 8 9	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.
9 10 11 12 13 14	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.
16	1-06.7(2) Required Information
17 18 19	Each submittal shall be submitted within 10 working days after contract execution to the Engineer.
20 21	Shop drawings and submittals shall be submitted electronically and shall contain the following information for all items:
22	1. Project Name.
23	2. Contractor.
24	3. Engineer.
25	4. Owner.
26	5. Applicable specification and drawing reference.
27 28 29	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.
30	7. A blank space for the Engineer to place a 3-inch by 4-inch review stamp.
31	8. Dimensions and weights.
32	9. Catalog information.
33	10. Manufacturer's specifications.
34	11. Special handling instructions.

## **SPECIAL PROVISIONS - Continued**

transmitted to the Contractor no later than 15 working days after receipt the Engineer. The Contractor shall revise and resubmit previously reject submittals as necessary to obtain acceptance. Delays caused by the ne for resubmittal shall not be a basis for an extension of contract time or de damages. Two sets of shop drawings or one electronic response will returned to the Contractor after review.  17  1-06.7(4) Substitutions  Any product or construction method that does not meet these specification will be considered a substitution. Substitutions must be approved prior 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 Contractor Cowner will consider formal requests from Contractor for substitution product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed meth and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  In making a request for substitution, Contractor represents that he is personally investigated the proposed product or method and is determined that it is equal or superior to, in all respects, the prod specified. All substitutions shall be reviewed and approved by the Tribe product or specified. All substitutions shall be reviewed and acceptance by the Owr contractor shall coordinate installation of accepted substitutions into		
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 a transmitted to the Contractor no later than 15 working days after receipt the Engineer. The Contractor shall revise and resubmit previously reject submittals as necessary to obtain acceptance. Delays caused by the net for resubmittal shall not be a basis for an extension of contract time or de damages. Two sets of shop drawings or one electronic response will returned to the Contractor after review.  1-06.7(4) Substitutions  1-06.7(4) Substitutions  Any product or construction method that does not meet these specification will be considered a substitution. Substitutions must be approved prior 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 Contractor Owner will consider formal requests from Contractor for substitution product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed mether and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  In making a request for substitution, Contractor represents that he is personally investigated the proposed product or method and indetermined that it is equal or superior to, in all respects, the prod specified. All substitutions shall be reviewed and approved by the Tipe to incorporation into the project. Upon review and acceptance by the Own Contractor shall coordinate installation of accepted substitutions into	1	12. Maintenance requirements.
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 a transmitted to the Contractor no later than 15 working days after receipt the Engineer. The Contractor shall revise and resubmit previously reject submittals as necessary to obtain acceptance. Delays caused by the net for resubmittal shall not be a basis for an extension of contract time or de damages. Two sets of shop drawings or one electronic response will returned to the Contractor after review.  1-06.7(4) Substitutions  Any product or construction method that does not meet these specificatic will be considered a substitution. Substitutions must be approved prior 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 Contractor Owner will consider formal requests from Contractor for substitution product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed methods and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  In making a request for substitution, Contractor represents that he personally investigated the proposed product or method and fetermined that it is equal or superior to, in all respects, the prod specified. All substitutions shall be reviewed and approved by the Tribe product or incorporation into the project. Upon review and acceptance by the Owr Contractor shall coordinate installation of accepted substitutions into	2	13. Wiring and control diagrams.
16. Installation and Operating Instructions.  1-06.7(3) Review Schedule  Shop drawings and submittals will be reviewed as promptly as possible a transmitted to the Contractor no later than 15 working days after receipt the Engineer. The Contractor shall revise and resubmit previously reject submittals as necessary to obtain acceptance. Delays caused by the net for resubmittal shall not be a basis for an extension of contract time or de damages. Two sets of shop drawings or one electronic response will returned to the Contractor after review.  1-06.7(4) Substitutions  Any product or construction method that does not meet these specification will be considered a substitution. Substitutions must be approved prior 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 product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed methods and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  In making a request for substitution, Contractor represents that he personally investigated the proposed product or method and fetermined that it is equal or superior to, in all respects, the prod specified. All substitutions shall be reviewed and approved by the Tribe pto incorporation into the project. Upon review and acceptance by the Owr Contractor shall coordinate installation of accepted substitutions into	3	14. List of contract exceptions.
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Shop drawings and submittals will be reviewed as promptly as possible a transmitted to the Contractor no later than 15 working days after receipt the Engineer. The Contractor shall revise and resubmit previously reject submittals as necessary to obtain acceptance. Delays caused by the no for resubmittal shall not be a basis for an extension of contract time or de damages. Two sets of shop drawings or one electronic response will returned to the Contractor after review.  1-06.7(4) Substitutions  1-06.7(4) Substitutions  Any product or construction method that does not meet these specificatic will be considered a substitution. Substitutions must be approved prior 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 Contractor Owner will consider formal requests from Contractor for substitution product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed method and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  In making a request for substitution, Contractor represents that he is personally investigated the proposed product or method and determined that it is equal or superior to, in all respects, the prod specified. All substitutions shall be reviewed and approved by the Tribe product or shall coordinate installation of accepted substitutions into the project. Upon review and acceptance by the Owr Contractor shall coordinate installation of accepted substitutions into	8	1-06.7(3) Review Schedule
1-06.7(4) Substitutions  19 20 Any product or construction method that does not meet these specification will be considered a substitution. Substitutions must be approved prior installation or use on this project, as specified below.  23 24 1-06.7(4)A After Contract Execution  25 26 Within 10 working days after the date of the Notice of Award of Contractor Owner will consider formal requests from Contractor for substitution product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed method and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  28 39 30 31 32 32 33 34 34 35 35 36 36 37 38 38 39 39 39 39 30 30 30 30 31 31 32 31 32 32 33 34 34 35 36 36 37 38 38 39 39 39 30 30 30 31 31 32 32 33 34 35 36 36 37 38 38 39 39 39 30 30 30 30 30 31 31 32 32 33 34 35 36 36 37 38 38 39 39 30 30 30 30 30 31 31 32 32 33 34 35 36 36 37 38 38 39 39 30 30 30 30 30 31 31 32 31 32 32 33 34 35 36 36 37 38 38 39 39 30 30 30 30 30 30 30 30 30 30 31 31 32 32 33 34 35 36 37 38 38 39 39 30 30 30 30 30 30 30 30 30 30 30 30 30	10 11 12 13 14 15	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.
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Within 10 working days after the date of the Notice of Award of Contractor Owner will consider formal requests from Contractor for substitution product in place of those specified. Contractor shall submit two copies request for substitution. Data shall include the necessary change construction methods, including a detailed description of proposed method and related drawings illustrating methods. An itemized comparison proposed substitution with product or method shall be provided.  In making a request for substitution, Contractor represents that he is personally investigated the proposed product or method and is determined that it is equal or superior to, in all respects, the prod specified. All substitutions shall be reviewed and approved by the Tribe proposed incorporation into the project. Upon review and acceptance by the Own Contractor shall coordinate installation of accepted substitutions into	24	1-06.7(4)A After Contract Execution
In making a request for substitution, Contractor represents that he had personally investigated the proposed product or method and had determined that it is equal or superior to, in all respects, the product of specified. All substitutions shall be reviewed and approved by the Tribe product of incorporation into the project. Upon review and acceptance by the Own Contractor shall coordinate installation of accepted substitutions into	26 27 28 29 30 31 32	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.
40 work making changes that may be required for work to be complete	34 35 36 37 38 39	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

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1 Contractor waives all claims for additional costs related to substitutions that 2 consequently become apparent.

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#### 1-06.7(4)B Equivalent Materials

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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.

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15 16 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.

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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.

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Cost of all work under this section shall be included in the lump sum contract bid item of "Mobilization".

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#### 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

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#### 1-07.1 Laws to be Observed

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The first three paragraphs of Section 1-07.1 are revised to read:

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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.

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The Contractor shall be responsible to immediately report to the Engineer any deviation from the contract provisions pertaining to environmental

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Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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.

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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.

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Section 1-07.1 is supplemented with the following:

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#### **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.

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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/.

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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.

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BATTLE CREEK ROADS AND MISSION HILL ROAD

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 or NAOB other than the Prime Contractor or its affiliates. Should this situation arise, the

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

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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.
- 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 lowertier 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 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 Tribalowned 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,

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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.

  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

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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.

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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.

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c) Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers.

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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.

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## Materials or Supplies Purchased from a Tulalip Tribal Member NAOB or NAOB

40 With respect to materials or supplies purchased from a Tulalip Tribal 41 Member NAOB or NAOB who is neither a manufacturer nor a regular dealer, 42 the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges 43 for the delivery of materials or supplies required on a job site may be 44

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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

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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.

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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.

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### **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.

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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.

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#### 1-07.2 Sales Tax

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Section 1-07.2, including its sub-sections, in its entirety is revised to read:

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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.

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on a misunderstood tax liability.

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

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The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts.

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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.

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## 1-07.3 Fire Prevention and Merchantable Timber Requirements

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## 1-07.3(1) Fire Prevention Control and Countermeasures Plan

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Section 1-07.3(1) is revised to read:

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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.

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36 37 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

1 2	shall require his/her employees and those of any Subcontractor to work under forest officials in fire control efforts.
3 4	1-07.3(2) Merchantable Timber Requirements
5 6 7	Section 1-07.3(2) is revised to read:
8	(*****)
9	When merchantable timber is to be cut, the Contractor shall obtain a permit
10	from The Tulalip Tribes Forestry Department or the appropriate regional
11	office of the State Department of Natural Resources and comply fully with
12	the laws and regulations of The Tulalip Tribes and the State Forest
13	Practices Act, as applicable.
14	
15	No person may export from the United States, or sell, trade, exchange, or
16	otherwise convey to any other person for the purpose of export from the
17	United States, timber originating from the project.
18	
19	The Contractor shall comply with the Forest Resources Conservation and
20	Shortage Relief Amendments Act of 1993 (Public Law 103-45) and the
21	Washington State Log Export Regulations (WAC 240-15).
22	
23	1-07.5 Environmental Regulations
24	
25	This Section is supplemented with the following:
26 27	(September 20, 2010 WSDOT GSP, Option 1.)
28	Environmental Commitments
29	The following Provisions summarize the requirements, in addition to those
30	required elsewhere in the Contract, imposed upon the Contracting Agency
31	by the various documents referenced in the Special Provision PERMITS
32	AND LICENSES. Throughout the work, the Contractor shall comply with
33	the following requirements:
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35	(*****)
36	The intentional bypass of stormwater from all or any portion of a stormwater
37	treatment system is prohibited without the approval of the Engineer.
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39	No Contractor staging areas will be allowed within 100 feet of any waters of
40	the Tribe or State including wetlands.
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1 2	(August 3, 2009 WSDOT GSP, Option 2)  Payment
3 4 5 6	All costs to comply with this special provision for the environmenta 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.
7 8	1-07.5(1) General
9 10	The second paragraph of Section 1-07.5(1) is revised to read:
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12	(*****)
13 14 15 16 17 18	The Contractor shall be responsible to immediately report to the Engineer any deviation from the Contract provisions pertaining to environmenta 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.
19 20	Item 3 in the third paragraph of Section 1-07.5(1) is revised to read:
21	(*****)
22 23	3. No equipment shall enter waters of the Tribes or waters of the State, except as may be specified in the Contract.
24 25 26	1-07.5(2) State Department of Fish and Wildlife
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28 29	Delete the first paragraph of Section 1-07.5(2) and replace with:
30 31 32 33 34 35 36	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' Natura Resources Department for specific requirements in completing the Work or the reservation. In doing the Work located outside the boundaries of the Tulalip Tribes Reservation, the Contractor shall:
37	1-07.5(3) State Department of Ecology
38 39 40	The first paragraph of Section 1-07.5(3) is revised to read:
41	(*****)
42 43	In doing the Work located within the Tulalip Indian Reservation boundaries the Contractor shall follow the laws, ordinances, rules and regulations of the
44	Tulalip Tribes. Contractor shall consult with the Tulalip Tribes' Natura

1 2 3 4	the i	ources Department for specific requirements in completing the Work on reservation. In doing the Work located outside the boundaries of the lip Tribes Reservation, the Contractor shall:
5 6	Items 4 and	d 8 in the first paragraph of Section 1-07.5(3) are revised to read:
7	(*****)	
8	4.	Perform Work in such a manner that all materials and substances
9		not specifically identified in the Contract documents to be placed in
10		the water do not enter waters of the Tribes or waters of the State,
11		including wetlands. These include, but are not limited to, petroleum
12		products, hydraulic fluid, fresh concrete, concrete wastewater,
13		process wastewater, slurry materials, and waste from shaft drilling,
14		sediments, sediment-laden water, chemicals, paint, solvents, or
15		other toxic or deleterious materials.
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17	8.	Notify the Engineer and Ecology Department immediately should oil,
18		chemicals, or sewage spill into waters of the Tribes or waters of the
19		State.
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21	1-07.5(4) A	Air Quality
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23	i ne tirst pa	ragraph of Section 1-07.5(4) is revised to read:
24	(*****)	
25	\ /	Contractor shall comply with all rules of lead air pollution authorities. If
26 27		Contractor shall comply with all rules of local air pollution authorities. If are none, air-quality rules of the State Department of Ecology shall
28		ern the Work located outside the boundaries of the Tulalip Tribes
20 29	_	ervation. The Contractor shall consult with the Tulalip Tribes' Natural
30		ources Department to ascertain the applicable laws, ordinances, rules,
31		regulations governing the Work on the Tulalip Indian Reservation.
32	and	rogalations governing the work on the raidilp maidir resorvation.
33	1-07.6 Per	mit and Licenses
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35	Section 1-0	7.6 is supplemented with the following:
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37	(*****)	
38	The	Contractor shall obtain and maintain necessary Snohomish County

project.

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40 41 Traffic Control and Construction Permit(s) throughout the duration of the

1	1-07.7 Load Limits
2 3	(March 13, 1995 WSDOT GSP, Option 6)
4	This Section is supplemented with the following:
5 6 7 8	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
9 10 11	1-07.11 Requirements for Nondiscrimination
12 13	1-07.11(2) Contractual Requirements
14 15	1-07.11(2)A Equal Employment Opportunity (EEO) Responsibilities
16 17	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:
18 19	(*****)
20 21 22 23 24 25 26 27 28 29 30	4. Information and Reports – The Contractor shall provide all information and reports required by the Regulations or directives issued pursuan 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 or 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.
31 32 33 34 35	<ol> <li>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:</li> </ol>
36 37 38 39	<ul> <li>a. Withholding of payments to the Contractor under the Contractor complies, and/or;</li> <li>b. Cancellation, termination, or suspension of the Contract, in whole or in part.</li> </ul>
40 41 42 43 44	6. <b>Incorporation of Provisions</b> – 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

1 shall take such action with respect to any Subcontractor or procurement 2 as The Tulalip Tribes may direct as a means of enforcing such provisions including sanctions for noncompliance. 3 4 5 Provided, however, that in the event a Contractor becomes involved in. or is threatened with, litigation with a Subcontractor or supplier as a 6 7 result of such direction, the Contractor may request The Tulalip Tribes to enter into such litigation to protect the interest of The Tulalip Tribes. 8 9 10 1-07.11(10) Records and Reports 11 12 1-07.11(10)B Required Records and Retention 13

The first paragraph of Section 1-07.11(10)B is revised to read:

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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:

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#### **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.

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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.

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9 10 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:

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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.

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#### 1-07.14 Responsibility for Damage

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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.

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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.

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 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

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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.

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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.

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#### 1-07.15 Temporary Water Pollution Prevention

Section 1-07.15 is supplemented with the following:

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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.

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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.

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## 1-07.15(1) Spill Prevention, Control, and Countermeasures Plan

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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

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## 1-07.16(2) Vegetation Protection and Restoration

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Section 1-07.16(2) is supplemented with the following:

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## (August 2, 2010 WSDOT GSP, Option 1)

14 15 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.

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Vegetation and soil protection zones for shrubs shall extend out from the stems at ground level to twice the radius of the shrub.

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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.

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#### 1-07.17 Utilities and Similar Facilities

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Section 1-07.17 is supplemented with the following:

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## (April 2, 2007 WSDOT GSP Option 1)

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Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

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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:

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Telephone/Communication	Telephone/Communication
Verizon	Tulalip Technology Data Services
Tim Rennick	Travis Hall
OSP Engineering	8825 Quil Ceda Boulevard, Suite O
P.O. Box 1003	Tulalip, WA 98271
Everett, WA 98200	(360) 716-8008
(425) 327-8118	,

Telephone/Communication	Telephone/Communication
Tulalip Broadband	Frontier Communications
Richard Brown	Adam Diaz
8825 Quil Ceda Boulevard, Suite O	1800 41st Street
Tulalip, WA 98271	Everett, WA 98201
Office: (360) 716-3277	Office (425) 261-0134
Cell: (425) 754-033	Cell (425) 614-9754
Water	Power
Tulalip Utilities	Snohomish Co. Public Utilities District
Mike Leslie	(PUD)
3015 Mission Beach Rd	Kallen Shaughnessy-Randall
Tulalip, WA 98271	210 East Division Street
Office: (360) 716-4840	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. It is anticipated that utility adjustment, relocation, replacement or construction within the project limits will be completed as follows:

Snohomish County Public Utility District will connect power for the new illumination system and remove their existing facilities from the utility pole on 28th Avenue NW.

## 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.

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 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.

- 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

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2	monument:
3 4 5 6 7 8 9 10 11 12	<ul> <li>a. No further action.</li> <li>b. Potholing. If so directed by the Contracting Agency, the Contractor shall pothole the area using vacuum excavation methods.</li> <li>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".</li> </ul>
14 15	For methods a through c above, if the Contractor exhausts all other
16 17 18 19	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".
20 21 22 23	<b>Measurement</b> No specific unit of measurement shall apply to the lump sum item of locate existing utility structure or monument.
24 25	Measurement for "Pothole Existing Utility" will be per each.
26 27 28	<b>Payment</b> Payment will be made in accordance with Section 1-09.6 for the following bid item when included in the proposal:
29 30	"Locate Existing Utility Structure or Monument", per lump sum.
31 32 33 34 35 36 37 38 39	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.
40 41	"Pothole Existing Utility," per each.
42 43	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.

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## 1-07.17(2) Utility Construction, Removal, or Relocation by Others

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Delete this Section in its entirety and replace with the following:

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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.

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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.

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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

# **SPECIAL PROVISIONS - Continued**

1 2	when such conflicts occur and recognize and plan for the inherent inefficiencies and impaired production rates.		
3 4 5	Payment		
6 7 8 9	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.		
10 11	1-07.23 Public Convenience and Safety		
12 13	1-07.23(1) Construction Under Traffic		
14 15 16 17 18 19 20 21	(February 3, 2020 WSDOT GSP, Option 2)  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.		
22 23 24 25	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.		
26 27 28 29 30	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.		
31 32 33	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.		
34 35 36	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

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#### Minimum Work Zone Clear Zone Distance

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This Section is supplemented with the following:

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Lane closures are subject to the following restrictions:

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All streets within the Battle Creek neighborhood: 8:00 a.m. to 4:00 p.m.

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Access to the Tulalip Recovery Center shall be maintained at all times.

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The following special traffic requirements shall be adhered to during all phases of construction:

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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.

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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.

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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.

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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.

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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.

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Lane closures are not allowed on any of the following:

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> 1. A holiday,

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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.

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> 3. After 3:00 p.m. on the day prior to a holiday or holiday weekend.

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## 1-07.27 No Waiver of State's Legal Rights

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Section 1-07.27 including title is revised to read:

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# 1-07.27 No Waiver of The Tulalip Tribes' Legal Rights

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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

# **SPECIAL PROVISIONS - Continued**

1 2 3	waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.
4 5 6 7 8 9	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.
10 11	1-08 PROSECUTION AND PROGRESS
12 13 14	Add the following new section:
15 16 17	<b>1-08.0 Preliminary Matters</b> (May 25, 2006 APWA GSP)
17 18 19	<b>1-08.0(1) Preconstruction Conference</b> (October 10, 2008 APWA GSP)
20 21 22 23	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:
24	1. To review the initial progress schedule;
25 26	<ol><li>To establish a working understanding among the various parties associated or affected by the work;</li></ol>
27 28	<ol> <li>To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;</li> </ol>
29	4. To establish normal working hours for the work;
30	5. To review safety standards and traffic control; and
31	6. To discuss such other related items as may be pertinent to the work.
32 33	The Contractor shall prepare and submit at the preconstruction conference the following:
34	1. A breakdown of all lump sum items;
35	2. A preliminary schedule of working drawing submittals; and
36	3. A list of material sources for approval if applicable.

1 Add the following new section: 2 3 1-08.0(2) Hours of Work **New Section** 4 (December 8, 2014 APWA GSP) 5 6 Except in the case of emergency or unless otherwise approved by the 7 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 8 through Friday, exclusive of a lunch break. If the Contractor desires different 9 10 than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions 11 below. The working hours for the Contract shall be established at or prior 12 13 to the preconstruction conference. 14 15 All working hours and days are also subject to local permit and ordinance 16 conditions (such as noise ordinances). 17 18 If the Contractor wishes to deviate from the established working hours, the 19 Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. 20 21 Requests shall be submitted for review no later than *** 5 days *** prior to 22 the day(s) the Contractor is requesting to change the hours. 23 If the Contracting Agency approves such a deviation, such approval may be 24 25 subject to certain other conditions, which will be detailed in writing. For 26 example: 27 28 1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs 29 for Contracting Agency representatives who worked during such 30 31 times. (The Engineer may require designated representatives to be 32 present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey 33 34 crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party 35 consultants when, in the opinion of the Engineer, such work 36 37 necessitates their presence.) 38 39 2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time. 40

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 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.

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- 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.

Special Provisions

### 1-08.3 Progress Schedule

Section 1-08.3 is supplemented with the following:

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 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.

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The Contracting Agency will establish the weekly meeting times, dates and location with agreement from the Engineer and Contractor.

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Project meetings shall be held at a location designated by the Contracting Agency.

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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.

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Attendance: Contracting Agency, Engineer, Contractor's Project Manager, and Project Superintendent all as appropriate to address agenda topics for Major subcontractors and suppliers shall attend when requested by the Contracting Agency, Engineer, or Contractor.

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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.

enforcement to any contractor on the site concerning the safety of

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### Safety

All parties agree that they are responsible for compliance with all tribal, 37 38 local, and federal laws, regulations, and standards that pertain to safety, as 39 those laws, regulations, and standards apply to its employees. All parties recognize that the responsibility for employee safety rests with each 40 41 employer respectively. Each contractor (prime or sub) shall be responsible 42 for the safety of its own employees. The Contracting Agency accepts no responsibility for, nor will it provide any safety consultation, monitoring, or

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1 contractor's employees. Any safety equipment needed on the job, including 2 but not limited to, PPE, shall be furnished by each contractor for its 3 employees. 4 5 The Contracting Agency will regard safety on this project to be of the utmost importance. Under no conditions shall safety requirements be waived for 6 7 the sake of cost, schedule, or convenience. SAFETY MAY BE USED AS CRITERIA FOR APPROVAL OF PAY APPLICATIONS. Unsafe conditions. 8 9 lack of proper and/or untimely documentation and submittals, and lack of 10 adherence to safety rules and requirements will not be tolerated. 11 Each contractor, AS A MINIMUM, shall follow all tribal, local, and federal 12 13 laws regarding worker safety. This shall include all requirements of OSHA and referenced standards therein included. 14 15 16 The Contracting Agency may, at various times, request voluntary OSHA inspections. Each contractor shall immediately correct and respond to any 17 18 violations in writing to the Contracting Agency, and to the appropriate 19 agency. 20 21 Indiscriminate accumulations of debris, waste, or scrap in work areas will 22 not be permitted. (Areas must be designated for storage or disposal.) All 23 materials, tools, and equipment must be stored in an orderly manner in designated areas. 24 25 26 Safety Program 27 A. Contractor shall submit, within 10 days of Notice to Proceed, a copy of its company safety program including jobsite-specific safety plans. This 28 29 program shall incorporate all lower-tier subcontractor safety information or separate policies shall be submitted for all lower-tier subcontractors 30 31 used on the project. This safety policy shall conform to all OSHA requirements and shall include as follows: 32 33 B. A Hazard Communications Program, including site specific Materials 34 35 Safety Data Sheets (MSDS) for all chemicals used by Contractor and its 36 subcontractors. 37 1. Provisions for continual training of all on-site employees. This shall 38 be done by holding weekly safety toolbox talks, documented by 39 signed attendance sheets with safety topic submitted to the 40 Contracting Agency at each weekly project meeting.

Contractor.

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2. Weekly jobsite safety inspections shall be completed by each

Special Provisions

- 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.

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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

Special Provisions

### 1-09 MEASUREMENT AND PAYMENT

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**1-09.2(1)** General Requirements for Weighing Equipment (July 23, 2015 APWA GSP, Option 2)

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Revise item 4 of the fifth paragraph to read:

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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, <u>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.</u>

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### 1-09.6 Force Account

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(October 10, 2008 APWA GSP)

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Supplement this section with the following:

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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.

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### 1-09.7 Mobilization

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Section 1-09.7 is supplemented with the following:

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34 Payment for Mobilization will be made from two-thirds of the lump sum amount named in the Bid Schedule, which price shall be complete 35 compensation for all mobilization of employees, equipment and materials, 36 37 and preparation of all necessary submittals as well as the bonds, insurance, 38 site improvements etc. all in conformance with the Contract Documents. In calculating the partial payment due for mobilization, percent completion will 39 be based on the sum of completed work. Payment for Demobilization will 40 41 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 42 43 of all equipment, materials, labor hauling, cleanup, restoration work etc. required to remove all of the Contractor's operation and cleanup the site in 44

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accordance with the Contract Documents. In calculating the partial payment due for demobilization, percent completion will be based on the sum of completed work.

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### 1-09.8 Payment for Material on Hand

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The last paragraph of Section 1-09.8 is revised to read:

partial payment for it has been made.

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## (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

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## 1-09.9 Payments

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Revise the first paragraph to read:

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(*****)

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.

Progress payments for completed work will be based upon progress estimates prepared by the Contractor. A progress estimate cutoff date will

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Delete the third paragraph and replace it with the following:

be established at the preconstruction conference.

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Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

### SPECIAL PROVISIONS - Continued

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.

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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.

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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.

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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

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Section 1-09.11 is revised to read:

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## 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.

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## 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.

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### 1-10 TEMPORARY TRAFFIC CONTROL

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### 1-10.1 General

(*****)

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The first paragraph of Section 1-10.1 is revised as follows:

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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

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

1 2	Staging Plans shall be prepared by the Contractor or a licensed civil engineer. The traffic control plans as provided by the Contractor shall
3	include and not be limited to the following information:
4	Minimum lone widthe provided for vehicular travel
5 6	<ul> <li>Minimum lane widths provided for vehicular travel.</li> <li>Location, legend, and size for all signage.</li> </ul>
7	<ul> <li>Location, legend, and size for all signage.</li> <li>Location of flagger stations.</li> </ul>
8	<ul> <li>Lane closure tapers.</li> </ul>
9	<ul> <li>Identification and spacing for traffic control devices.</li> </ul>
10	<ul> <li>Identification of pedestrian access routes.</li> </ul>
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12	The Contractor shall provide flaggers, signs, and other traffic control
13	devices not otherwise specified as being furnished by the Contracting
14	Agency. The Contractor shall erect and maintain all construction signs,
15	warning signs, detour signs, and other traffic control devices necessary to
16	warn and protect the public at all times from injury or damage as a result of
17	the Contractor's operations which may occur on highways, roads, streets,
18	sidewalks, or paths. No work shall be done on or adjacent to any traveled
19	way until all necessary signs and traffic control devices are in place.
20	
21	Construction Staging Plans as provided by the Contractor shall separate
22	the project into stages of construction that when completed will include all
23	of the work included in the contract. Construction Staging Plans shall
24	include and not be limited to the following information:
25	
26	Delineation of areas where work will occur in each stage.
27	Delineation including lane widths for vehicular travel lanes that will
28	be maintained during each stage of construction.
29	<ul> <li>A description of the work that will be completed within each stage.</li> </ul>
30 31	<ul> <li>Location(s) for access to and from the work area(s).</li> </ul>
32	1-10.2(1) General
33	1-10.2(1) General
34	(January 3, 2017 WSDOT GSP, Option 1)
35	Only training with WSDOT TCS card and WSDOT training curriculum is
36	recognized in the State of Washington. The Traffic Control Supervisor shall
37	be certified by one of the following:
38	The Northwest Laborers-Employers Training Trust
39	27055 Ohio Ave.
40	Kingston, WA 98346
41	(360) 297-3035
42	

1 2 3	Evergreen Safety Council 12545 135th Ave. NE Kirkland, WA 98034-8709
4 5	1-800-521-0778
6 7	The American Traffic Safety Services Association 15 Riverside Parkway, Suite 100
8	Fredericksburg, Virginia 22406-1022
9	Training Dept. Toll Free (877) 642-4637
10	Phone: (540) 368-1701
11 12	1-10.2(2) Traffic Control Plans
13 14 15	The first sentence of Section 1-10.2(2) is replaced with the following:
16	(*****)
17	Traffic control plans and Construction Staging Plans have not been provided
18	by the Owner. The Contractor shall prepare traffic control plans and
19	Construction Staging Plans. Traffic control plans and Construction Staging
20	Plans shall be prepared based on the requirements set forth in
21	Sections 1-07.23 and 1-10.1 of these Special Provisions. Preparation of the
22	Traffic Control Plan and Construction Staging Plans shall be included in
23 24	other items of work contained in the proposal.
25 26	1-10.4 Measurement
27 28	1-10.4(1) Lump Sum Bid for Project (No Unit Items)
29 30	Section 1-10.4(1) is supplemented with the following:
31	(*****)
32	The bid Proposal contains the lump sum bid item "Project Temporary Traffic
33	Control". The provisions of Section 1-10.4(1) apply.
34	
35	1-10.5 Payment
36 37	1-10.5(1) Lump Sum Bid for Project (No Unit Items)
38	1-10.3(1) Lump Sum Blu for Project (No Offic Items)
39	Section 1-10.5(1) is supplemented with the following:
40	
41	(*****)
42	The lump sum bid for "Project Temporary Traffic Control", shall also include
43	all costs associated with preparing and receiving approval for the Traffic
44	Control Plans and Construction Staging Plans, including all revisions and

Special Provisions

## **SPECIAL PROVISIONS - Continued**

1	updates necessary throughout the duration of the project. The lump sum
2	cost also includes all payment for obtaining and maintaining traffic control
3	permits.

4 END OF DIVISION 1

1	DIVISION 2
2 3	EARTHWORK
4	2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP
5 6	2-01.1 Description
7 8	(*****)
9	Section 2-01.1 is supplemented with the following:
11 12 13	Clearing and grubbing on this project shall be performed to the limits shown on the Plans:
14 15 16 17	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.
19 20 21 22 23	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.
24 25 26 27 28 29	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.
30 31 32	Miscellaneous small items requiring removal have not been shown on the Plans
33 34	2-01.4 Measurement
35 36 37	Section 2-01.4 shall be replaced with the following:
38 39 40 41 42	(******)  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".

1 2	No specific unit of measurement will apply to the lump sum item of "Clearing and Grubbing".
3 4 5	2-01.5 Payment
5 6 7	Section 2-01.5 shall be supplemented with the following:
8 9	(*****) "Clearing and Grubbing", per lump sum.
10 11 12 13 14 15	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.
16 17	2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS
17 18 19	2-02.3 Construction Requirements
20 21	Section 2-02.3 is supplemented with the following:
22 23 24 25	(******)  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.
26 27	2-02.5 Payment
28 29	Section 2-02.5 is supplemented with the following:
30 31 32 33	(*****) "Removing Drainage Structure," per each.
34 35 36 37	The unit contract price bid per each for "Removing 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, wastehauling, and any and all dump fees.
38 39	"Removing Storm Sewer Pipe", per linear foot.
40 41 42 43 44	The unit contract price bid per linear foot for "Removing Storm Sewer Pipe" shall be full compensation for all labor, tools, equipment, and incidentals required to perform the work, to include, but not limited to, removing, loading, wastehauling, and any and all dump fees.

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#### 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.

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## 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 unvielding condition, or to the depth determined by the Engineer, and included in the Unsuitable Foundation Excavation, including Haul bid item. Where overexcavation 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.

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> 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.

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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.

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All material placed below pavement areas should be considered structural 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.

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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:

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Pavement Subgrades (upper 2 feet): 95 Percent Pavement Subgrades (below 2 feet): 90 Percent

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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,

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1 2 3	hauling, placing, and compacting the material specified to replace the unsuitable material including geotextile for separation.
3 4	2-04 HAUL
5	
6	2-04.5 Payment
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8	Section 2-04.5 is supplemented with the following:
9	
10	(*****)
11	All costs associated with hauling materials of any description to, from, and
12	within the project site shall be included in the appropriate unit bid prices in
13	the Proposal and no further compensation will be paid.
14	
15	2-07 WATERING
16	0.07.0. Oswatowatian Danwinsonanta
17	2-07.3 Construction Requirements
18 19	Section 2-07.3 is supplemented with the following:
20	Section 2-07.5 is supplemented with the following.
21	(*****)
22	During construction, the Contractor shall have dedicated to the project, a
23	suitable water truck that shall be operated as necessary to control dust.
24	Failure to have a water truck immediately accessible to the job, and failure
25	to use said water truck for dust control, shall be adequate reason to "shut
26	down" the project construction. Such shutdown is herein agreed to upon
27	submitting a Bid for this project. Shutdowns due to the Contractor's failure
28	to control dust shall not be considered as unworkable days.
29	
30	The Contractor shall make necessary arrangements and shall bear the
31	costs for water necessary for the performance of the work.
32	
33	Water placement includes that required for dust control while excavating for
34	the installation of the utilities, for processing and compacting the subgrade,
35	and for dust control between the time of subgrade preparation and the
36 37	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
31	Linguineer of the Project mapector and for additive period of time as he deems

necessary.

38

1	2-07.5 Payment
2 3	Section 2-07.5 is replaced with the following:
4 5	(*****)
6 7	No additional payment shall be made for watering. All costs incurred for this item shall be included in the other related bid items.
8 9 10	2-09 STRUCTURE EXCAVATION
11 12	2-09.3 Construction Requirements
13 14	Section 2-09.3 is supplemented with the following:
15 16 17	(******) Shoring shall be constructed with provisions made to allow the Inspector to enter the shored trench at any time.
18 19 20	2-09.3(1) General Requirements
21 22	Section 2-09.3(1) is supplemented with the following:
23 24 25 26 27	(******)  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."
28 29 30 31 32 33 34	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.
35 36 37	2-09.3(1)D Disposal of Excavated Material
38 39	Section 2-09.3(1)D is supplemented with the following:
40 41 42	(******) All unsuitable material removed as structure excavation shall be disposed of offsite at a legal disposal site.
43	

1	2-11 TRIMMING AND CLEANUP
2 3	2-11.1 Description
4 5	Section 2-11.1 is supplemented with the following:
6	goden z min is supplied that the remediately
7	(*****)
8	During construction, and then upon completion of the work, the Contractor
9	shall thoroughly comb and search the surrounding area and remove any
10	construction material thrown or discarded amongst the trees, bushes,
11	ditches, etc., such as paint cans, cartons, broken pipe, pavement pieces,
12	paper, bottles, etc., and shall tidy up the surrounding general area to make
13	it neat in appearance, including removal of debris that may or may not have
14	been deposited by Contractor's operation.
15	
16	Paved street surfaces, existing and new, shall be thoroughly cleaned (street
17	sweeper) upon completion of work within the area, and shall require daily
18	cleaning if dust or mud exists. Prior to job acceptance, all streets shall be
19	cleaned.
20	
21	Prior to final inspection, remove from the job site, all tools, surplus materials,
22	equipment, scrap, debris, and waste.
23	2.44 5. Doumant
24 25	2-11.5 Payment
26	Section 2-11.5 is supplemented with the following:
27	occuon 2-11.0 is supplemented with the following.
28	(*****)
29	No separate payment will be made for trimming and cleanup, but instead
30	will be included in the lump sum item for "Removal of Structures and
31	Obstructions".
32	END OF DIVISION 2

#### 1 **DIVISION 5** 2 3 SURFACE TREATMENTS AND PAVEMENTS 5-04 HOT MIX ASPHALT 4 5 (July 18, 2018 APWA GSP) 6 7 Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the 8 following: 9 10 5-04.1 Description 11 12 This Work shall consist of providing and placing one or more layers of plantmixed hot mix asphalt (HMA) on a prepared foundation or base in 13 accordance with these Specifications and the lines, grades, thicknesses, 14 and typical cross-sections shown in the Plans. The manufacture of HMA 15 16 may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical 17 additives, and foaming. 18 19 20 HMA shall be composed of asphalt binder and mineral materials as may 21 be required, mixed in the proportions specified to provide a homogeneous, 22 stable, and workable mixture. 23 24 5-04.2 Materials 25 26 Materials shall meet the requirements of the following sections: 27 9-02.1(4) 28 Asphalt Binder 29 Cationic Emulsified Asphalt 9-02.1(6) **Anti-Stripping Additive** 9-02.4 30 31 **HMA Additive** 9-02.5 32 Aggregates 9-03.8 33 Recycled Asphalt Pavement 9-03.8(3)B Mineral Filler 9-03.8(5) 34 Recycled Material 9-03.21 35 9-01 **Portland Cement** 36 9-03.1(2) 37 Sand 38 (As noted in 5-04.3(5)C for crack 39 sealing) Joint Sealant 9-04.2 40

Foam Backer Rod

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9-04.2(3)A

1 2 3 4 5 6 7	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.
8 9 10 11 12	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.
13 14 15 16 17 18	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.
20 21 22	The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.
23 24 25 26 27	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.
28 29 30 31	Production of aggregates shall comply with the requirements of Section 3-01.
32 33 34 35	Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.
36 37	5-04.2(1) How to Get an HMA Mix Design on the QPL
38 39 40	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).
41 42 43	5-04.2(1)A Vacant

1 2	5-04.2(2) Mix Design – Obtaining Project Approval
3 4 5	No paving shall begin prior to the approval of the mix design by the Engineer.
6 7 8	<b>Nonstatistical</b> evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.
9 10 11 12 13 14 15 16 17	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.
19 20 21 22	<b>Nonstatistical Mix Design</b> . 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;
23 24 25	<ul> <li>The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.</li> </ul>
26 27 28 29	<ul> <li>The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp &amp; sig-nature) of a valid licensed Washington State Professional Engineer.</li> </ul>
30 31 32	<ul> <li>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.</li> </ul>
33 34 35 36 37 38 39	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.
40 41 42	Mix designs for HMA accepted by Nonstatistical evaluation shall;
43 44	<ul> <li>Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and</li> </ul>

1 2	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	
3 4	9-03.8(6).	
5	<ul> <li>Have anti-strip requirements, if any, for the proposed mix design</li> </ul>	
6	determined in accordance with AASHTO T 283 or T 324, or based	
7	on historic anti-strip and aggregate source compatibility from	
8	previous WSDOT lab testing.	
9 10	At the discretion of the Engineer, agencies may accept verified mix designs	
11	older than 12 months from the original verification date with a certification	
12	from the Contractor that the materials and sources are the same as those	
13	shown on the original mix design.	
14	and the congress that congress the congress that	
15	Commercial Evaluation Approval of a mix design for "Commercial	
16	Evaluation" will be based on a review of the Contractor's submittal of	
17	WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation	
18	is not required) or a Mix Design from the current WSDOT QPL or from one	
19	of the processes allowed by this section. Testing of the HMA by the	
20	Contracting Agency for mix design approval is not required.	
21	For the Did Itary Commencial LIMA the Contractor shall colort a class of	
22	For the Bid Item Commercial HMA, the Contractor shall select a class of	
23 24	HMA and design level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.	
2 <del>4</del> 25	ioi tile required use.	
26	5-04.2(2)B Using Warm Mix Asphalt Processes	
27	o o n=(=)= comg traini mix repnare recocce	
28	The Contractor may elect to use additives that reduce the optimum mixing	
29	temperature or serve as a compaction aid for producing HMA. Additives	
30	include organic additives, chemical additives and foaming processes. The	
31	use of Additives is subject to the following:	
32		
33	Do not use additives that reduce the mixing temperature more than	
34	allowed in Section 5-04.3(6) in the production of mixtures.	
35	Defens weign additions obtain the Euripeads annual wine	
36	Before using additives, obtain the Engineer's approval using  WSDOT Form 350,076 to describe the proposed additive and  The proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive and the proposed additive additive and the proposed additive addi	
37 38	WSDOT Form 350-076 to describe the proposed additive and process.	
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### 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

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Contract.

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## 5-04.3(3) **Equipment**

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5-04.3(3)A Mixing Plant

8 9 Plants used for the preparation of HMA shall conform to the following requirements:

included in the unit Contract prices for the various Bid items involved in the

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**Equipment for Preparation of Asphalt Binder** – Tanks for the 1. 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.

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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.

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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.

40 41 42

1	4.	Sampling and Testing of Mineral Materials – The HMA plant shall
2		be equipped with a mechanical sampler for the sampling of the
3		mineral materials. The mechanical sampler shall meet the
4		requirements of Section 1-05.6 for the crushing and screening
5		operation. The Contractor shall provide for the setup and operation
6		of the field testing facilities of the Contracting Agency as provided for
7		in Section 3-01.2(2).
8		• •
9	5.	Sampling HMA – The HMA plant shall provide for sampling HMA by
10		one of the following methods:
4.4		-

A mechanical sampling device attached to the HMA plant. a.

13 14

b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

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## 5-04.3(3)B Hauling Equipment

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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.

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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.

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## 5-04.3(3)C Pavers

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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.

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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.

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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.

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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.

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The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

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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.

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## 5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

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A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless other-wise required by the contract.

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1	\//b o	re on MTDA/ is required by the centreet, the Engineer may approve			
2		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			
4	will determine if an equitable adjustment in cost or time is due.				
5	10/1				
6 7		When used, the MTD/V shall mix the HMA after delivery by the hauling			
8	equipment and prior to laydown by the paving machine. Mixing of the HM, shall be sufficient to obtain a uniform temperature throughout the mixture.				
9	a windrow elevator is used, the length of the windrow may be limited in				
10	urba	urban areas or through intersections, at the discretion of the Engineer.			
11 12	Tob	To be approved for use on MTV.			
12 13	10 0	e approved for use, an MTV:			
14	1.	Shall be self-propelled vehicle, separate from the hauling vehicle or			
15		paver.			
16	0				
17 18	2.	Shall not be connected to the hauling vehicle or paver.			
19	3.	May accept HMA directly from the haul vehicle or pick up HMA from			
20		a windrow.			
21					
22 23	4.	Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.			
23 24		to placement into the paving machine.			
25	5.	Shall mix the HMA sufficiently to obtain a uniform temperature			
26		throughout the mixture.			
27 28	To b	e approved for use, an MTD:			
20 29	10 0	e approved for use, an in in.			
30	1.	Shall be positively connected to the paver.			
31					
32	2.	May accept HMA directly from the haul vehicle or pick up HMA from			
33 34		a windrow.			
35	3.	Shall mix the HMA after delivery by the hauling equipment and prior			
36		to placement into the paving machine.			
37	4				
38 39	4.	Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.			
40		anoughout the mixture.			
41	5-04	.3(3)E Rollers			
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13 14		ers shall be of the steel wheel, vibratory, oscilatory, or pneumatic tire , in good condition and capable of reversing without backlash.			
1 T	type	, in good condition and capable of leveloning without backlash.			

Special Provisions

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

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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

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BATTLE CREEK ROADS AND MISSION HILL ROAD

1 2 3	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.
4 5	In areas where HMA will be placed, use sand slurry to fill the cracks.
6 7	In areas where HMA will not be placed, fill the cracks as follows:
8 9	1. Cracks 1/4 inch to 1 inch in width – fill with hot poured sealant.
10 11	2. Cracks greater than 1 inch in width – fill with sand slurry.
12 13 14 15 16 17 18 19 20 21 22 23 24 25	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.
26 27	5-04.3(4)A2 Crack Sealing Areas Prior to Paving
28 29	In areas where HMA will be placed, use sand slurry to fill the cracks.
30 31	5-04.3(4)A3 Crack Sealing Areas Not to be Paved
32 33	In areas where HMA will not be placed, fill the cracks as follows:
34 35	A. Cracks 1/4 inch to 1 inch in width - fill with hot poured sealant.
36	B. Cracks greater than 1 inch in width – fill with sand slurry.
37 38 39	5-04.3(4)B Vacant
40 41	5-04.3(4)C Pavement Repair
42 43 44	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

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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:

1	HMA Class 1"	0.35 feet
2	HMA Class ¾" and HMA Class ½"	
3	wearing course	0.30 feet
4	other courses	0.35 feet
5	HMA Class ⅔"	0.15 feet
6		
7	On areas where irregularities or unavoid	lable obstacles make the use of
8	mechanical spreading and finishing equip	ment impractical, the paving may
9	be done with other equipment or by hand.	
10		
11	When more than one JMF is being utilize	ed to produce HMA, the material
12	produced for each JMF shall be place	ed by separate spreading and
13	compacting equipment. The intermingling	
14	one JMF is prohibited. Each strip of HMA	A placed during a work shift shall
15	conform to a single JMF established for the	he class of HMA specified unless
16	there is a need to make an adjustment in	the JMF.
17		
18	5-04.3(8) Aggregate Acceptance Prior	to Incorporation in HMA
19		
20	For HMA accepted by nonstatistical evalu	33 3
21	sand equivalent, uncompacted void conte	
22	in accordance with Section 3-04. Sampl	
23	HMA accepted by commercial evaluation	on will be at the option of the
24	Engineer.	
25		
26	5-04.3(9) HMA Mixture Acceptance	
27		
28	Acceptance of HMA shall be as provided u	nder nonstatistical, or commercial
29	evaluation.	
30		
31	Nonstatistical evaluation will be used for	the acceptance of HMA unless
32	Commercial Evaluation is specified.	
33		
34	Commercial evaluation will be used for	
35	classes of HMA in the following application	• •
36	ditches, slopes, paths, trails, gores, pre	• • •
37	pavement repair. Other nonstructural ap	
38	commercial evaluation shall be as approve	ed by the Engineer. Sampling and
$\alpha \alpha$	********* **	

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39

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

testing of HMA accepted by commercial evaluation will be at the option of

the Engineer.

Special Provisions

 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

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1	change produces material of equal or better quality and may require
2	the development of a new mix design if the adjustment exceeds the
3	amounts listed below.
4	
5	a. <b>Aggregates</b> –2 percent for the aggregate passing the 1½",
6	1", ¾", ½", ¾", and the No. 4 sieves, 1 percent for aggregate
7	passing the No. 8 sieve, and 0.5 percent for the aggregate
8	passing the No. 200 sieve. The adjusted JMF shall be within
9	the range of the control points in Section 9-03.8(6).
10	
11	b. <b>Asphalt Binder Con</b> tent – The Engineer may order or
12	approve changes to asphalt binder content. The maximum
13	adjustment from the approved mix design for the asphalt
14	binder content shall be 0.3 percent
15	= 0.4.0/0\ A. V/
16	5-04.3(9)A Vacant
17	F. 0.4.0(0) D. Warrand
18	5-04.3(9)B Vacant
19	F.O.4.2/O.O. Minture Assentance Negatatistical Fusions
20	5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation
21	LIMA misture which is accepted by Nonetatistical Evaluation will be
22	HMA mixture which is accepted by Nonstatistical Evaluation will be
23	evaluated by the Contracting Agency by dividing the HMA tonnage into lots.
24 25	5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots
26 26	3-04.3(3)01 Milkture Noristatistical Evaluation – Lots and Subiots
27	A lot is represented by randomly selected samples of the same mix design
28	that will be tested for acceptance. A lot is defined as the total quantity of
29	material or work produced for each Job Mix Formula placed. Only one lot
30	per JMF is expected. A sublot shall be equal to one day's production or
31	800 tons, whichever is less except that the final sublot will be a minimum of
32	400 tons and may be increased to 1200 tons.
33	Too tene and may be increased to 1200 tener
34	All of the test results obtained from the acceptance samples from a given
35	lot shall be evaluated collectively. If the Contractor requests a change to the
36	JMF that is approved, the material produced after the change will be
37	evaluated on the basis of the new JMF for the remaining sublots in the
38	current lot and for acceptance of subsequent lots. For a lot in progress with
39	a CPF less than 0.75, a new lot will begin at the Contractor's request after
40	the Engineer is satisfied that material conforming to the Specifications can
41	be produced.
12	
43	Sampling and testing for evaluation shall be performed on the frequency of
14	one sample per sublot.

1	
2	5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling
3	
4	Samples for acceptance testing shall be obtained by the Contractor when
5	ordered by the Engineer. The Contractor shall sample the HMA mixture in
6	the presence of the Engineer and in accordance with AASH-TO T 168. A
7	minimum of three samples should be taken for each class of HMA placed
8	on a project. If used in a structural application, at least one of the three
9	samples shall to be tested.
10	
11	Sampling and testing HMA in a Structural application where quantities are
12	less than 400 tons is at the discretion of the Engineer.
13	
14	For HMA used in a structural application and with a total project quantity
15	less than 800 tons but more than 400 tons, a minimum of one acceptance
16	test shall be performed. In all cases, a minimum of 3 samples will be
17	obtained at the point of acceptance, a minimum of one of the three samples
18	will be tested for conformance to the JMF:
19	
20	<ul> <li>If the test results are found to be within specification requirements,</li> </ul>
21	additional testing will be at the Engineer's discretion.
22	
23	<ul> <li>If test results are found not to be within specification requirements,</li> </ul>
24	additional testing of the remaining samples to determine a
25	Composite Pay Factor (CPF) shall be performed.
26	
27	5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing
28	
29	Testing of HMA for compliance of Va will at the option of the Contracting
30	Agency. If tested, compliance of Va will use WSDOT SOP 731.
31	
32	Testing for compliance of asphalt binder content will be by WSDOT FOP for
33	AASHTO T 308.
34	
35	Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.
36	
37	5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors
38	
39	For each lot of material falling outside the tolerance limits in 5-04.3(9), the
40	Contracting Agency will determine a Composite Pay Factor (CPF) using the
41	following price adjustment factors:
12	

Table of Price Adjustment Factors			
Constituent	Factor "f"		
All aggregate passing: 1½", 1", ¾", ½",	2		
¾″ and No. 4 sieves			
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

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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.

3

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.

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7

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.

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11

12 13

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.

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19

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.

20 21 22

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.

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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.

32 33 34

35

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.

36 37 38

#### **Test Results**

39 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 40 41 compaction lot with a CPF below 1.00 and thus subject to a price reduction 42 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 44

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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

The sublot locations within each density lot will be determine Engineer. For a lot in progress with a CPF less than 0.75, a ne begin at the Contractor's request after the Engineer is satisfied tha	lots
5-04.3(10)D1 HMA Nonstatistical Compaction – Lots and Sub HMA compaction which is accepted by nonstatistical evaluation based on acceptance testing performed by the Contracting Agency the project into compaction lots.  A lot is represented by randomly selected samples of the same my that will be tested for acceptance. A lot is defined as the total quaterial or work produced for each Job Mix Formula placed. On per JMF is expected. A sublot shall be equal to one day's production tons, whichever is less except that the final sublot will be a minimulation tons and may be increased to 800 tons. Testing for compaction the rate of 5 tests per sublot per WSDOT T 738.  The sublot locations within each density lot will be determine Engineer. For a lot in progress with a CPF less than 0.75, a need to begin at the Contractor's request after the Engineer is satisfied than	lots
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Engineer. For a lot in progress with a CPF less than 0.75, a ne begin at the Contractor's request after the Engineer is satisfied tha	
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HMA mixture accepted by commercial evaluation and HMA co	
under conditions other than those listed above shall be compacted to be a seen as in the seen as the seen as in	
basis of a test point evaluation of the compaction train. The t	
evaluation shall be performed in accordance with instructions	
Engineer. The number of passes with an approved compact required to attain the maximum test point density, shall be use	
29 subsequent paving.	su on an
30	
HMA for preleveling shall be thoroughly compacted. HMA that is	s used to
prelevel wheel ruts shall be compacted with a pneumatic tire roll	
otherwise approved by the Engineer.	or arricoo
34	
5-04.3(10)D2 HMA Compaction Nonstatistical Evalu	ation –
Acceptance Testing	uti011
37	
The location of the HMA compaction acceptance tests will be	randomly
selected by the Engineer from within each sublot, with one test pe	•
10	
5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustr	nents
12	
For each compaction lot with one or two sublots, having all sublot relative density that is 92 percent of the reference maximum de	

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

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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

1	When either the PFi for any constituent or the CPF of a lot in progress is less than 0.75.
2 3	less than 0.75.
3 4 5	5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)
6 7	An entire lot with a CPF of less than 0.75 will be rejected.
8 9	5-04.3(12) Joints
10 11	5-04.3(12)A HMA Joints
12 13	5-04.3(12)A1 Transverse Joints
14	The Contractor shall conduct operations such that the placing of the top or
15	wearing course is a continuous operation or as close to continuous as
16	possible. Unscheduled transverse joints will be allowed and the roller may
17	pass over the unprotected end of the freshly laid mixture only when the
18	placement of the course must be discontinued for such a length of time that
19	the mixture will cool below compaction temperature. When the Work is
20	resumed, the previously compacted mixture shall be cut back to produce a
21	slightly beveled edge for the full thickness of the course.
22	
23	A temporary wedge of HMA constructed on a 20H:1V shall be constructed
24	where a transverse joint as a result of paving or planing is open to traffic.
25	The HMA in the temporary wedge shall be separated from the permanent
26	HMA by strips of heavy wrapping paper or other methods approved by the
27	Engineer. The wrapping paper shall be removed and the joint trimmed to a
28	slightly beveled edge for the full thickness of the course prior to resumption
29	of paving.
30	<del>-</del>
31	The material that is cut away shall be wasted and new mix shall be laid
32	against the cut. Rollers or tamping irons shall be used to seal the joint.
33	
34	5-04.3(12)A2 Longitudinal Joints
35	
36	The longitudinal joint in any one course shall be offset from the course
37	immediately below by not more than 6 inches nor less than 2 inches. All
38	longitudinal joints constructed in the wearing course shall be located at a
39	lane line or an edge line of the Traveled Way. A notched wedge joint shall
40	be constructed along all longitudinal joints in the wearing surface of new
41	HMA unless otherwise approved by the Engineer. The notched wedge joint
42	shall have a vertical edge of not less than the maximum aggregate size or
43	more than ½ of the compacted lift thickness and then taper down on a slope

1 2 3	not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.				
4 5	5-04.3(12)B Bridge Paving Joint Seals				
6 7	5-04.3(12)B1 HMA Sawcut and Seal				
8 9 10 11 12	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.				
14 15 16	Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.				
17 18 19 20 21	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.				
22 23	5-04.3(12)B2 Paved Panel Joint Seal				
<ul><li>24</li><li>25</li><li>26</li><li>27</li></ul>	Construct the paved panel joint seal in accordance with the requirements specified in Section 5-04.3(12)B1 and the following requirement:				
28 29 30 31	<ol> <li>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.</li> </ol>				
32 33	5-04.3(13) Surface Smoothness				
34 35 36 37 38 39 40 41	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 $\frac{1}{8}$ 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 $\frac{1}{4}$ inch in 10 feet from the rate of transverse slope shown in the Plans.				

1 2 3	from	deviations in excess of the above tolerances are found that result high place in the HMA, the pavement surface shall be corrected by the following methods:
4 5 6 7	1.	Removal of material from high places by grinding with an approved grinding machine, or
8	2.	Removal and replacement of the wearing course of HMA, or
9 10 11	3.	By other method approved by the Engineer.
12 13 14		tion of defects shall be carried out until there are no deviations ere greater than the allowable tolerances.
15 16	the H	ons in excess of the above tolerances that result from a low place in IA and deviations resulting from a high place where corrective action,
17 18 19	accep	opinion of the Engineer, will not produce satisfactory results will be ed with a price adjustment. The Engineer shall deduct from monies that may become due to the Contractor the sum of \$500.00 for each
20 21	and e	very section of single traffic lane 100 feet in length in which any ive deviations described above are found.
22 23		utility appurtenances such as manhole covers and valve boxes are
24 25	the fi	I in the traveled way, the utility appurtenances shall be adjusted to shed grade prior to paving. This requirement may be waived when
26 27 28	adjus	ted by the Contractor, at the discretion of the Engineer or when the nent details provided in the project plan or specifications call for utility enance adjustments after the completion of paving.
29 30	,	appurtenance adjustment discussions will be included in the Pre-
31 32		planning (5-04.3(14)B3). Submit a written request to waive this ment to the Engineer prior to the start of paving.
33 34 35	5-04.	(14) Planing (Milling) Bituminous Pavement
36 37 38	meeti	anning plan must be approved by the Engineer and a pre planning must be held prior to the start of any planing. See n 5-04.3(14)B2 for information on planning submittals.
39 40 41	Locat	ons of existing surfacing to be planed are as shown in the Drawings.
42 43		planing an existing pavement is specified in the Contract, the ctor must remove existing surfacing material and to reshape the

1 2	surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.
3 4 5	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.
6 7 8 9 10 11	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.
13 14 15	Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.
16 17 18 19 20 21	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.
22 23 24 25 26	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.
27 28 29	After planing is complete, planed surfaces must be swept, cleaned, and it required by the Contract, patched and preleveled.
30 31 32 33 34	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.
35	5-04.3(14)A Pre-Planing Metal Detection Check
36 37 38 39 40	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.
41 42 43	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:

#### 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.

1 2		d.	Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as
3 4			determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
5		_	Allow your composted LIMA combat to cool to combine
6 7		e.	Allow new compacted HMA asphalt to cool to ambient
<i>7</i> 8			temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been
9			obtained from the Engineer.
10			obtained nom the Engineer.
11	2.	Temr	porary centerline marking, post-paving temporary marking,
12	۷.		porary stop bars, and maintaining temporary pavement marking
13		•	comply with Section 8-23.
14			comply man economic zon
15	3.	Perm	nanent pavement marking must comply with Section 8-22.
16			σ τη το το σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ
17	5-04	.3(14)B	32 Submittals – Planing Plan and HMA Paving Plan
18		` ,	
19	The	Contrac	ctor must submit a separate planing plan and a separate paving
20	plan	to the E	Engineer at least 5 Working Days in advance of each operation's
21	activ	ity star	t date. These plans must show how the moving operation and
22	traffi	c contro	ol are coordinated, as they will be discussed at the pre-planing
23	brief	ing and	d pre-paving briefing. When requested by the Engineer, the
24			must provide each operation's traffic control plan on 24 x 36 inch
25		_	ize Shop Drawings with a scale showing both the area of
26	•		nd sufficient detail of traffic beyond the area of operation where
27			c may be required. The scale on the Shop Drawings is 1 inch =
28	20 feet, which may be changed if the Engineer agrees sufficient detail is		
29	shov	vn.	
30			
31			operation and the paving operation include, but are not limited
32			etection, removal of asphalt and temporary asphalt of any kind,
33			and drying, staging of supply trucks, paving trains, rolling,
34	sche	duling,	and as may be discussed at the briefing.
35	147		
36			sections will be partially or totally blocked, provide adequately
37			oticeable signage alerting traffic of closures to come, a minimum
38		_	Days in advance. The traffic control plan must show where peace
39			be stationed when signalization is or may be, countermanded,
40	and	snow a	reas where flaggers are proposed.
41	Λ1	!!	
42	At a	mınımu	ım, the planing and the paving plan must include:

1 2 3 4 5 6 7 8	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.
9	2.	A copy of each intersection's traffic control plan.
10 11 12 13 14 15	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.
16 17	4.	Names and locations of HMA Supplier facilities to be used.
18 19	5.	List of all equipment to be used for paving.
20 21 22	6.	List of personnel and associated job classification assigned to each piece of paving equipment.
23 24 25 26 27 28 29 30	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.
31 32 33 34	8.	Names, job titles, and contact information for field, office, and plant supervisory personnel.
35 36	9.	A copy of the approved Mix Designs.
37 38	10.	Tonnage of HMA to be placed each day.
39	11.	Approximate times and days for starting and ending daily operations.
40 41 42	5-04.	3(14)B3 Pre-Paving and Pre-Planing Briefing
42 43 44		ast 2 Working Days before the first paving operation and the first ng operation, or as scheduled by the Engineer for future paving and

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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.

In intersections, how to break up the intersection, and address b. 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.

of d. Notifications Contractor activities. required and coordinating with other entities and the public as necessary.

- Description of the sequencing of installation and types of e. 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

40 41

Description of procedures and equipment to identify hidden g. metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.

1 2 3		h.	Description of how flaggers will be coordinated with the planing, paving, and related operations.
5 4 5 6		i.	Description of sequencing of traffic controls for the process of rigid pavement base repairs.
7 8		j.	Other items the Engineer deems necessary to address.
9	2.	Pavino	g – additional topics:
11 12		a.	When to start applying tack and coordinating with paving.
13 14 15 16 17 18		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.
20 21 22 23 24 25		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.
26 27 28 29		d.	Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.
30 31 32		e.	Number of sublots to be placed, sequencing of density testing, and other sampling and testing.
33 34 35	5-04.3	s(15) S	sealing Pavement Surfaces
36 37 38 39	accord	dance	seal where shown in the plans. Construct the fog seal in with Section 5-02.3. Unless otherwise approved by the ply the fog seal prior to opening to traffic.
40 41	5-04.3	3(16) H	IMA Road Approaches
42 43 44	or wh	ere st	ches shall be constructed at the locations shown in the Plans aked by the Engineer. The Work shall be performed in with Section 5-04.

1	
2	5-04.4 Measurement
3	
4	HMA CI PG, HMA for CI PG, and Commercial HMA
5	will be measured by the ton in accordance with Section 1-09.2, with no
6	deduction being made for the weight of asphalt binder, mineral filler, or any
7	other component of the mixture. If the Contractor elects to remove and
8	replace mix as allowed by Section 5-04.3(11), the material removed will not
9	be measured.
10	
11	Roadway cores will be measured per each for the number of cores taken.
12	
13	Preparation of untreated roadway will be measured by the mile once along
14	the centerline of the main line Roadway. No additional measurement will be
15	made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or
16	Shoulders. Measurement will be to the nearest 0.01 mile.
17	
18	Soil residual herbicide will be measured by the mile for the stated width to
19	the nearest 0.01 mile or by the square yard, whichever is designated in the
20	Proposal.
21	
22	Pavement repair excavation will be measured by the square yard of surface
23	marked prior to excavation.
24	A calculation and a calculation of the state
25	Asphalt for prime coat will be measured by the ton in accordance with
26	Section 1-09.2.
27	Drives and against will be recogned by the subject and truck recognite
28	Prime coat aggregate will be measured by the cubic yard, truck measure,
29	or by the ton, whichever is designated in the Proposal.
30	Applied for for good will be managered by the top of provided in
31	Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.
32	Section 5-02.4.
33	Langitudinal joint scale between the HMA and coment concrete nevernent
34	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
35	, , , , , , , , , , , , , , , , , , , ,
36 37	joint seal.
	Planing bituminous pavement will be measured by the square yard.
38 39	Flaming bituminous pavement will be measured by the square yard.
	Temporary payement marking will be measured by the linear foot as
40 41	Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.
+ 1 12	provided in occitor 0-20.4.
+2 43	Water will be measured by the M gallon as provided in Section 2-07.4.
+3 14	water will be incasared by the in gallon as provided in Section 2-07.4.
1 T	

1 2	5-04.5 Payment
3 4 5	Payment will be made for each of the following Bid items that are included in the Proposal:
6 7	"HMA CI PG", per ton.
8 9	"HMA for Approach Cl PG", per ton.
10 11	"HMA for Preleveling Cl PG", per ton.
12 13	"HMA for Pavement Repair Cl PG", per ton.
14 15	"Commercial HMA", per ton.
16 17 18	(******) Section 5-04.5 of the July 18, 2018 APWA GSP is revised to read as follows:
19 20 21 22 23	The unit Contract price per ton for "HMA CI 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.
24 25 26	(July 18, 2018 APWA GSP)
27 28	"Preparation of Untreated Roadway", per mile.
29 30 31 32 33 34 35 36 37	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 CI 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.
38 39	"Preparation of Existing Paved Surfaces", per mile.
40 41 42 43 44	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 CI PG" which was used for patching. If the Proposal does not include a

1 2 3	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.
4 5 6	"Crack Sealing", by force account.
7 8	"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
9 10	Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the total Bid by the Contractor.
11	
12 13	"Pavement Repair Excavation Incl. Haul", per square yard.
14	The unit Contract price per square yard for "Pavement Repair Excavation
15	Incl. Haul" shall be full payment for all costs incurred to perform the Work
16	described in Section 5-04.3(4) with the exception, however, that all costs
17	involved in the placement of HMA shall be included in the unit Contract price
18	per ton for "HMA for Pavement Repair Cl PG", per ton.
19	
20	"Asphalt for Prime Coat", per ton.
21	
22	The unit Contract price per ton for "Asphalt for Prime Coat" shall be full
23 24	payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).
25	
26	"Prime Coat Agg.", per cubic yard, or per ton.
27	The sumit O autor at unit and a sum of a "Driver O at A sum" about
28 29	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
30 31	deposit and spreading the aggregate in the quantities required by the Engineer.
32	Engineer.
33	"Asphalt for Fog Seal", per ton.
34	Aspiral for Fog Scal , per ton.
35	Payment for "Asphalt for Fog Seal" is described in Section 5-02.5.
36	r ayment for Asphalt for rog ocal is described in occitor 3-02.5.
37	"Longitudinal Joint Seal", per linear foot.
38	Longitudinal John Ocal , per lineal loot.
39	The unit Contract price per linear foot for "Longitudinal Joint Seal" shall be
40	full payment for all costs incurred to perform the Work described in
41	Section 5-04.3(12).
42	3000011 0-04.0( 12 j.
43	"Planing Bituminous Pavement", per square yard.
44	. is.iii.g Bitailiiiload i avoilloitt, poi oqualo yala.

1 2	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
3	Section 5-04.3(14).
4 5	"Temporary Pavement Marking", per linear foot.
6 7 8	Payment for "Temporary Pavement Marking" is described in Section 8-23.5.
9 10	"Water", per M gallon.
11 12	Payment for "Water" is described in Section 2-07.5.
13 14	"Job Mix Compliance Price Adjustment", by calculation.
15 16	"Job Mix Compliance Price Adjustment" will be calculated and paid for as described in Section 5-04.3(9)C6.
17 18 19	"Compaction Price Adjustment", by calculation.
20 21	"Compaction Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)D3.
22 23 24	"Roadway Core", per each.
25 26 27	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.
28 29 30	"Cyclic Density Price Adjustment", by calculation.
31 32	"Cyclic Density Price Adjustment" will be calculated and paid for as described in Section 5-04.3(10)B.
33 34	(******)
35 36	Section 5-04.5 of the July 18, 2018 APWA GSP is supplemented read as follows:
37 38	"Speed Hump", per each.
39 40 41 42	The unit Contract price per each for "Speed Hump", shall be full compensation for all costs, including the HMA, pavement grinding, tack coat, and installation and removal of flags on the warning signs as noted on the Plans.

43

**END OF DIVISION 5** 

1	DIVISION 7
2 3 4	DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS
5	7-04 STORM SEWERS
6 7	7-04.2 Materials
8 9 10	Delete the sixth paragraph under this Section and replace it with the following:
11 12 13	(******) The Contractor shall provide the diameter and type of pipe specified on the Plans.
15 16	Ductile iron storm sewer pipe shall meet the requirements of Section 9-30.1(1).
17 18 19	7-04.5 Payment
20 21	(******)  " Storm Sewer Pipe In. Diam.", per linear foot.
22 23 24 25 26 27 28	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, compaction, and cleanup as shown in the Plans.
30 31	7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS
32 33	7-05.1 Description
34 35	This section is supplemented with the following:
36 37 38 39	(******)  The Work described in this section also includes adjusting sanitary sewer manholes and catch basins to grade per the Plans and these Specifications.

#### 1 7-05.3 Construction Requirements 2 3 7-05.3(1) Adjusting Manholes and Catch Basins to Grade 4 5 This section is deleted and replaced with the following: 6 (*****) 7 Where shown in the Plans or where directed by the Engineer, the Contractor 8 shall adjust manholes and catch basins to be flush with the finished grade 9 10 using precast concrete adjustment rings matching the existing structure, as shown in the Plans. The Contractor shall complete the adjustment of new 11 and existing utility structures in paved areas within 5 working days after the 12 13 pavement is completed. 14 15 The asphalt concrete pavement shall be cut and removed to a neat circle, 16 the diameter of which shall equal the outside diameter of the manhole frame 17 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 18 19 complete the adjustment. Excavations in excess of 8 inches below finished grade shall be backfilled with crushed surfacing top course compacted to a 20 21 minimum of 95% density. Starting at 8 inches below finished grade, Class 22 3000 cement concrete shall be placed to fill the entire volume of the 23 excavation up to within a minimum of 2 inches, and a maximum of 3 inches of the finished pavement surface. 24 25 26 The concrete, the edges of the asphalt concrete pavement, and the outer 27 edge of the casting shall be painted with hot asphalt cement. Asphalt 28 concrete shall then be placed and compacted with hand tampers and a 29 patching roller. 30 31 The completed patch shall match the finished grade for uniformity of grade. 32 The joint between the patch and the pavement shall then be painted with 33 hot asphalt cement or asphalt emulsion and shall be immediately covered with dry paving sand before the asphalt cement solidifies. 34 35 36 Surrounding surfaces that are damaged during construction shall be restored by the Contractor. 37

38 39

paid separately under other items within the Proposal.

Installation of vaned grates and solid covers on existing structures shall be

1	7-05.4 Measurement
2 3	This section is supplemented with the following:
4	(*****)
5 6 7 8 9	No separate measurement will be made for sawcutting, excavation, wastehaul, 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".
11 12 13 14	Remove Grate and Replace With will be measured per each. No separate measurement will be made for wastehauling the existing grate, which shall be included in the unit Contract price for "Remove Grate and Replace With".
15 16	7-05.5 Payment
17 18	The first paragraph is supplemented with the following:
19 20	(*****)
21 22 23 24 25 26 27	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, wastehaul, 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.
28 29	"Remove Grate and Replace With", per each.
30 31 32 33 34	The unit contract price per each for "Remove Grate and Replace With" shall include all costs to remove and haul to waste the existing grate and furnish and install a vaned grate or solid cover per the Plans.
35 36	7-12 VALVES FOR WATER MAINS
37	7-12.1 Description
38 39 40	Section 7-12.1 is supplemented with the following:
41 42 43 44	(******) Work shall also include adjusting valve boxes to grade per the Plans and these Specifications.

#### 1 7-12.3 Construction Requirements 2 3 Add the following new section: 4 5 **New Section** 6 7-12.3(2) Adjust Valve Box 7 Where "Adjust Valve Box" is shown in the Plans or where directed by the 8 Engineer, valve boxes shall be adjusted to the existing road grade or 9 existing surface grade and centered on the operator nut. The existing box 10 and cover shall be reset in a careful and workmanlike manner to conform to 11 the finished grade. Special care shall be exercised in all operations. Any 12 13 damage occurring to the existing utility due the Contractor's operations, shall be repaired at the Contractor's own expense. All covers and boxes 14 shall be thoroughly cleaned. Existing material excavated to facilitate valve 15 16 box adjustment shall be disposed of at a permitted, approved disposal site. Backfill shall be crushed surfacing top course compacted to 95% minimum 17 dry density. All valves being adjusted in the roadway shall be done 18 19 according to the detail in the Plans. If valves are not set in paved area, a 4-20 inch thick 2-foot square concrete pad shall be set around each valve box 21 with the top of pad flush with the existing grade. 22 23 7-12.4 Measurement 24 25 Section 7-12.4 is supplemented with the following: 26 (*****) 27 28 No measurement will be made for excavation of material, backfill, concrete 29 collars, asphalt patching, or surface repair. These items will be included with each adjusted structure. 30 31 32 The item "Adjust Valve Box" will be measured per each. 33 7-12.5 Payment 34 35 36 Section 7-12.5 is supplemented with the following: 37 (*****) 38 39 "Adjust Valve Box", per each. 40 41 The unit Contract price per each for "Adjust Valve Box" shall be full pay for all costs associated with excavating, waste haul of existing material; 42 crushed surfacing top course backfill; cleaning existing valve box, adjusting 43

44

the valve chamber to finished grade; asphalt patches; concrete collars; and

1 2 3	surface restoration. All surfaces and/or structures damaged outside of the patch area specified area in 7-12.3(2) during construction shall be restored in kind at no additional cost to the Contracting Agency.
4 5	7-14 HYDRANTS
6 7	7-14.1 Description
8 9	Section 7-14.1 is supplemented with the following:
10	
11 12 13 14 15 16 17	(******) This Work shall include removing the existing hydrants as identified on the Plans, furnishing and installing fire hydrant assemblies, and connecting to the existing hydrant lateral per the Plans and these Specifications. The construction requirements shall be in accordance with WSDOT Standard Specification 7-14.3.
18	7-14.4 Measurement
19 20	Section 7-14.4 is supplemented with the following:
21	/*****\
<ul><li>22</li><li>23</li><li>24</li><li>25</li></ul>	(******) The item "Remove and Replace Hydrant Assembly" will be measured per each.
26 27 28	No measurement will be made for excavation of material, backfill, or surface repair. These items will be included with each removed and replaced hydrant assembly.
29 30	7-14.5 Payment
31 32	Section 7-14.5 is supplemented with the following:
33	(*******)
34 35 36	(******)  "Remove and Replace Hydrant Assembly," per each.
37 38 39 40 41 42 43	The unit contract price per each for "Remove and Replace Hydrant Assembly" shall full pay for all costs associated with excavating, waste haul of existing material; crushed surfacing top course backfill; cleaning and connecting to the existing hydrant lateral, furnishing and installing the hydrant assembly; including all costs for concrete blocks and painting required for the complete installation of the hydrant assembly and surface restoration. All surfaces and/or structures damaged during construction shall be restored in kind at no additional cost to the Contracting Agency.

1	
1 2	7-15 SERVICE CONNECTIONS
3	7-15.1 Description
5 6	Section 7-15.1 is supplemented with the following:
7 8 9 10 11	(******) This Work shall include adjusting the existing water meter box to finishe grade per the Plans and these Specifications.
12	7-15.3 Construction Requirements
13 14	Add the following new section:
15 16 17	(******) 7-15.3(2) Adjust Water Meter Box New Section
18 19 20 21 22 23 24 25 26 27 28 29	Where "Adjust Water Meter Box" is shown in the Plans or where directed be the Engineer, the Contractor shall adjust the existing meter box to finished grade and centered on the meter. The existing box and cover shall be reserved in a careful and workmanlike manner to conform to the finished grade. Special care shall be exercised in all operations. Any damage occurring to the existing utility due the Contractor's operations, shall be repaired at the Contractor's own expense. All covers and boxes shall be thoroughly cleaned. Existing material excavated to facilitate meter box adjustment shall be disposed of at a permitted, approved disposal site. Backfill shall be crushed surfacing top course compacted to 95% minimum dry density.
30 31	7-15.4 Measurement
32 33	Section 7-15.4 is supplemented with the following:
34 35 36	(******) The item "Adjust Water Meter Box" will be measured per each.
37 38	No measurement will be made for excavation of material, backfill, or surfactive repair. These items will be included with each adjusted water meter box.

1	7-15.5 Payment
2	
3	Section 7-15.5 is supplemented with the following:
4	
5	(*****)
6	"Adjust Water Meter Box," per each.
7	
8	The unit contract price per each for "Adjust Water Meter Box" shall full pay
9	for all costs associated with excavating, waste haul of existing material;
10	crushed surfacing top course backfill; cleaning existing water meter box,
11	adjusting to finished grade; asphalt patches; concrete collars; and surface
12	restoration. All surfaces and/or structures damaged outside of the patch
13	area specified area in 7-12.3(2) during construction shall be restored in kind
14	at no additional cost to the Contracting Agency.
15	END OF DIVISION 7
	END OF DIVISION /
16	

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1	DIVISION 8
2	MISCELLANEOUS CONSTRUCTION
4	8-01 EROSION CONTROL AND WATER POLLUTION CONTROL
5 6	8-01.1 Description
7	o o i i i bocomption
8	Section 8-01.1 is supplemented with the following:
9	
10	(*****)
11 12 13	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
14 15	Stormwater General Permit from the Contracting Agency to the Contractor documenting, and testing stormwater discharge.
16 17	8-01.3 Construction Requirements
1 <i>7</i> 18	0-01.5 Construction Requirements
19	8-01.3(1) General
20	
21	Section 8-01.3(1) is supplemented with the following:
22 23	(*****)
23 24	The Contractor shall bear sole responsibility for damage to completed
25	portions of the project and to property located off the project caused by
26	erosion, siltation, runoff, or other related items during the construction of the
27	project. The Contractor shall also bear sole responsibility for any pollution
28	of rivers, streams, groundwater, or other water that may occur as a result of
29	construction operations.
30	
31	Any area not covered with established, stable vegetation where no further
32	work is anticipated for a period of 15 days shall be immediately stabilized
33	with the approved erosion and sedimentation control methods (e.g.
34	seeding and mulching, straw, plastic sheet). Where seeding for temporary
35	erosion control is required, fast germinating grasses shall be applied at ar
36	appropriate rate (e.g., perennial rye applied at approximately 80 pounds per
37	acre).
38	At no time shall more than 1 feet of addiment he allowed to accumulate
39 40	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
+0 41	at a time designated by the Project Construction Inspector. The cleaning
12	operation shall not flush sediment-laden water into the downstream system.
13	The cleaning shall be conducted using an approved vacuum truck capable

1 2 3	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.
4 5	Erosion control materials shall be installed prior to the start of any other work on the Project.
6 7 8 9 10 11	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.
12 13 14 15 16 17 18 19	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.
20 21 22	The Contractor shall prepare and submit a Stormwater Pollution Prevention Plan, in conformance with EPA requirements, to the Contracting Agency before any Work begins.
23 24	8-01.3(1)A Submittals
25 26 27	Section 8-01.3(1)A is supplemented with the following:
28 29 30 31 32 33 34	(******)  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.
35 36	8-01.3(2) Temporary Seeding and Mulching
37 38	8-01.3(2)B Temporary Seeding
39 40	Section 8-01.3(2)B is supplemented with the following:
41 42 43 44	(******) Seed of the following composition, proportion, and quality shall be applied at a rate of 200 pounds per acre on areas requiring temporary seeding:

1	Kind and Variety of	Pounds of Pure Live Seed
2	Seed in Mixture	(PLS) Per Acre
3	0	00
4 5	Creeping Red Fescue Perennial Ryegrass	80 80
6	Highland Colonial Bentgrass	20
7	White Dutch Clover	<u>20</u>
8	Total	200
9		
10	(*****)	
11	0 (6)	
12	Sufficient quantities of 18-6-12 fertilize	
13 14	acre, 72 percent of nitrogen applied isobutylidene diurea (IBDU), cyclo-d	•
15	polyurethane coated source with a min	
16	remainder may be derived from any so	
17	,	
18	The fertilizer formulation and applica	tion rate shall be approved by the
19	Engineer before use.	
20	9 04 2/0) Codiment Control Borriors	
21 22	8-01.3(9) Sediment Control Barriers	
23	8-01.3(9)D Inlet Protection	
24 25	Section 8-01.3(9)D is supplemented with the	following:
26 27	(*****)	
28	All catch basins grates within the pro	iect limits and adjacent areas shall
29	have inlet protection installed to preven	
30	storm system. The inlet protection sha	
31	prevent plugging. This sediment shal	
32	hauled to waste whenever it present	•
33	problem or concern to the Tribes. Any	•
34 35	failure to keep the erosion materials Contractor alone.	maintained shall be borne by the
36	Contractor alone.	
37	Add the following new section:	
38	ŭ	
39	(*****)	
40	8-01.3(17) Trench Dewatering	New Section
41	All "Normal Transh Davistarias"	rk consisted with maintaining
42 43	All "Normal Trench Dewatering" wor excavation or trench suitable for cons	<del>_</del>
43 44	price of the utility being installed. "Norn	

dewatering methods occurring in or directly adjacent to the trench, including trash pumps, sump pumps, or other methods in the excavated areas.

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# **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.

12 13 14

15 16

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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.

18 19

### 8-01.4 Measurement

20 21

Section 8-01.4 is replaced with the following:

23 24 25

22

(*****)

No specific unit of measurement shall apply to the lump sum item "Erosion" Control and Water Pollution Prevention".

26 27 28

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.

30 31 32

33 34

29

# 8-01.5 Payment

(*****)

Section 8-01.5 is replaced with the following:

35 36 37

38

(*****)

"Erosion Control and Water Pollution Prevention", lump sum.

39 40

41

42

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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:

Tulalip Tribes Project Nos.: 2021-101-A and 2021-101-B

BATTLE CREEK ROADS AND MISSION HILL ROAD

Special Provisions

1 2 3	Loam shall be as defined by the US Department of Agriculture Soil Classification System.
5 5 6 7 8	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.
9 10	The *** fine *** Compost shall conform to the requirements of Section 9-14.4(8).
11 12 13	8-02.3(4) Topsoil
14 15	Section 8-02.3(4) is supplemented with the following:
16	(*****)
17	The costs of removing all excess material and debris shall be included with
18 19	the Project and as such merged in the various items bid.
20 21 22 23 24	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.
25 26	8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation
27 28	8-02.3(5)A Seeding Area Preparation
29 30	Section 8-02.3(5)A is supplemented with the following:
31	(*****)
32 33	Finished grades of seeding areas shall allow for soil preparation and mulch. Finished grades shall be as follows:
34 35 36	Seeding Areas: 1 inch below all walks, curbs, and/or hard-surface edges.
37 38 39 40 41	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:
42 43 44	1. Maximum 2:1 slope, unless otherwise indicated.

1	<ol><li>Smooth and round off surfaces at abrupt grade changes.</li></ol>
2 3 4	<ol><li>Feather grades to meet existing gradually. Rake planting areas smooth and remove surface rocks over 2-inches diameter.</li></ol>
5 6 7 8 9	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.
10 11 12	Finish grades shall be inspected and accepted by the Tribes prior to commencing planting or seeding work.
13 14 15 16	The costs of removing all excess material and debris shall be included with the Project and as such merged in the various items bid.
17	Final Acceptance
18 19 20 21 22	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.
23	8-02.3(9) Seeding, Fertilizing, and Mulching
24 25 26	8-02.3(9)B Seeding and Fertilizing
27 28	Section 8-02.3(9)B is supplemented with the following:
29 30 31 32	(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:
33 34 35 36 37 38 39 40 41	Kind and Variety of Seed in Mixture (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
42 43	Identified seed shall meet or exceed Washington State Department of Agriculture Certified Seed Standards and be from within the appropriate

1 2 3	genetic zones of the *** Puget Lowland *** Ecoregion(s) as defined by the US Environmental Protection Agency (EPA).
4 5	The seed certification class shall be Certified (blue tag) in accordance with WAC 16-302 and meet the following requirements:
6	DI-:L:4I-WI-00/
7	Prohibited Weed 0% max.
8	Noxious Weed 0% max.
9 10	Other Weed 0.20% max. Other Crop 0.40% max.
11	Other Crop 0.40 % max.
11 12	The Contractor shall document all Source Identified seed by providing the
13	Association of Official Seed Certifying Agents (AOSCA) yellow seed label
14	for each species in the mix. Site Identification Logs can be supplied for
15	collections where the AOSCA yellow label is not available.
16	·
17	8-02.3(13) Plant Establishment
18	
19	Section 8-02.3(13) is supplemented with the following:
20	
21	(January 5, 2015 WSDOT GSP)
22	Subsequent year plant establishment periods shall begin immediately at the
23	completion of the preceding year's plant establishment period. Each
24	subsequent year plant establishment period shall be 1 full calendar year
25	in duration.
26 27	During the plant establishment period(s) after first year plant establishment,
2 <i>1</i> 28	the Contractor shall perform all Work necessary for the continued healthy
20 29	and vigorous growth of all plant material as directed by the Engineer.
30	and vigorous growin or all plant material as directed by the Engineer.
31	8-02.4 Measurement
32	
33	Section 8-02.4 is supplemented with the following:
34	
35	(January 5, 2015 WSDOT GSP, Option 1)
36	Topsoil will be measured by the square yard along the grade and slope of
37	the area covered after application.
38	
39	(*****)
40	When the Bid Proposal contains the item "Roadside Restoration" there will
41	be no measurement of unit items for Work defined in Section 8-02.
12	
13	No specific unit of measurement will apply to the lump sum item of
14	"Roadside Restoration".

1 2	8-02.5 Payment
3	0-02.5 Fayinent
4 5	Section 8-02.5 is supplemented with the following:
6	(*****)
7 8	"Topsoil Type A", per square yard.
9 10	The unit Contract price per square yard for "Topsoil Type A" shall be full payment for all costs for the specified Work.
11 12	Section 8-02.5 is revised to read:
13 14	(*****)
15 16	"Roadside Restoration", lump sum.
17 18 19	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.
20 21	8-04 CURBS, GUTTERS, AND SPILLWAYS
22 23 24	8-04.3 Construction Requirements
25 26	Section 8-04.3 is supplemented with the following:
27	(*****)
28 29 30	New curb and gutter will not be placed until forms have been checked and approved for line, grade, and compaction by the Construction Inspector.
31 32	The curb and gutter shall be protected against damage or defacement of any kind until it has been accepted by the Construction Inspector.
33 34 35	8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways
36 37	Section 8-04.3(1) is supplemented with the following:
38	(*****)
39 40 41 42	Cement concrete rolled curb and gutter shall be constructed with air entrained concrete Class 3000 conforming to the requirements of Section 6-02. The minimum compressive strength shall be achieved in 3 days.
43	

1	8-04.4 Measurement
2 3	Section 8-04.4 is supplemented with the following:
4	e season o o mana sappromonate a manage
5	(*****)
6	Cement Conc. Rolled Curb and Gutter shall be measured per linear foot
7	along the line and slope of the completed gutters, including bends.
8	Measurement of cement concrete rolled curb and gutter, when constructed
9	across driveways or sidewalk ramps, will include the width of the driveway
10	or sidewalk ramp.
11	
12	8-04.5 Payment
13	
14	Section 8-04.5 is supplemented with the following:
15	
16	(*****)
17 18	"Cement Conc. Rolled Curb and Gutter", per linear foot.
19	No separate payment shall be made for reinforcement in curb and gutters
20	as shown on the Plans. Curb and gutter reinforcement shall be included in
21	the bid items specified.
22	·
23	No separate payment shall be made for traffic curb end sections or curb
24	transitions as shown on the Plans. The end sections and transitions shall
25	be included in the "Cement Conc. Traffic Curb and Gutter" bid item.
26	
27	8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES
28	
29	8-06.1 Description
30	Operation 0.00 A in assemblement advisible than fall assignment
31	Section 8-06.1 is supplemented with the following:
32 33	(*****)
34	This work consists of constructing cement concrete driveways in
35	accordance with the Standard Plans and in details shown in the Contract
36	Plans and in conformity to the lines and grades shown in the Contract Plans
37	or as established by the Engineer.
38	

#### 1 8-06.3 Construction Requirements 2 3 Section 8-06.3 is supplemented with the following: 4 5 6 Driveways shall not be poured until forms have been set and approved by 7 the Engineer. 8 9 Contractor is responsible for constructing driveway ramps to the slopes and 10 tolerances as shown in the Standard Plans. Approval of the forms by the Engineer does not mean that the finished driveway and associated ramps 11 are accepted by the Contracting Agency. If the finished driveway and 12 13 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 14 15 slopes and tolerances as shown in the Contract Plans and Standard Plans 16 at no cost to the Contracting Agency. 17 18 8-06.4 Measurement 19 20 Section 8-06.4 is supplemented with the following: 21 22 (*****) 23 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 24 25 entrance, including the sloped transition portion between the entrances and 26 the adjacent sidewalk on each side. 27 28 8-06.5 Payment 29 Section 8-06.5 is supplemented with the following: 30 31 (*****) 32 "Cement Conc. Driveway Entrance," per square yard. 33 34 The unit contract price per square yard for "Cement Conc. Driveway 35 Entrance" shall be full compensation for all labor, tools, equipment, 36 materials, and incidentals required to perform the work as specified 37 including, but not limited to, forming, joint material, furnishing and installing 38 39 the concrete, finishing, protecting the work, temporary steel plating, and

be paid only once per driveway.

40 41

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material testing, regardless of entrance type. Payment for each item shall

1	8-13 MONUMENT CASES
2 3	8-13.1 Description
4 5	Section 8-13.1 is supplemented with the following:
6 7 8 9	(******) This work shall also consist of adjusting existing monument case and covers to grade in accordance with the Plans and these Specifications.
10 11 12	8-13.4 Measurement
13 14	Section 8-13.4 is supplemented with the following:
15 16 17	(******)  Measurement of Adjust Monument Case and Cover will be per each unit adjusted to final grade.
18 19 20	8-13.5 Payment
21 22	Section 8-13.5 is supplemented with the following:
23 24	(*****) "Adjust Monument Case and Cover", per each.
25 26 27 28	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.
29 30	8-14 CEMENT CONCRETE SIDEWALKS
31 32 33	8-14.3 Construction Requirements
34 35	Section 8-14.3 is supplemented with the following:
35 36 37	(******) Any sidewalk damaged, defaced, cracked, chipped, or determined to be of
38 39 40 41 42 43	poor workmanship, in the opinion of the Contracting Agency, shall be removed, wastehauled, 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 restri	icted use of the	se facilities, etc.	This notice	must be
provided 1 week	prior and again 1	day prior to the w	ork being pe	rformed.

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.

# 8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, INTELLIGENT TRANSPORTATION SYSTEMS, AND ELECTRICAL

# 8-20.1 Description

Section 8-20.1 is supplemented with the following:

(*****)

Unless otherwise noted, the locations of poles, junction boxes, and appurtenances as shown on the Plans are approximate, and exact locations are to be determined in the field to minimize interference with other structures.

The work includes, but shall not be limited to, the following:

- 1. Trenching and backfill
- 2. Connection to existing electrical service pedestal
- 3. Foundations

7. Luminaires

- 4. Direct bury pole5. Junction boxes
- 6. Conduit and wire

BATTLE CREEK ROADS AND MISSION HILL ROAD

1	8-20.2 Materials
2	8-20.2(1) Equipment List and Drawings
4 5	Section 8-20.2(1) is supplemented with the following:
6 7 8 9	(******)  The Contractor shall provide catalog cuts for the following items: wood poles, light standards, junction boxes, conduit and fittings, splice kits, wire and cable conductors, fused disconnects, and fuses.
11 12	8-20.3 Construction Requirements
13 14	8-20.3(5) Conduit
15 16 17	8-20.3(5)B Conduit Type
17 18 19	Section 8-20.3(5)B is supplemented with the following:
20 21 22	(******) Unless otherwise specified on the Plans, all conduit shall be Schedule 80 PVC.
23 24 25	8-20.3(8) Wiring
26 27	Section 8-20.3(8) is supplemented with the following:
28 29 30 31	(******)  No splices shall be allowed in the luminaire circuit wiring. All connections shall be made at terminal locations, at the fused quick disconnects, or at a junction box.
32 33 34 35	8-20.3(10) Service, Transformer, and Intelligent Transportation System (ITS) Cabinets
36 37	Section 8-20.3(10) is supplemented with the following:
38 39 40 41 42	(******)  The Contractor shall have the illumination system inspected by the Department of Labor and Industry and coordinate with Snohomish County PUD to have the service connected.
42 43 44 45 46	Power for the new illumination system will be provided from the existing service pedestal. The Contractor shall coordinate with Snohomish County PUD to have the service connected.

Special Provisions

1 The work also includes removal and wastehaul of the existing utility pole 2 and coordination efforts with Tulalip Broadband to move their facilities to the 3 new pole. 4 8-20.4 Measurement 5 6 7 Section 8-20.4 is supplemented with the following: 8 9 10 Measurement for "Junction Box" shall be per each. 11 12 Measurement for "Utility Pole for Tulalip Broadband", shall be per each. 13 14 Coordination of electrical permits and electrical inspections and any 15 necessary permits and fees associated with the electrical work shall be included with the bid items and no additional compensation will be made. 16 17 18 Surface restoration (regardless of surfacing type) for areas disturbed by 19 activities associated with installing Illumination System equipment per this Section and not otherwise called out for replacement or in excess of the 20 21 limits shown in the Plans, shall be included in the respective lump sum price 22 and no additional measurement shall be made. 23 24 Temporary trench restoration during construction shall be included with the 25 bid items and no additional compensation will be made. 26 27 8-20.5 Payment 28 29 Section 8-20.5 is supplemented with the following: 30 (*****) 31 32 "Illumination System", lump sum. 33 34 The lump sum price bid for "Illumination System" shall constitute full 35 compensation for all labor, materials, tools, equipment, transportation, supplies, and incidentals required for a complete illumination system to 36 37 include, but not limited to, poles, brackets, luminaires, conductors, ground rods, fuses, quick disconnects, wire, restoring facilities destroyed or 38 damaged during construction, and connection to existing systems. The 39 40 lump sum price bid also includes coordination with Snohomish County PUD. 41 42 "Junction Box", per each. 43 The unit contract price per each for "Junction Box" shall be full 44 compensation for furnishing and installing all materials, labor and 45

SP-146

1 2 3	equipment necessary to install the junction box to include, but not be limited to, excavation, bedding, backfilling, wastehaul of excess excavated materia and compaction.
4 5	"Utility Pole for Tulalip Broadband", per each.
6	Samy relevant raising Ereadaura, per each
7	The unit contract price per each for "Utility Pole for Tulalip Broadband" shal
8	be full compensation for furnishing and installing all materials, labor, and
9	equipment necessary to install the wood utility pole, including excavation
10	backfilling wastehaul of excess material, compaction and coordination
11	efforts with Tulalip Broadband. The work also includes removal and
12	wastehaul of the old utility pole.
13	• •
14	8-21 PERMANENT SIGNING
15	
16 17	8-21.3 Construction Requirements
18	8-21.3(4) Sign Removal
19	
20	Section 8-21.3(4) is supplemented with the following:
21	
22	(*****)
23	The Contractor shall obtain approval from the Tribes prior to removing
24	existing signs.
25	
26	8-21.5 Payment
27	
28	This Section is supplemented with the following:
29	
30	(*****)
31	"Permanent Signing", per lump sum.
32	T
33	The lump sum contract price for "Permanent Signing" shall be full pay for al
34	material, labor, tools, and equipment necessary to furnish and install all new
35	permanent signs, including posts and fasteners, as shown on the Plans.
36	

1	8-22 PAVEMENT MARKING
2 3	8-22.1 Description
4 5	Section 8-22.1 is supplemented with the following:
6 7 8 9 10 11 12 13	(******) 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.
14 15 16 17	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.
18 19	8-22.2 Materials
20 21	Section 8-22.2 is supplemented with the following:
22 23 24 25	(******) Plastic pavement marking materials shall be Type A – Liquid Hot Applied Thermoplastic per Section 9-34.
26	8-22.3 Construction Requirements
27 28	Section 8-22.3 is supplemented with the following:
29 30 31 32 33 34	(******) 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.
35 36 37	The Contractor shall provide the Engineer with two copies of the manufacturer's recommendations for installation.
38 39 40 41	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.

42

**END OF DIVISION 8** 

1	DIVISION 9
2	
3	MATERIALS
4	9-05 DRAINAGE STRUCTURES AND CULVERTS
5	
6	9-05.20 Corrugated Polyethylene Storm Sewer Pipe, Couplings, and Fittings
7	
8	Delete the first sentence of the first paragraph and replace with the following:
9	
10	(*****)
11	Corrugated polyethylene storm sewer pipe, couplings and fittings shall meet
12	the requirements of AASHTO M 294 Type S.
13	END OF DIVISION 9
14	END OF DIVIDION 3

1

2

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Appendix A

**Geotechnical Reports** 

# Materials Testing & Consulting, Inc.

Geotechnical Engineering • Materials Testing • Special Inspection • Environmental Consulting



December 11, 2017 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: Battle Creek Housing Area - Geotechnical Engineering Report – Revision 1

Marine Drive & Lloyd Hatch Sr. Street -Tulalip, WA

MTC Project No.: 17B184

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.

Mat u.M.

Senior Project Geologist

Medhanie Tecle, P.E. Engineering Manager

Attachment: Geotechnical Engineering Report

Corporate • 777 Chrysler Drive • Burlington, WA 98233 • Phone 360.755.1990 • Fax 360.755.1980 SW Region • 2118 Black Lake Blvd. S.W.• Olympia, WA 98512 • Phone 360.534.9777 • Fax 360.534.9779 NW Region • 805 Dupont, Suite #5 • Bellingham, WA 98225 • Phone 360.647.6061 • Fax 360.647.8111 Kitsap Region • 5451 N.W. Newberry Hill Road, Suite 101 • Silverdale, WA 98383 • Phone/Fax 360.698.6787

Visit our website: www.mtc-inc.net

# REPORT OF GEOTECHNICAL **ENGINEERING INVESTIGATION**

# BATTLE CREEK HOUSING AREA PAVEMENT REHABILITATION -MARINE DRIVE & LLOYD HATCH SR STREET

TULALIP, WASHINGTON

Prepared for:

**Kevin Brown** Gray & Osborne, Inc. 3710 168th Street, Building B, Suite 210 Arlington, WA 98223

Prepared by:

12-11-2017

Kurt W. Parker

Kurt W. Parker, L.G. Senior Project Geologist Medhanie Tecle, P.E. **Engineering Manager** 

MATERIALS TESTING & CONSULTING, INC. (MTC)

777 Chrysler Drive

Burlington, Washington 98233

Phone: (360) 755-1990 Fax: (360) 755-1980

December 11, 2017 Revised on April 23, 2018

MTC Project Number: 17B184

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12-11-2017

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# 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 Battle Creek Housing Area Pavement Improvements. The project area is located southwest of Marine Drive, and northeast of Totem Beach Road near Tulalip Bay in Tulalip, Washington. A project vicinity map and aerial photo site plan of the project site are shown in Figures 1 and 2 of Appendices A and B.

#### 1.2 PROJECT DESCRIPTION

It is our understanding that the project consists of redevelopment of six roadways within the Battle Creek housing area. Proposed improvements include pavement rehabilitation/preservation or reconstruction. Developments will include: Lloyd Hatch Sr. Street, Alphonsus Bob Loop Road, Ernie Cladoosby Sr. Street, Wesley Charles Lane, Thomas Gobin Court, and a section of 28th Avenue NW. All of the streets mentioned above are currently developed with pavement, curbs and infrastructure, except 28th Avenue NW, which is an unimproved (or unpaved) gravel road and partial trail at present. Parameters for this project include: pavement recommendations for overlay, partial to full reconstruction, new construction 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 some roadways will undergo complete replacement, while other locations will be prescribed overlays and preservations as recommended within this report. 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, rehabilitation, and reconstruction 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 19th and November 1st and 2nd, 2017. Field work for data collection on October 19th involved directing and logging of ten (10) 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 medium dense to 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 exception of borehole B-1, which was advanced to 16.5 feet BPG. 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 occurred with a 140-pound hammer dropped 30 inches vertically. Boreholes were generally advanced with offsets of three to five feet from the existing curbs in the current asphalt paved roadways, backfilled with soil tailings and bentonite, and capped with cold patch on completion.

Borehole B-1 was advanced on Lloyd Hatch Sr. Road, NE of the intersection with Alphonsus Bob Loop Road within the dead-end northernmost terminus. Borehole B-2 was advanced on Alphonsus Bob Loop Road near the northern intersection with Lloyd Hatch Sr. Road. Borehole B-3 was advanced on Alphonsus Bob Loop Road NE of the southern intersection with Lloyd Hatch Sr. Road. Borehole B-4 was advanced on the SW portion of Alphonsus Bob Loop Road, close to the intersection with Totem Beach Road. Borehole B-5 was advanced on Ernie Cladoosby Sr. Street, NW of the intersection with Thomas Gobin Court, with B-6 advanced south of the intersection with Thomas Gobin Court. Borehole B-7 was advanced on 28th Avenue NW on the gravel road south of the Ernie Cladoosby Sr. St/Wesley Charles Lane intersection. Borehole B-8 was advanced on Wesley Charles Lane, NE of the partial culde-sac adjoined with Ernie Cladoosby Sr. Street. Borehole B-9 was advanced on Wesley Charles Lane, south of the intersection with Lloyd Hatch Sr Street. Borehole B-10 was advanced on Lloyd Hatch Sr Road, about half way between Wesley Charles Lane and Alphonsus Bob Loop Road. Borehole exploration locations are shown in Appendix B, Figure 3 (Google Maps, 2017).

MTC returned to the site on November 1st and 2nd, 2017 to conduct asphalt coring and to conduct

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 size of the project area, thirty-three (33) locations were selected for asphalt coring and subsequent kDCP tests. Spacing of the test locations was generally based on 200-foot intervals, with adjustments made for targeted areas of pavement in obviously poor condition or due to underground utility corridors. Asphalt core/ kDCP test locations are referred to in this report with capital "C" and the numerical designation (Example C-27). Exploration locations C-1, C-6, C-7 and C-26 through C-30 were advanced along Lloyd Hatch Sr. Street. Locations C-2 through C-5, C-8, C-9, C-12 and C-31 through C-33 were advanced along Alphonsus Bob Loop Road. On Ernie Cladoosby Sr. Street, test locations C-10, C-11, C-13, C-14 and C-17 to C-19 were advanced at select locations. Locations C-20 to C-25 were advanced on Wesley Charles Lane, with two locations, C-15 and C-16 advanced on Thomas Gobin Court.

Details of asphalt core/kDCP exploration locations are shown in Appendix B, Figures 4 and 5 and are approximate (Google Maps, 2017). If greater precision on the location of individual testing locations are required, we recommend professional survey services be utilized. 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, grain-size distribution analysis via sieve methods and Atterberg Limits. Laboratory test results are presented on test reports included in Appendix E.

# 3.0 EXISTING SITE CONDITIONS

# 3.1 SURFACE DESCRIPTION

The project vicinity is within a developed residential neighborhood southwest of Marine Drive and northeast of Totem Beach Road in Tulalip, Washington. The project is bounded by a forested corridor along Mission Creek to the southeast and other similar residential developments to the northwest. The project area ranges in elevation from approximately 90 feet above sea level in the north to about 40 feet near the south margin. Grades are generally level to gently sloping toward the south and southwest, dependent on location. The project area is accessed from Marine Drive via Lloyd Hatch Sr. Road in the north and from Totem Beach Road via Alphonsus Bob Loop Road in the south. Both of the above roads are considered neighborhood collector roads. Other roads within the project area are considered local access streets, with the exception of 28th Avenue NW, which is a primitive gravel road and trail at present. All roadways were observed to be moderate-use residential corridors with two-lane roadways, curbs and speed bumps in most facets. The dead-end or cul-de-sac portions of the roadways were observed with less traffic volume. It is our understanding that 28th Avenue NW is intended for design and use as a neighborhood collector road-way following completion of construction.

The project roadway site spans approximately 1.27 miles and includes the above described locations in section 1.2 of this report. Lloyd Hatch Sr. Street is 0.29 miles long and is paved with curbs, speed bumps and partial sidewalks. Alphonsus Bob Loop Road is paved and also measured at 0.29 miles, containing curbs, speed bumps and partial sidewalks. Ernie Cladoosby Sr. Street is about 0.24 miles long and contains asphalt pavement, curbs and partial sidewalks. Wesley Charles Lane is about 0.20 miles long and contains asphalt pavement, curbs, speed bumps and partial sidewalks. Thomas Gobin Court is 0.05 miles long and contains pavement, curbs and no sidewalks. All roadways and intersections are fully developed with similar surrounding conditions and were observed to be constructed at varying unknown dates historically. Thomas Gobin Court and sections of Wesley Charles Lane and Ernie Cladoosby Sr. St on their southern portions appear to be of most recent construction. The project area is mostly populated with single-family residences and a few sparse apartment complex buildings. Figures 2 through 5 of Appendix B as well as photographs displayed in Appendix C show details of existing site conditions.

Roadways are surfaced with asphalt pavement, with the exception of 28th Avenue NW. Observed pavement quality vary widely by location and range from generally good to poor, dependent on position within the project site. Surface asphalt quality ranges from generally recent and competent along Thomas Gobin Court and the south sections of Wesley Charles Lane and Ernie Cladoosby Sr. Street, to fair to poor and failing along sections of Lloyd Hatch Sr. Street and Ernie Cladoosby Sr. Street. The majority of sections with noticeable damage such as slumping, subsidence or cracking were observed within utility trenches. All of the observed paved roadways were bounded by concrete curb and gutter

structures throughout the project area with elevated sidewalks at rare locations. All observed sidewalks were composed of concrete and generally appear to be of newer construction than their adjoining roadways.

Vegetation of the area, at the time of our field explorations, consisted of maintained lawns, shrubbery and landscape development with some junior and sparse mature trees on roadway margins in select areas. A primarily mature forested corridor was found along boundary of the Mission Creek valley as well as along the gravel road of 28th Avenue NW.

# 3.2 AREA GEOLOGY

The Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington published by the United States Geological Survey (Minard, 1985) indicates that surface geology of the entire project site is composed generally of Recessional Outwash of the Fraser Glaciation (Unit Qvr). 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, 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 Washington Geologic Information Portal, published by the Washington State Department of Natural Resources (DNR) reports no mapped landslides within the project area or vicinity. 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. In the far north and northeast areas of the project site, 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. In the north-central and southeast sections of the project area, Bellingham silty clay loam is mapped with slopes of 0 to 3 percent. The landforms are depressions and drainageways and the parent material is alluvium over lacustrine deposits. A typical profile consists of silty clay loam from surface to 9 inches and silty clay from 9 to 60 inches depth. The soil is poorly drained and the depth to a restrictive feature is more than 80 inches. It has a moderately low to moderately high capacity to transmit water (Ksat). Depth to the water table is reported at 0 to 12 inches below surface. Alderwood gravelly sandy loam is mapped in the south-central and central areas of the project 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 dense 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.

Soil conditions encountered in the field consist primarily of native medium dense to dense sandy silt to silty sand to 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 interbedded glacial recessional outwash sediments, and are thus consistent with local geology sources.

#### 3.3 SOIL CONDITIONS

A general characterization of on-site soil units encountered during our geotechnical boring exploration at the ten 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 1.5 inches to 2.5 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 1.5 to 2.5 inches in majority and averaged 1.9 inches across the site at 8 borehole locations (B-1 to B-5 and B-8 to B-10). The newer southeast section of Ernie Cladoosby Sr. Street (Borehole B-6) contained a 3-inch asphalt section. All sections of hot-mix asphalt were constructed with ½-inch minus crushed aggregate underlain by CSTC base. Borehole location B-7 on 28th Avenue NW was not surfaced with asphalt.

# • Fill: Crushed Surface Top Course (CSTC) – Gravel with Sand (GW):

Coarse-grained soil of apparent structural fill quality was encountered from beneath the asphalt pavement to depths of about 0.5 feet BPG. Crushed surface top course fill was found at all asphalt borehole locations, was gray to brown in color, well-graded, generally medium dense to dense in consistency, damp and contained some fines content.

# • Fill: Pit Run – Sand with Gravel to Gravel with Sand (SW-GW):

Imported fill soils commonly known as "pit run" were recorded at two locations during boring advance within established roadways. On Wesley Charles Lane, at B-8 and B-9, a 0.5 to 0.7-foot thick section was logged below CTSC fill soils. The pit run fill was medium dense to dense in consistency, damp and red-brown to brown in color. At borehole B-7 on 28th Avenue NW, a

thicker section of imported fill, attributed to prior gravel road development was encountered. At this location, gravel with sand was encountered from surface to about 2.7 feet BPG before encountering native soil conditions. Soils at B-7 were very dense, damp and brown in color. Drilling advance was difficult for the entire length of the B-7 borehole, with notable poor recovery and high blow counts.

# Reworked Native Soils/Uncontrolled Fill – Silty Sand, Sandy Silt, Sand with Silt (SM, SM-ML, SP, ML):

Shallow soils encountered in borings were observed to vary between seven borehole locations, and commonly appeared to be disturbed or reworked native soils. Silty sand to sandy silt and sand with silt were observed below thin fill soils below the road base. Thicknesses of this section varied between locations but, was generally extended from 0.5 to 1.5 feet BPG. At B-3, reworked soils were intersected as shallow as 0.3 feet BPG and extended as deep as 1.7 feet BPG at B-3, B-4 and B-5. Soils generally were medium dense to dense, damp, and brown to gray in color with occasional scattered mottling and gravel contents of 10 to 20 percent.

# • Native Soils – Silty Sand, Sandy Silt, Sand with Silt, Gravel with Sand, Clayey Silt, Fat Clay (SM, ML, SW, GW, ML-CL, CH):

Interbedded fine to coarse-grained soils correlated with regional recessional outwash deposits were encountered at all boreholes, with upper contacts of 1.0 to 1.5 feet BPG and extending to the maximum depth of 16.5 feet BPG explored. The majority of boreholes were terminated at 11.5 feet BPG due to the need for relatively shallow subsurface data collection. The grain-size field classification was dominated by silty sand to sandy silt with varying gravel percentages, however a few notable exceptions were encountered. Cohesive soils were intersected at B-4 from 1.7 to 9.2 feet BPG, at B-6 from 0.6 to 6.1 feet BPG and at B-8 from 4.5 to 9.5 feet BPG. All native soils were generally medium dense to very dense 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 intermittently throughout the soil column. A notable contrast was found at B-5 from 8.0 to 9.5 feet within a very dense gravel with sand layer that contained strong oxidation and had a very dense consistency, likely attributed to the regional geologic description of iron oxide cemented strata as referenced in Section 3.2 of this report.

# 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 33 asphalt cores, with 3 to 4-inch diameter, to evaluate general pavement thicknesses and to allow access for Kessler DCP advancements. Core thicknesses from locations C-1 to C-13

ranged from 1.5 to 2 inches, with location C-6 slightly greater, that is, 2.25 inches. Asphalt thicknesses from C-15, C-16 through C-19, and C-22 ranged from 3 to 3.5 inches. The most significant jump in core thickness throughout the project area was at C-15, with a measured asphalt thickness of 4.5 inches. Cores C-21, and C-23 to C-33 ranged in thickness from 1.5 to 2.25 inches. Core C-20 was measured as 2.75 inches thick. Photographs of groups of asphalt core samples are provided in Appendix E 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 all 33 asphalt core locations to a maximum depth of 90 cm or to refusal conditions at shallower depths. Kessler data was then processed to determine California Bearing Ratio (CBR) values and provide a baseline for pavement calculations. Details of all 33 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 Mission Creek, located approximately 200 to 500 feet southeast of the southeast project boundary adjacent to Wesley Charles Lane and 28th Avenue NW. The Pacific Ocean at Tulalip Bay is located about 600 feet southwest of the intersection of Totem Beach Road and Alphonsus Bob Loop Road at a lower elevation.

Groundwater was encountered during borehole advancement at three locations within the project site. Groundwater was measured during borehole advancement at B-1 at 7.4 feet BPG at an elevation of 80 feet above sea level in the northwest portion of the project area on Lloyd Hatch Sr Road. At B-4, groundwater was measured at 8.3 feet BPG at an estimated elevation of 50 feet above sea level on Alphonsus Bob Loop Road, near the intersection with Ernie Cladoosby Sr. Street. At B-5, groundwater was measured at 9.7 feet BPG with an estimated elevation of 65 feet above sea level on Ernie Cladoosby Sr Street. All other borehole locations, advanced to 11.5 feet BPG did not intersect groundwater.

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 low stages. Evidence of seasonal high groundwater conditions was commonly observed in the form of light to moderate oxidation staining, banding and mottling at more shallow levels, interpreted as resulting from cyclical wetting and drying of soils related to seasonal groundwater fluctuations. The most prominent depths of oxidation and mottling bands varied throughout the site, but was generally consistent in the range of 4 to 6 feet BPG at multiple locations. Light banding suggests a rapid rise and fall of seasonal high-water levels followed by swift drawdown following cessation of winter or wet season storm events. The transition from brown colored and oxidized soils to gray color with a lack of

oxidation suggest that the interbedded nature of the project site has a strong lateral control on groundwater conditions.

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 Recessional Glacial Outwash (Qvr), composed typically of medium dense/stiff to dense/very stiff silty sand, sandy silt, sand with silt and gravel with sand extending to roughly 11.5 or more feet BPG in all borehole locations. Native soil conditions were typically encountered at depths of 1.0 to 1.5 feet BPG and continued through maximum depths explored and correlate closely with regionally mapped interbedded outwash deposits. Medium dense/very stiff conditions were typically encountered by 2.5 feet depth in SPT boreholes. Overlying fill and disturbed local soils were observed to be of a medium dense or stiff consistency. CBR values of the upper approximately three feet of the soil column varied by location and displayed relatively high values. Only locations C-2, C-6, C-11, C-1 and C-27 had low values of 3.7 CBR. Nine locations produced CBR values ranging from 7 to 8. The remainder of test locations had CBR values exceeding 15 and ranging to 50 or more.

The lack of topsoils or thick uncontrolled fills, and general absence of unsuitably loose or soft soils at anticipated subgrade levels indicates that traditional shallow preparation and construction methods are generally feasible for the proposed project and site conditions. High 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 fill material was present below imported crushed surface top course 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 utility corridors. The more recent areas of construction (Thomas Gobin Court, south section of Ernie Cladoosby Sr. Street and south section of Wesley Charles Lane) generally appear to be constructed with adequate pavement thicknesses and show little sign of damage that would necessitate complex repair or replacement procedures.

A wide range of asphalt thicknesses was encountered during our field exploration ranging from a low value of 1.5 inches at C-1, C-8, C-11, C-12 and C-27, up to 4.5 inches at C-15. The existing soil in all cases below core locations was recorded as structural quality crushed surface top course (CSTC). Soils documented at the base of asphalt coring locations indicate consistent base material and subgrade

density conditions, however areas of existing damage will likely continue to expand over time. Roadway improvements will vary by location and be area-specific. Likely preservation methods will include chip or crack sealing and grind-and overlay procedures. Heavy use, damaged or subsiding/failure areas should be considered for modified repair or full section replacement where applicable.

### 4.2 SCOPE OF SITE GRADING

A grading plan was not available to MTC at the time of this report. 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 phenomenon or high seasonal groundwater 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.

## 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 corridors. 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 concern during road exploration operations, as the residential neighborhood undergoes moderate traffic volumes daily. 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 to the expanse of the project area and in part due to existing utility corridors and traffic concerns, 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. Select locations not considered to be of concern were also studied to compare and contrast the existing pavement as well as subgrade strata with areas of visible damage throughout the subject area. 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 200-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 partial data on measured traffic volumes for the project area by the Tulalip Tribe Transportation Division and by communication with Gibson Traffic Consultants. Traffic volumes were provided for some of Lloyd Hatch Sr. Road, Wesley Charles Lane and a portion of Alphonsus Bob Loop Road. No direct data was given for Ernie Cladoosby Sr. Street, Thomas Gobin Court or for the proposed (and unpaved) 28th Avenue NW. Data for these unknown areas were estimated by MTC based on provided data, selected location and visual observations during site work. Correspondence with Gibson Traffic Consultants following field work and report drafting revealed the highest Average Daily Traffic (ADT) at the neighborhood entrance on Lloyd Hatch Sr. Road, with other areas showing lesser volumes. Values provided to MTC were in Average Daily Traffic (ADT) volumes and were assumed to

include truck percentages of 3% total volume. Gibson Traffic Consultants provided estimates of 500 to 800 ADT for the neighborhood entrance at Marine Drive and Lloyd Hatch Sr. Road, and volumes of less than 400 ADT for other areas. This newer information, combined with data originally delivered by the Tulalip Transport Division and our site observations has contributed to our calculated pavement sections that follow. Gibson also verified truck percentages during correspondence with MTC.

In consideration of the project area overall and the length of roadway targeted for preservation or improvement, subsections of the project have been created for this report to provide detailed analysis as determined by site conditions and project team requests. Some areas will be recommended with little to no additional improvements, while other locations are intended to have full reconstruction. As such, Section 5.2 of this report will discuss nine 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 3% truck traffic per day, assuming Semi Tractor Trailer Trucks as the largest vehicles on the roadway. Three notable zones were recognized during pavement calculations and include: higher volume zones of 180,000 to 130,000 design ESAL for neighborhood collectors, moderate volume zones of 80,000 for local access streets and low volumes zones of 45,000 to 35,000 ESAL for cul-de-sac and dead-end roads. 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
Lloyd Hatch Sr. Rd - South	2	500-800	50%	300	179,699	180,000
Lloyd Hatch Sr. Rd – North*	2	Unknown	50%	125*	78,834	80,000
Alphonsus Bob Loop – North*	2	Unknown	50%	125*	76,923	80,000
Alphonsus Bob Loop - South	2	400	50%	200	140,790	140,000
Wesley Charles Lane	2	250	50%	125	78,638	80,000
Ernie Cladoosby Sr. St – North*	2	Unknown	50%	35*	34,792	35,000
Ernie Cladoosby Sr. St – South*	2	Unknown	50%	150*	80,513	80,000
Thomas Gobin Court*	2	Unknown	50%	50*	45,011	45,000
28th Avenue NW*^	2	Unknown	50%	200*	129,219	130,000

^{*}Estimated average daily traffic counts. ^ Future roadway in plan & design phase at present.

#### 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 soils of generally firm quality to remain beneath the pavement sections for either overlay or 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 when full replacement options are 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-93 Flexible Pavement Design methods. Resulting sections are summarized per Design Zone ESAL value in Section 5.4 below. No reduction factor was used for pavement section drainage considering the apparent free-draining nature of the site subgrade, existing stormwater controls and the depth to interpreted seasonal high groundwater. The following other standard input parameters were used:

- o Pavement Design Life = 20 years
- o Terminal Serviceability Index = 2.0
- o Reliability = 80
- o Expected Growth Rate = 1%
- o Subgrade CBR Value = 5

#### 5.2 PAVEMENT DESIGN RECOMMENDATIONS

Pavement design sections developed with AASHTO-93 calculations were divided into nine segments based on location, field data, ADT and ESAL numbers. 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/or overlay procedures, localized repairs or simplified crack/chip seal, along with time of year elected for construction. Also in consideration as potential improvement scenarios are soil-cement amendment and reinforcement with geosynthetic fabrics.

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 silty sand to sandy silt 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 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 soils 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 standard 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.

All roadways were assigned a minimum asphalt pavement section of 3 inches for the first option of full construction, with the exception of Lloyd Hatch Sr. Road, which was assigned a 4-inch section. The second option adopts 4 inches of asphalt over a single lift of CSBC for all project areas. 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. Per discussions with the client, MTC understands that the curb and gutter alignments are intended to remain in place site wide and the planned final grades are intended to match the existing infrastructure. Select locations may require some realignment of curb and gutter facilities based on observed conditions. 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.

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. For clarity, the sections described below are highlighted individually within Figure 6 of Appendix B.

#### SECTION 1: Lloyd Hatch Sr. Street - South

The highest volume of traffic for the project area extends southwest of Marine Drive from the entrance to the neighborhood for approximately 800 feet to the intersection with Alphonsus Bob Loop Road. The area near the entrance to the neighborhood is heavily cracked with an "alligator" pattern and contains some newer utility trench patching. Portions to the southwest of the heavily damaged location show evidence of utility trench subsidence perpendicular to the drive lanes and curb alignment. Some cracking was noted near the intersection with Alphonsus Bob Loop Road as well. Asphalt pavement thicknesses ranged from 1.5 to 2.25 inches at core locations C-26 to C-30, and 2.5 inches at borehole B-

10. This zone may be considered for full reconstruction or partial replacement. A minimum of 4 inches thick HMA is recommended with new construction for both the CSTC/Gravel Base and CSBC options due to this location receiving the heaviest traffic volumes of the project area. Preservation efforts may include localized chip sealing and a thin overlay if desired. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade because of existing curb and gutter elevations. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Lloyd Hatch Sr. Drive - South		Design E	00	
Ι	Design Scenario	Pavement (1/2-inch HMA) (inches)	CSTC (inches)	Gravel Base (inches)	TOTAL (inches)
N	ew Construction	4	2	5	11
N	ew Construction	4	-	6 (CSBC)	10

#### SECTION 2: Lloyd Hatch Sr. Street - North

A moderate to low volume traffic zone of the project area that extends northwest from the intersection of Alphonsus Bob Loop Road to the dead-end road terminus over a horizontal distance of approximately 800 feet. This section shows some indication of utility trench subsidence and alligator cracking locally, especially near the northerly intersection with Alphonsus Bob Loop Road, but lacks significant overall damage or wear indicators. The northernmost dead-end section was observed in a generally acceptable condition. Asphalt pavement thicknesses ranged from 1.5 to 2.25 inches at core locations C-1, C-6 and C-7, and 2.0 inches at borehole B-1. This zone may be considered for preservation, full reconstruction or partial 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. Preservation may include crack sealing and a thin layer of asphalt overlay if desired. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Lloyd Hatch Sr. I	Design ESAL=80,000			
	Design Scenario	Pavement (1/2-inch HMA) (inches)	CSTC (inches)	Gravel Base (inches)	TOTAL (inches)
1	New Construction	3	2	6	11
1	New Construction	4	-	6 (CSBC)	10

#### SECTION 3: Alphonsus Bob Loop Road - North

A moderate volume traffic zone of the project area that is bounded by Lloyd Hatch Sr Street to the southeast at both junctions. The area is considered a local access street and is approximately 950 feet long. The northern section shows significant utility trench subsidence, slumping, potholing and some cracking and is considered one of the more heavily damaged zones. The central zone displays some trench settlement in localized zones. The southern segment also contains some significant slumping and subsidence around trenches and manholes. Asphalt pavement thicknesses ranged from 1.75 to 2.25 inches at core locations C-2 to C-5 and C-31, and 2.0 inches at borehole B-2. This zone may be considered for full reconstruction or partial 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. Preservation efforts may include crack sealing and a thin layer of asphalt overlay if desired, however large portions of this section of the project are likely subject to new construction. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Alphonsus Bob Loo	Design ESAL=80,000				
]	Design Scenario  Pavement (1/2-inch HMA) (inches)		CSTC (inches)	Gravel Base (inches)	TOT	
N	New Construction	3	2	6	11	
N	ew Construction / Overlay	4	-	6	10	

#### SECTION 4: Alphonsus Bob Loop Road - South

The second highest reported volume of traffic for the project area extends northeast from Totem Beach Road for approximately 700 feet to the intersection of Lloyd Hatch Sr. Street. The roadway is considered a neighborhood collector, and at present is the solitary access from the west. The northeast section before the junction with Ernie Cladoosby Sr. Street appeared in acceptable condition. The central and southern segments contain some utility trench slumping and settlements, along with surface cracks and localized alligator fractures near the neighborhood entrance on Totem Beach Road. Asphalt pavement thicknesses ranged from 1.5 to 2.0 inches at core locations C-8, C-9, C-12, C-32 and C-33, and 1.75 inches at borehole B-4. This zone may be considered for full reconstruction, partial replacement or preservation by overlay and crack sealing. 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 below asphalt. Preservation efforts may include chip sealing and a thin layer of asphalt overlay if desired. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Alphonsus Bob Loop Road - South		Design ESAL=140,000			
-	Design Scenario	Pavement (1/2-inch HMA) (inches)	CSTC (inches)	Gravel Base TO (inches)		
1	New Construction	3	2	8	13	
1	New Construction	4	-	8 (CSBC)	12	

#### SECTION 5: Wesley Charles Lane

A moderate to low volume traffic zone bounded by Ernie Cladoosby Sr. Street to the southeast and Lloyd Hatch Sr. Street to the northeast. This roadway is approximately 1000 feet long and contains a newer pavement section in the south and an older portion to the north. The newer section shows only minimal cracking in select areas. The older section shows increased wear with cracking. Core thicknesses within the northern portion were in the range of 1.75 to 2.0 inches at locations C-23 to C-25 and 1.5 inches at B-9. The southern section is considered for preservation methods at present, however an increase in traffic volume will likely occur if 28th Avenue NW is developed into a neighborhood

collector street, and thus should be considered in the design. The northern section may be considered for full reconstruction, partial replacement or preservation by overlay and crack sealing. 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 below asphalt. Preservation efforts may include chip sealing and a thin layer of asphalt overlay if desired. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Wesley Charles Lane		Design 1	0	
Ι	Design Scenario Pavement (1/2-inch HMA) (inches)		CSTC (inches)	Gravel Base (inches)	TOTAL (inches)
N	lew Construction	3	2	6	11
N	lew Construction	4	-	6 (CSBC)	10

#### SECTION 6: Ernie Cladoosby Sr. Street - North

This area comprises the dead-end roadway northwest of Alphonsus Bob Loop Road and terminates in a cul-de-sac. This low volume roadway is approximately 275 feet long and displays some localized utility trench slumping, along with subsidence within a patched roadway area. The lowest estimated traffic volume is contained within this section. Core thicknesses were measured at C-10 and C-11 at 1.5 to 2 inches. From previous discussions with the client, it was determined that the cul-de-sac will receive only crack sealing procedures. The remainder of the road length may be considered for partial to full replacement, or preservation as applicable. 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 below asphalt. Preservation efforts may include chip sealing and a thin layer of asphalt overlay if desired. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

Ernie Cladoosby Sr. Street - North		Design ESAL=35,000		
Design Scenario  Pavement (1/2-inch HMA (inches)		CSTC (inches)	Gravel Base (inches)	TOTAL (inches)
New Construction	3	2	3	8
New Construction	4	-	4 (CSBC)	8

### SECTION 7: Ernie Cladoosby Sr. Street - South

A moderate use traffic zone considered a local access road with traffic flow from both Wesley Charles Lane in the south and from Alphonsus Bob Loop Road in the northeast. The overall estimated length is The northeast section is an older roadway, with a shorter length, and a more recent constructed zone to the southeast adjoining Wesley Charles Lane. The northern section shows significant utility trench subsidence, slumping, alligator cracking in several zones and is some of the more significantly damaged roadway for the project area. The newer southern zone shows only minor cracking and potential trench settlement in localized zones. Asphalt pavement thickness was measured at 2.0 inches at C-13 and 3.0 to 3.5 inches at C-14, C-17, C-18 and C-19, with borehole B-5 at 2.0 and B-6 and B-7 at 3.0 inches thick. The newer southern section in general is considered for preservation methods, while the north section is estimated to require new construction. The roadway will likely see an increase in traffic volume if 28th Avenue NW is developed into a neighborhood collector roadway as accessed from Totem Beach Road. 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. Preservation efforts may include crack sealing and a thin layer of asphalt overlay if desired, however large portions of this segment of the project are subject to new construction. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Ernie Cladoosby Sr. Street - South		Design	0	
Ι	Design Scenario	Pavement (1/2-inch HMA) (inches)		Gravel Base (inches)	TOTAL (inches)
N	ew Construction	3	2	6	11
N	ew Construction	4	-	6 (CSBC)	10

#### SECTION 8: Thomas Gobin Court

This area comprises the dead-end roadway terminating in a cul-de sac southeast of Ernie Cladoosby Sr Street and is measured at about 250 feet in length. The roadway is of more recent construction and displays localized alligator and linear cracking, attributed to utility trench subsidence. The road is estimated at a lower volume of traffic with only one access point. Core thicknesses were measured at 3.0 to 4.5 inches at C-15 and C-16. It is assumed from its condition that only preservation methods of crack sealing or local repairs will be necessary. If the designer elects for new construction, 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 below asphalt. Grind and overlay procedures to increase the pavement section will likely not be feasible without complete removal of asphalt to subgrade, however a thin application of new pavement via grind and overlay may be preferred. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

Thomas Gob	Thomas Gobin Court		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	

### SECTION 8: 28th Avenue NW

As addressed within, this area of the project is currently a primitive gravel road with partial foot trail and no through vehicle access. It is our understanding that when completed this approximately 400-foot segment will become a new neighborhood collector roadway. The area contains some underground utilities and is surfaced with about 2.5 feet of gravel base over native soils as explored at borehole B-7. The existing gravel base may be considered for re-use but should be confirmed during construction for quality of material and depth of fill. The area will likely see some clearing and grading to widen the corridor and remove vegetation including mature trees. In design, we assumed a higher volume of traffic loading comparative to Alphonsus Bob Loop Road – South, as addressed above. 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 below asphalt. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

28th Avenu	28th Avenue NW			000
Design Scenario	Pavement (1/2-inch HMA) (inches)	CSTC (inches)	Gravel Base (inches)	TOTAL (inches)
New Construction	3	2	7	12
New Construction	4	-	7 (CSBC)	11

#### 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 D to E, representing 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 medium dense to dense native soil deposits. 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)	Ss	1.262 g
mapped reconstructor runameters (mez nonzonan)	$S_1$	0.483 g
Site Coefficient Values	Fa	1.000
Site Coefficient values	$F_{v}$	1.517
Calculated Peak SRA	S _{MS}	1.262g
Calculated Peak SRA	$S_{M1}$	0.733 g
Design Book SB A (2/2 of needs)	S _{DS}	0.841 g
Design Peak SRA (2/3 of peak)	S _{D1}	0.489 g
Seismic Design Category – Short Period (0.2 Second)	Acceleration	D
Seismic Design Category – 1-Second Period Acceleration	ion	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 beyond the outside of the footing a distance equal to the depth of the over-excavation below the footing. 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 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 water seepage in excavations and corresponding dry weather periods.

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. It should be understood that some amount of water seepage from groundwater sources or perched lenses, if present, may be unavoidable year-round in areas of potentially deeper excavations of light pole foundations.

#### 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 sand 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. Site native silty sand to sandy silt may 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.

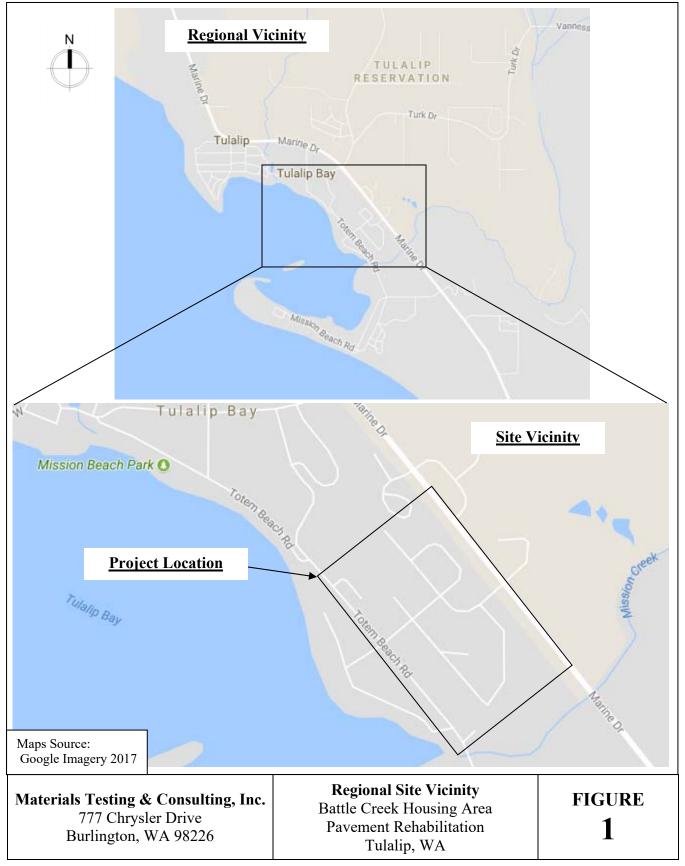
We have prepared this report in substantial accordance with the generally accepted geotechnical engineering practice as it exists in the site area at the time of our study. No warranty, express or implied, is made. The recommendations provided in this report are based on the assumption that an adequate 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**



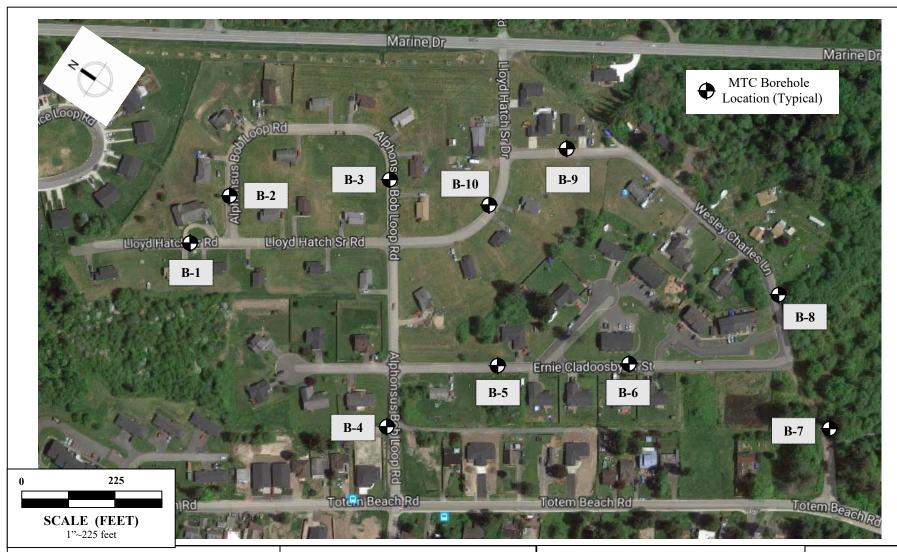
# **Appendix B. EXPLORATION LOCATIONS**



Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233 **Project Area Overview**Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

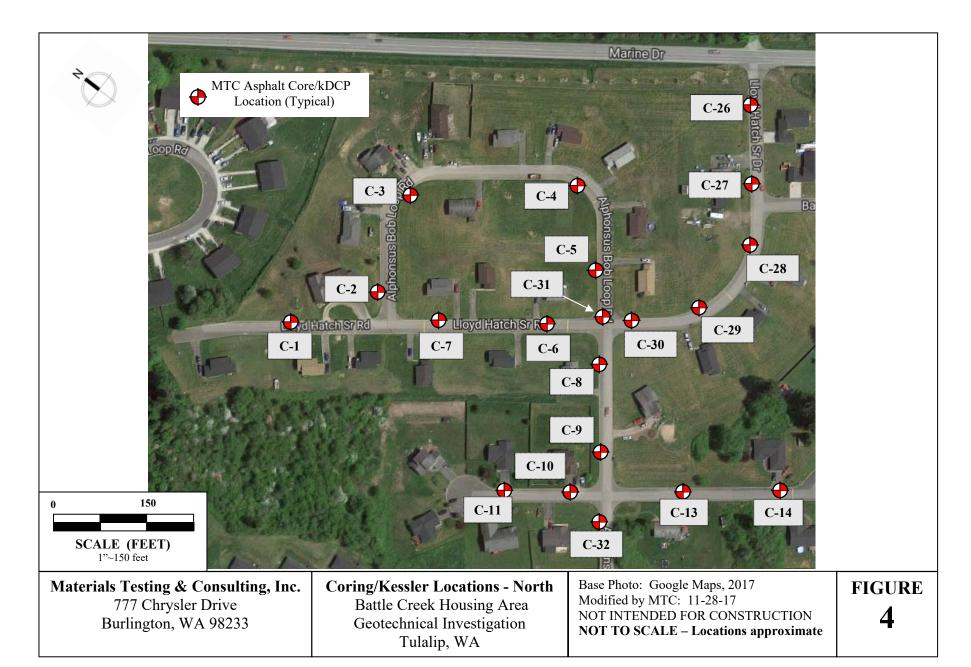
Base Photo: Google Maps, 2017 Modified by MTC: 11-28-2017 KWP NOT INTENDED FOR CONSTRUCTION NOT TO SCALE – Locations approximate FIGURE 7

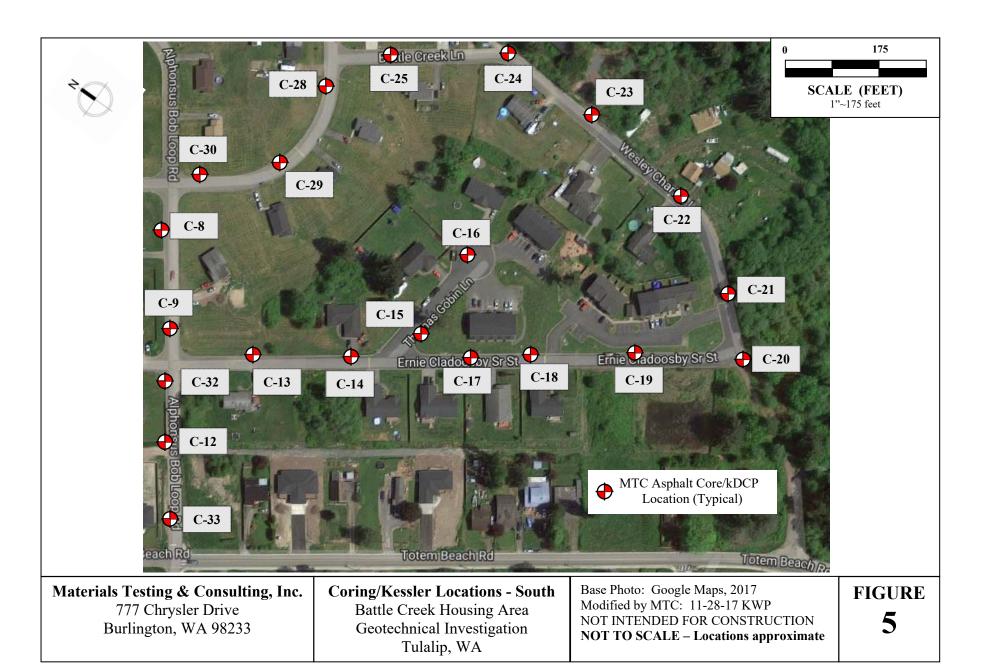
Project No.: 17B184



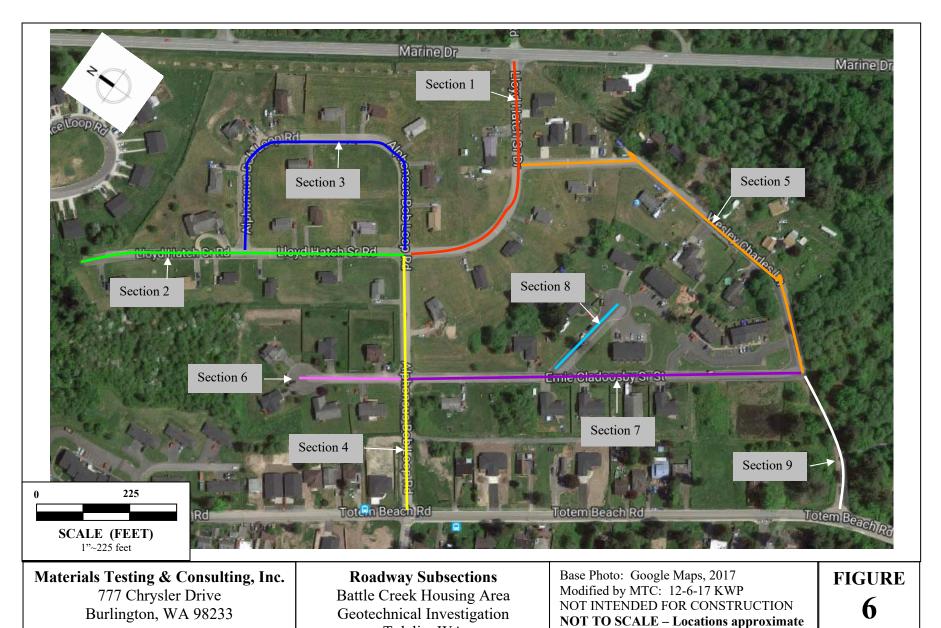
Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233 Boring Exploration Locations
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

Base Photo: Google Maps, 2017 Modified by MTC: 11-28-17 KWP NOT INTENDED FOR CONSTRUCTION NOT TO SCALE – Locations approximate FIGURE 3





December 11, 2017 – Revised April 23, 2018



Tulalip, WA

# **Appendix C. PHOTOS OF SITE CONDITIONS**



Photo A: Boring location B-1 on the north terminus of Lloyd Hatch Sr. Street. View facing north.



**Photo B:** Site of borehole B-2 on the north side of Alphonsus Bob Loop Road. Pavement cracking and utility trench subsidence with water in pothole at lower left. View facing west.



**Photo C:** Borehole B-5 location on Ernie Cladoosby Sr. Street facing NW toward the intersection with Alphonsus Bob Loop Road in middle distance of picture.



**Photo D:** Location of borehole B-7 on 28th Avenue NW on the gravel road north of Totem Beach Road near the south margin of the project area. Facing NE.



**Photo E:** View facing SE of asphalt core/Kessler location C-3 on Alphonsus Bob Loop Road.



**Photo F:** Site location of asphalt core/Kessler C-7 on Lloyd Hatch Sr. Street, NW of the intersection with the southern portion of Alphonsus Bob Loop Road. Facing NW.



**Photo G:** Location of asphalt core/Kessler C-17 on Ernie Cladoosby Sr. Street. Center of photo highlights road damage in this area. View facing SE.



**Photo H:** Location of asphalt core/Kessler C-26 on Lloyd Hatch Sr. Street near the northeast entrance to the project area. Marine Drive NE is beyond the box truck and flagger in the middle distance. Road damage evident in lower central area of picture. Facing E.

# 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.

Major Divisions			Graph	USCS	Typical Description
Coarse Grained Soils	Gravel	Clean Gravels	0.0.0	GW	Well-graded Gravels, Gravel-Sand Mixtures
	More Than 50% of Coarse Frac-	Cean Graves		GP	Poorly-Graded Gravels, Gravel-Sand Mixtures
More Than 50% Retained On	tion Retained On No. 4 Sieve	Gravels With Fines	0 0 0	GM	Silty Gravels, Gravel-Sand-Silt Mixtures
No. 200 Sieve	Sieve	Gravers with rines	0 0	GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	Sand	Clean Sands		SW	Well-graded Sands, Gravelly Sands
	More Than 50% of	1		SP	Poorly-Graded Sands, Gravelly Sands
	Coarse Frac- tion Passing No. 4 Sieve	Sands With Fines		SM	Silty Sands, Sand-Silt Mixtures
		Sands With Fines	//	SC	Clayey Sands, Clay Mixtures
Fine Grained Soils				ML	Inorganic Silts, rock Flour, Clayey Silts With Low Plasticity
N. 71 500/	Silts & Clays	Liquid Limit Less Than 50		CL	Inorganic Clays of Low To Medium Plasticity
More Than 50% Passing The No. 200 Sieve				OL	Organic Silts and Organic Silty Clays of Low Plasticity
				МН	Inorganic Silts of Moderate Plasticity
	Silts & Clays	Liquid Limit Greater Than 50		СН	Inorganic Clays of High Plasticity
			•//.	ОН	Organic Clays And Silts of Medium to High Plasticity
I	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**

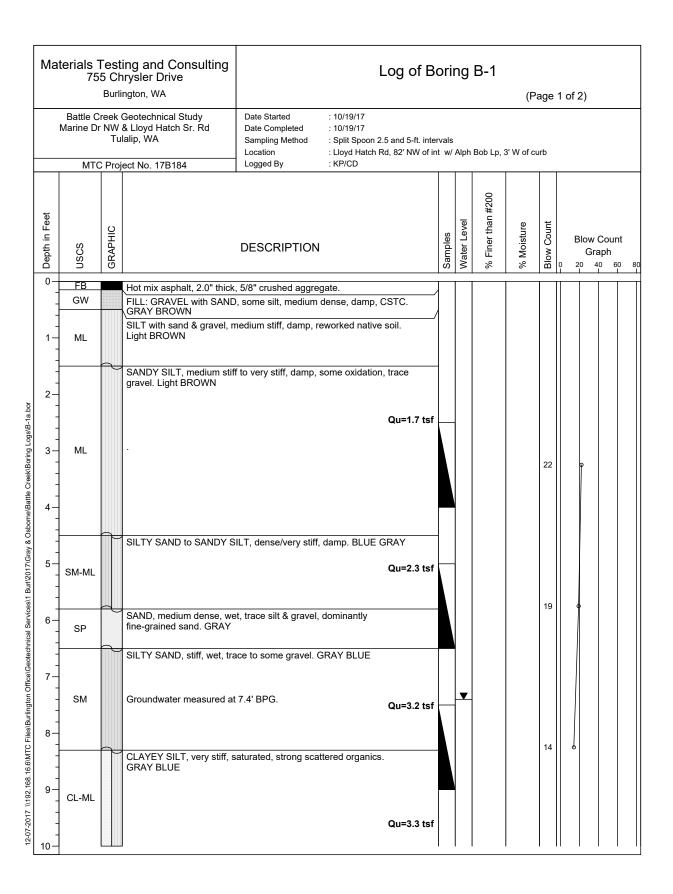
Granula	r Soils	Fine-grained Soils		
Density	SPT Blowcount	Consistency	SPT Blowcount	
Very Loose	0-4	Very Soft	0-2	
Loose	4-10	Soft	2-4	
Medium Dense	10-30	Firm	4-8	
Dense	30-50	Stiff	8-15	
Very Dense	> 50	Very Stiff	15-30	
		Hard	> 30	

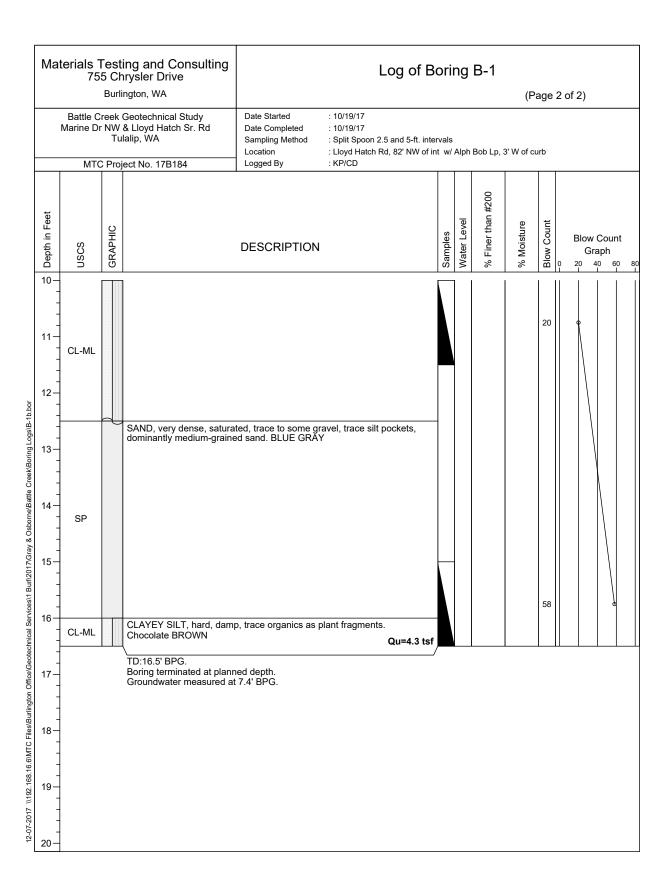
#### Grain Size

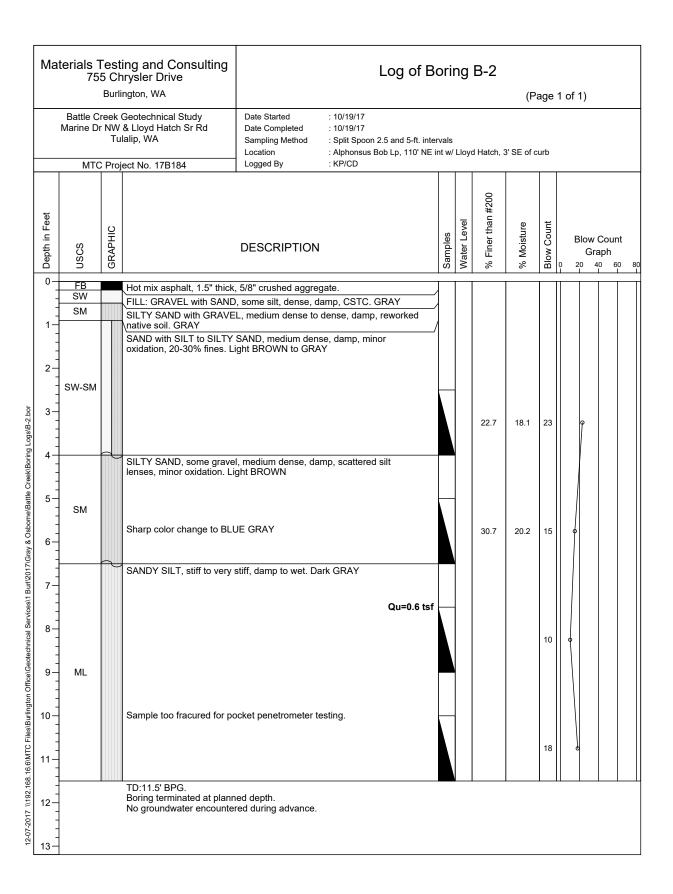
Gram Size							
DESCRIPTION		SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE			
Boulders		> 12"	> 12"	Larger than a basketball			
Cobbles		3 - 12"	3 - 12"	Fist to basketball			
Gravel	Coarse	3/4 - 3"	3/4 - 3"	Thumb to fist			
	Fine	#4 - 3/4"	0.19 - 0.75"	Pea to thumb			
Sand	Coarse	#10 - #4	0.079 - 0.19"	Rock 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			

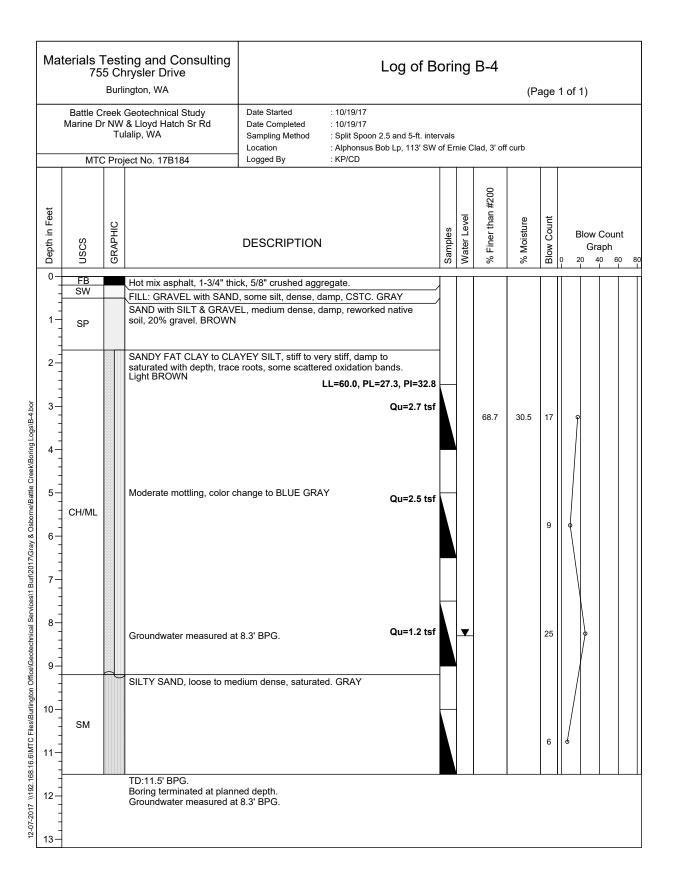
Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233 Exploration Log Key
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

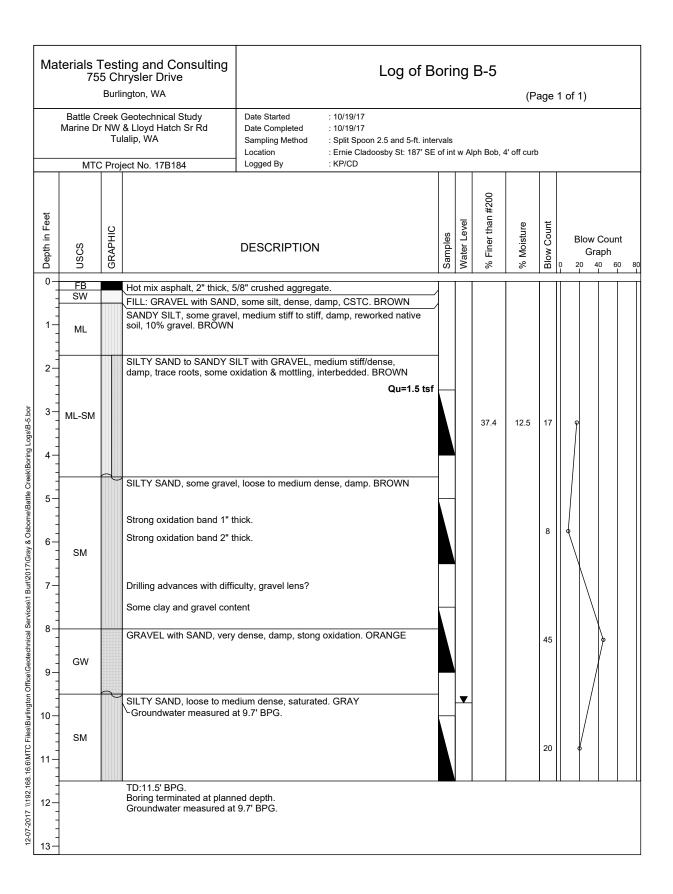
FIGURE 7

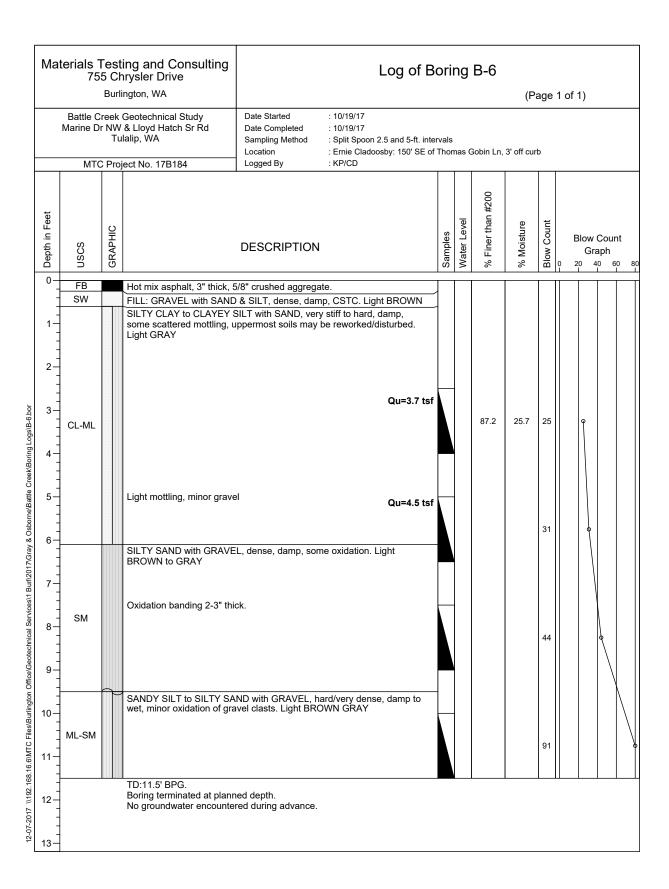


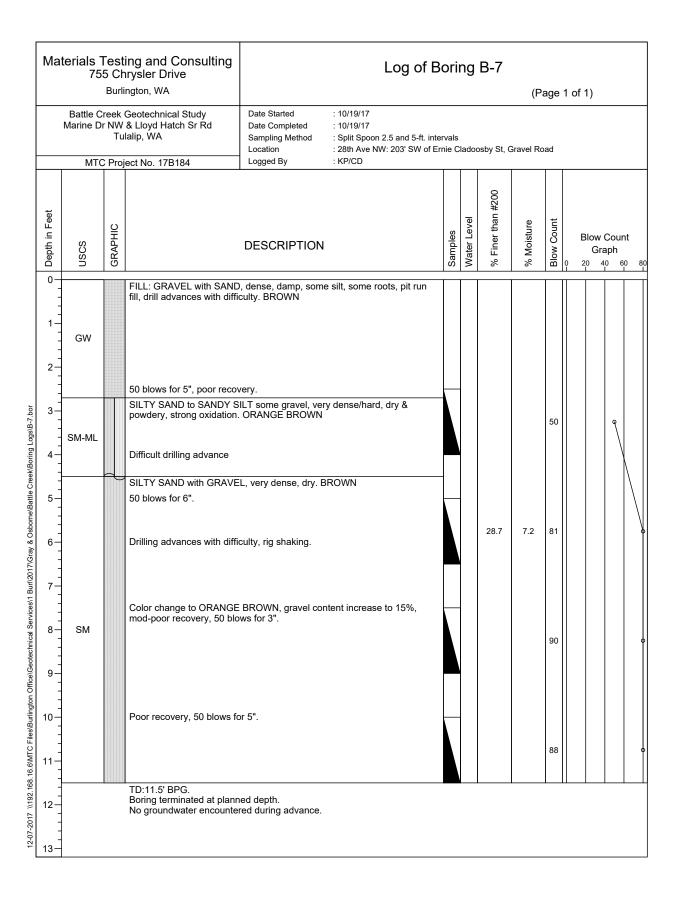


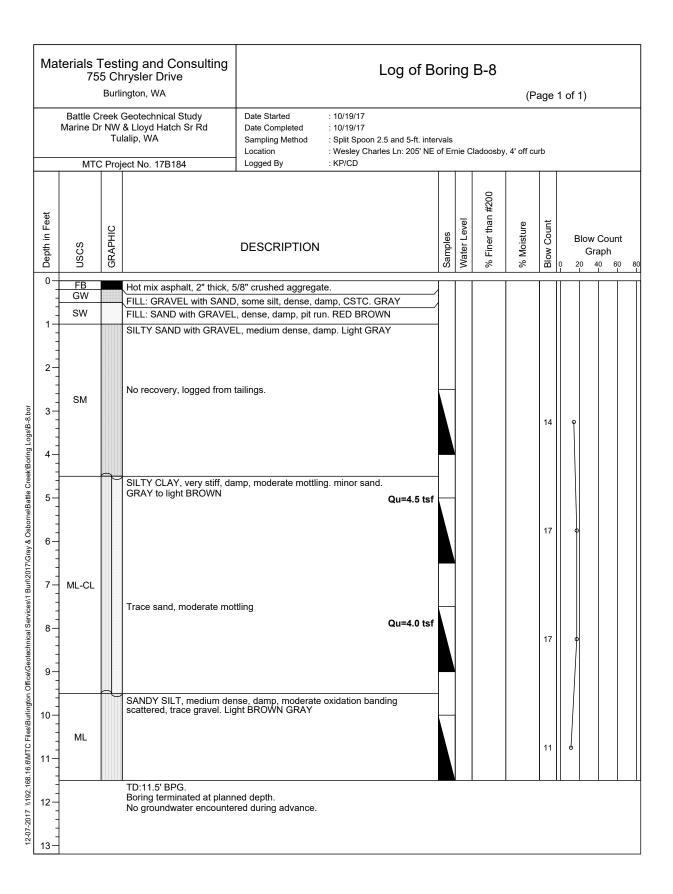


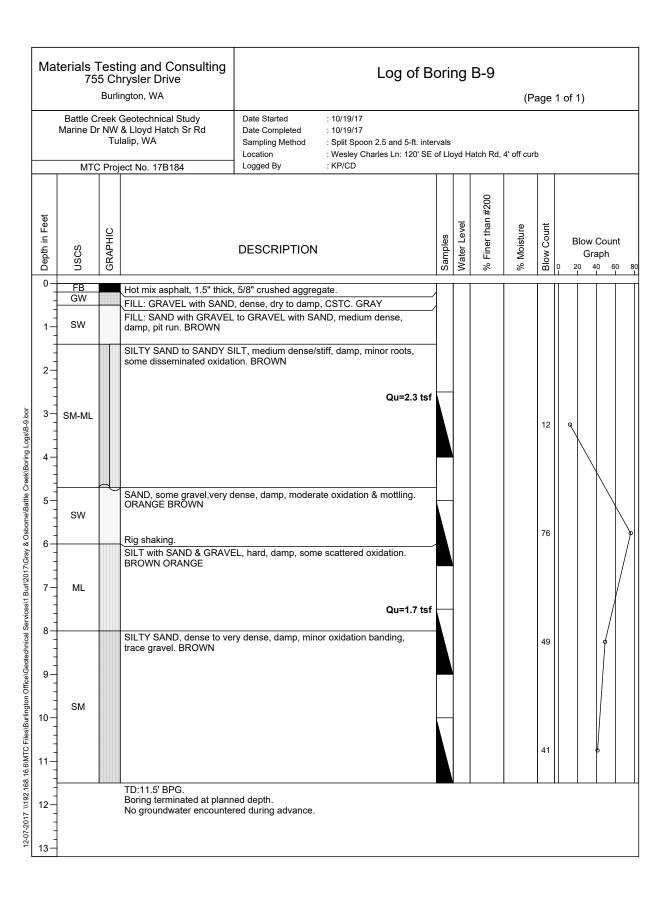


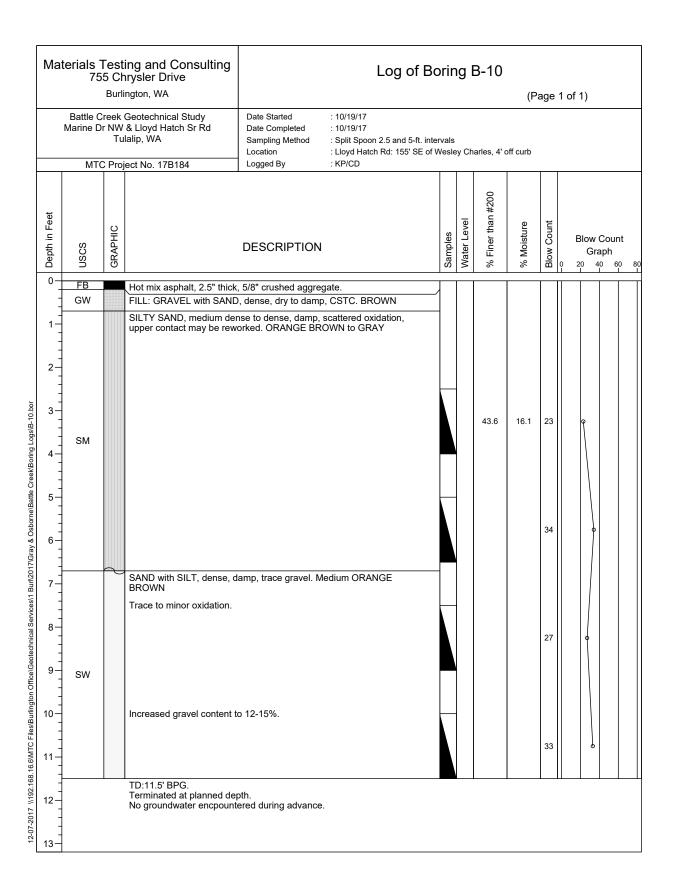


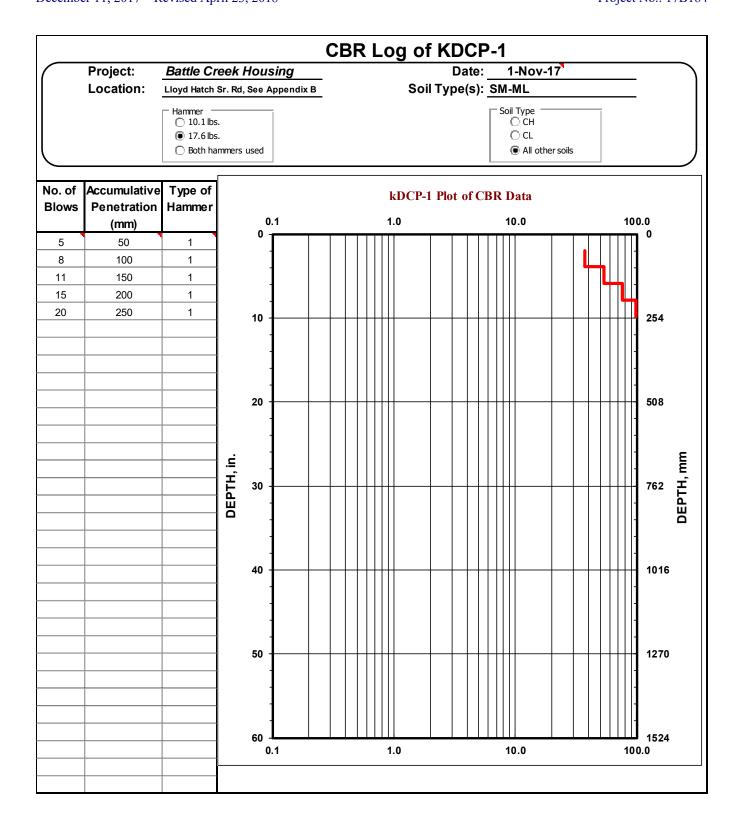


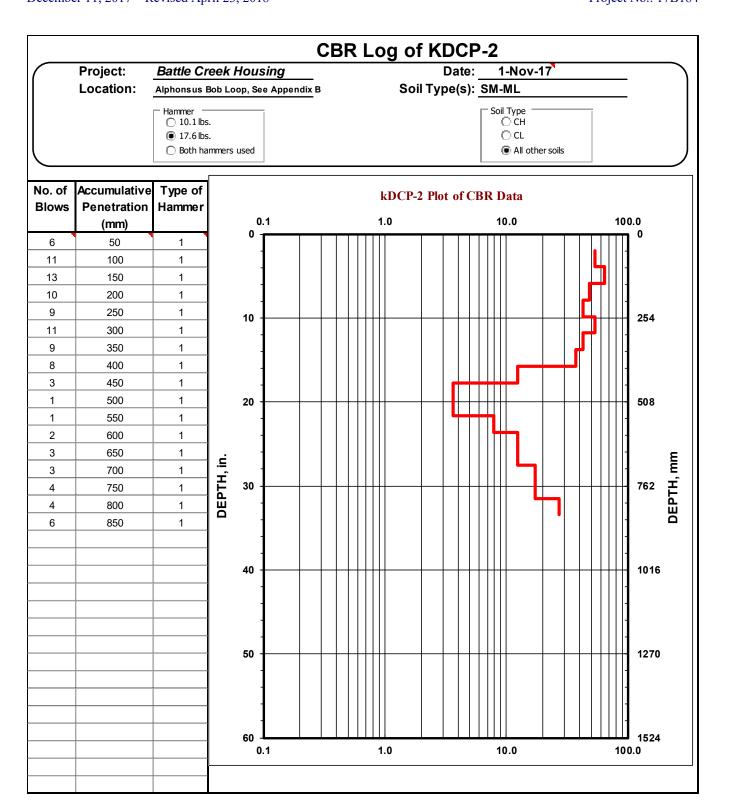


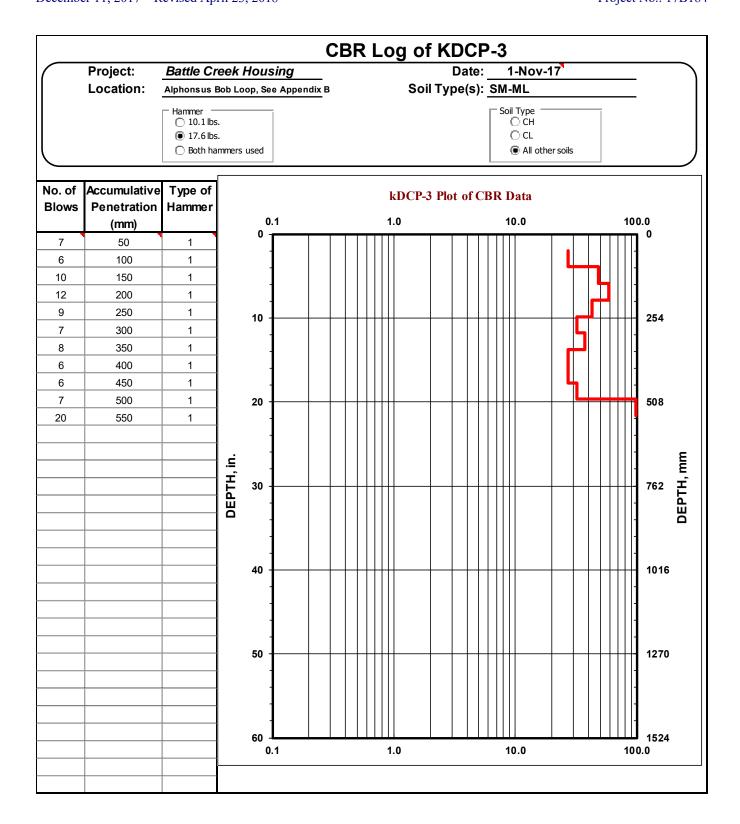


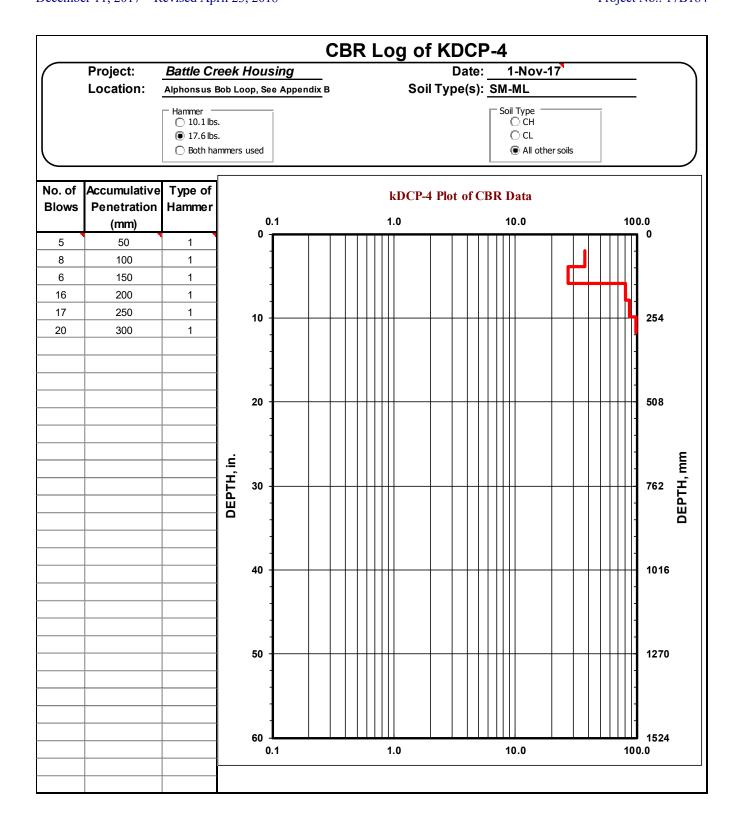


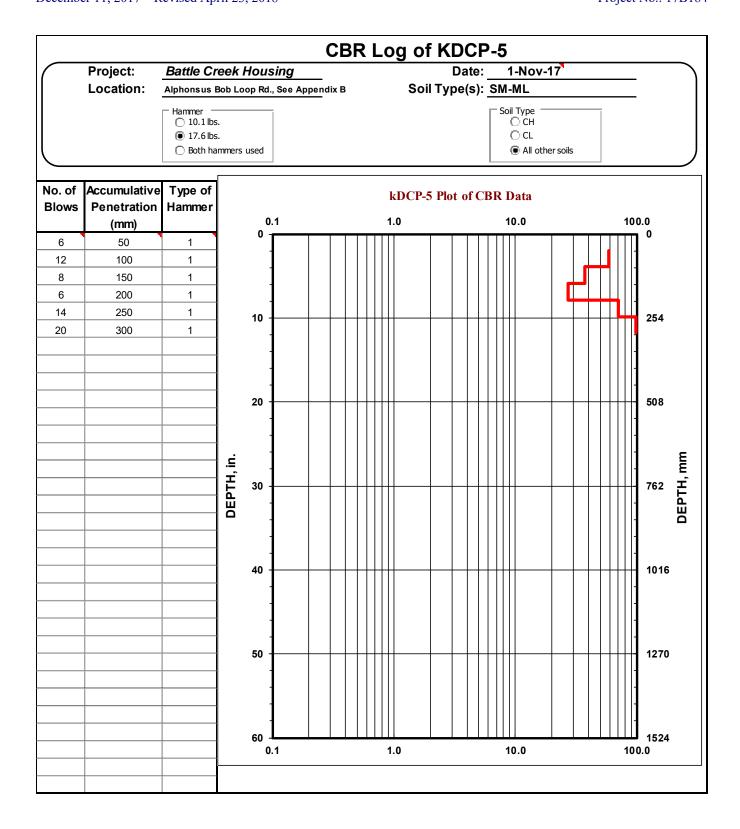


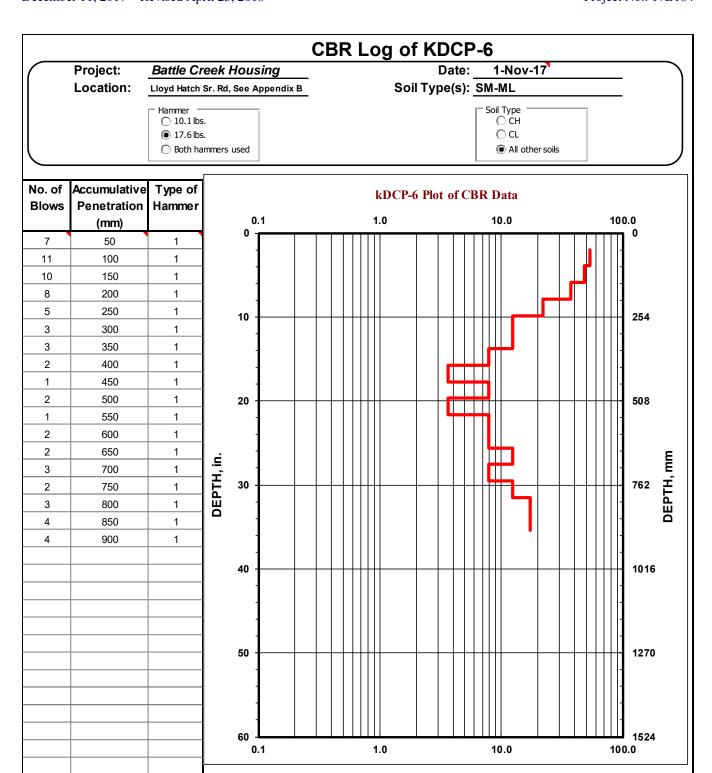


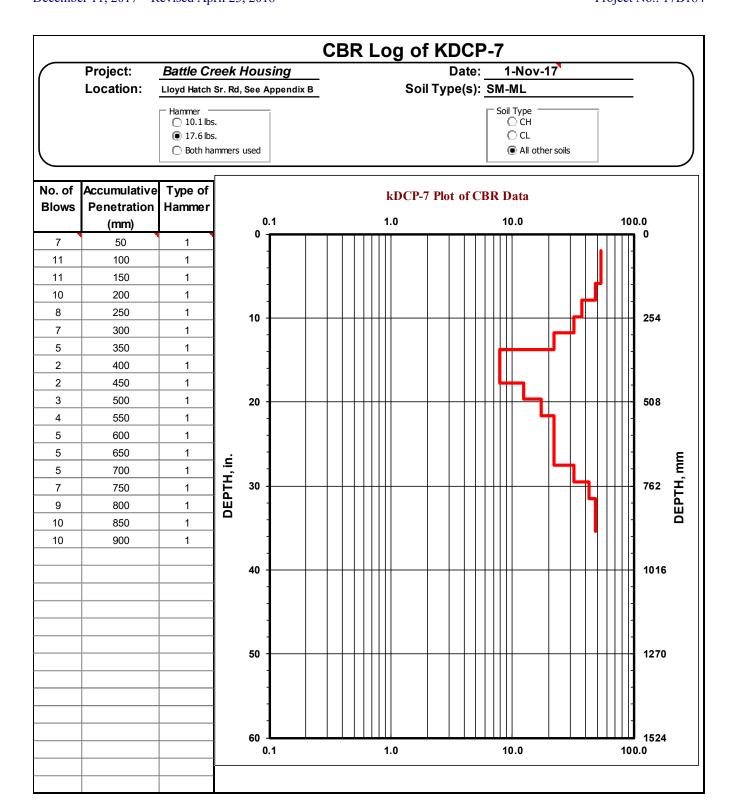


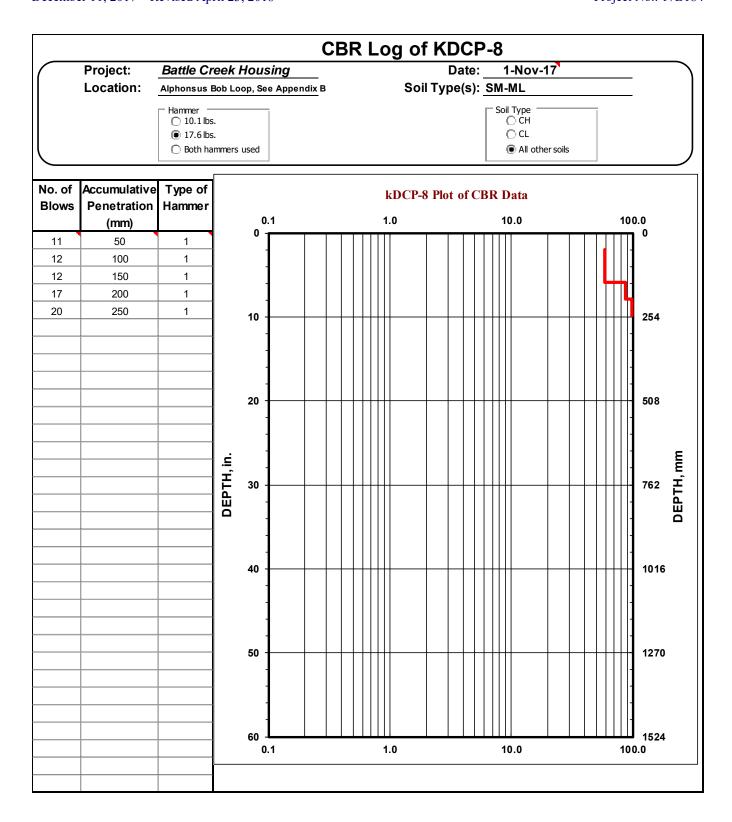


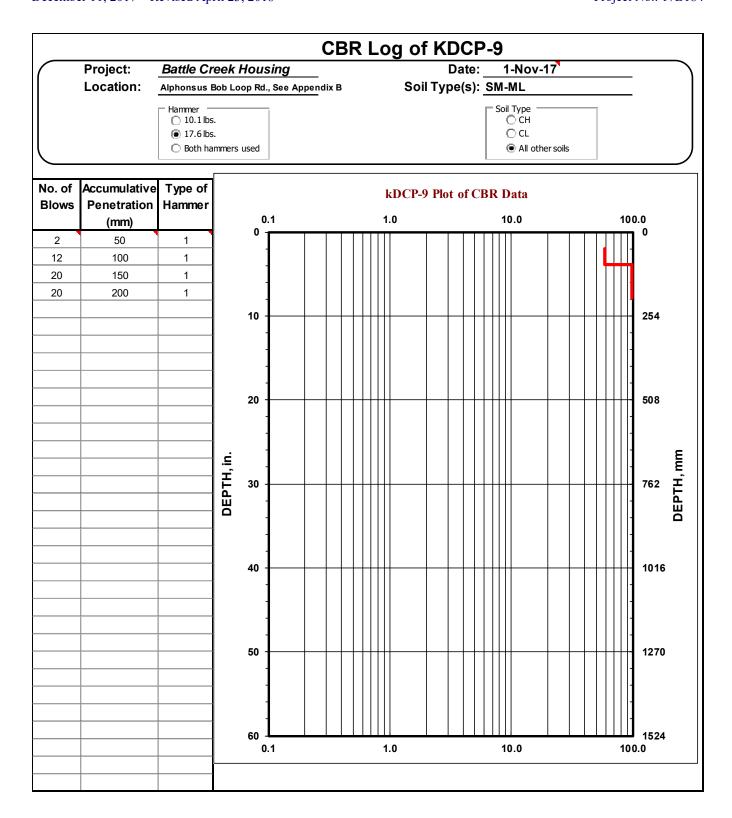


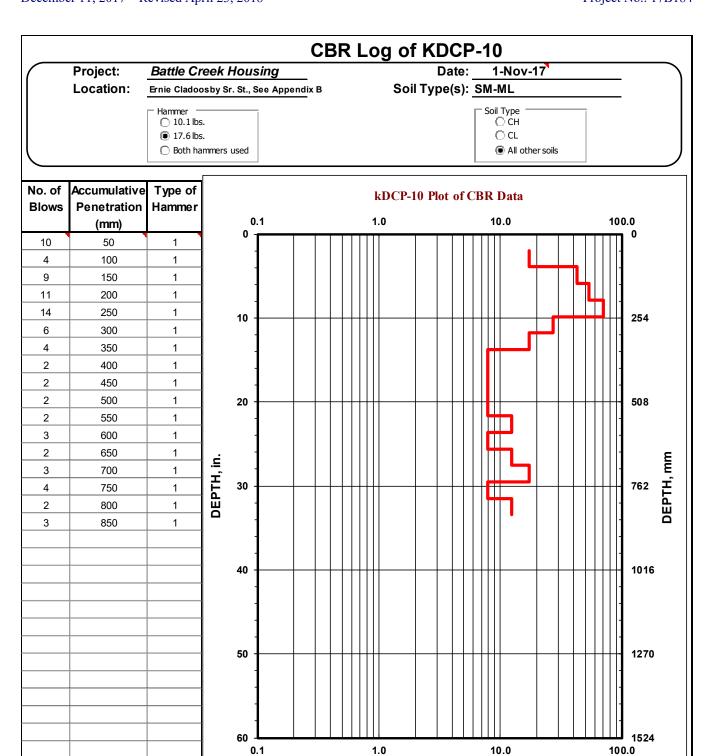


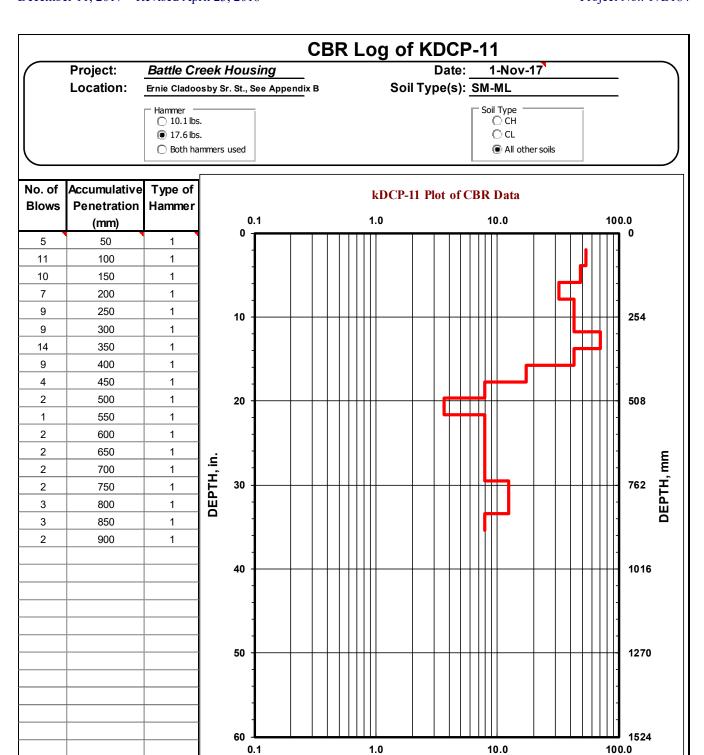


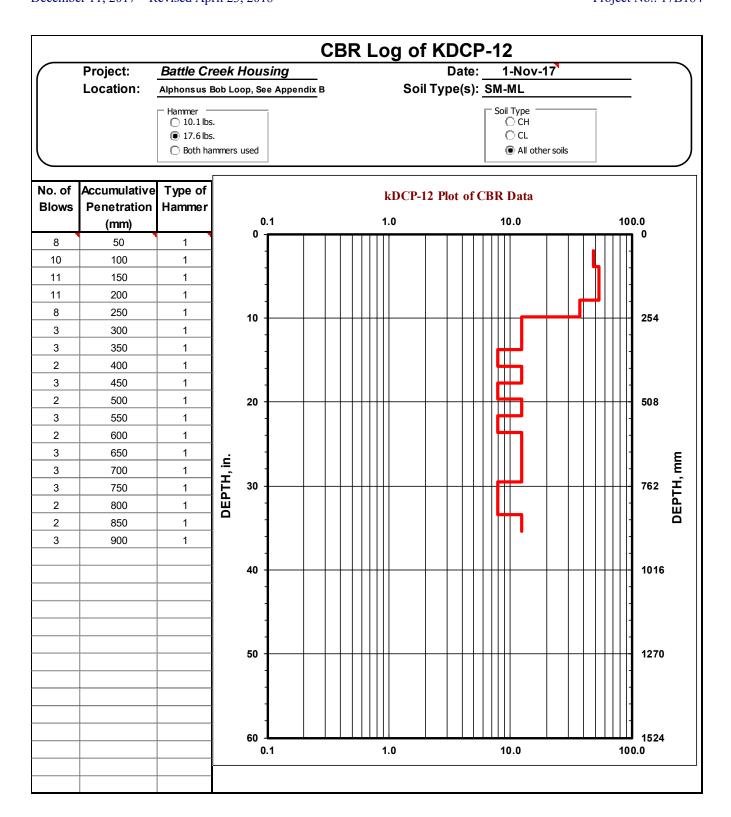


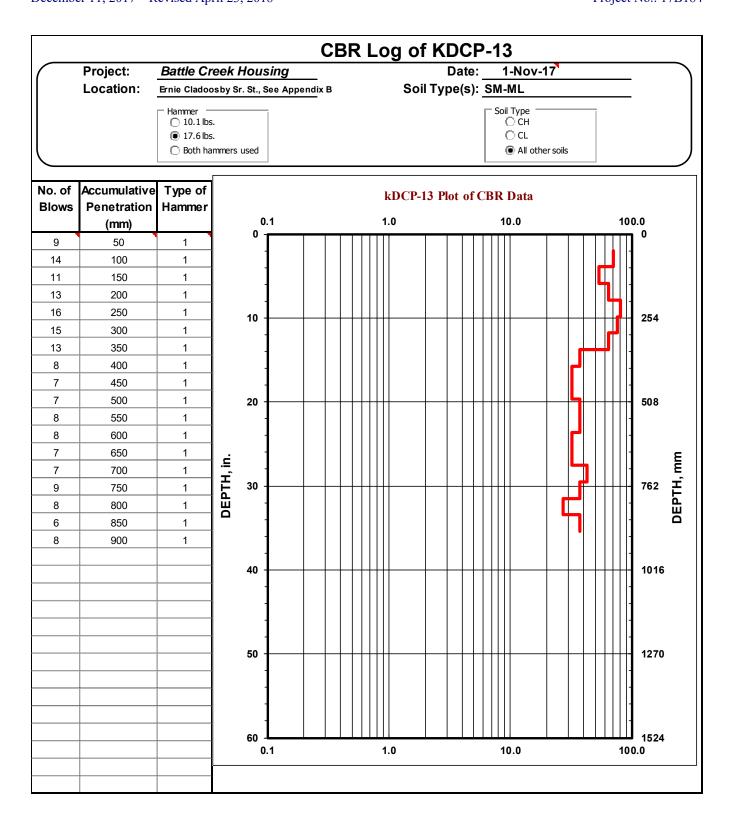


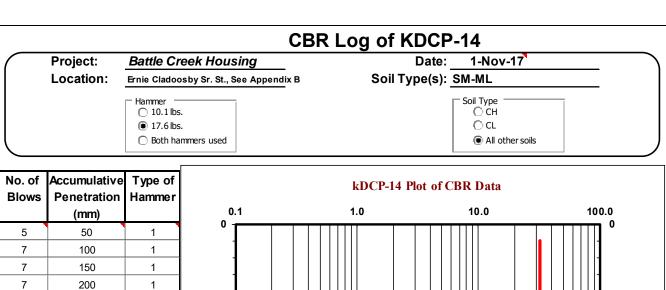


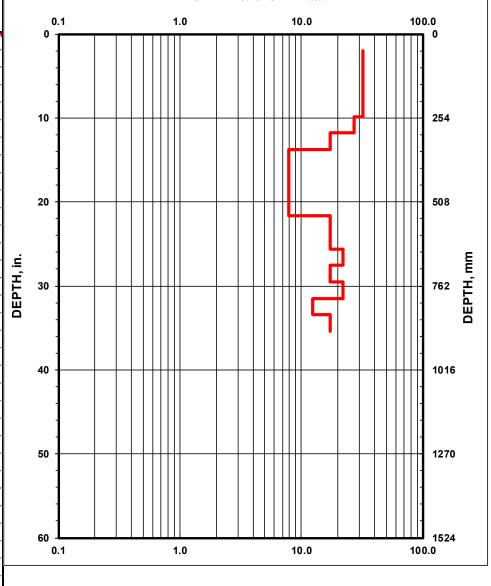


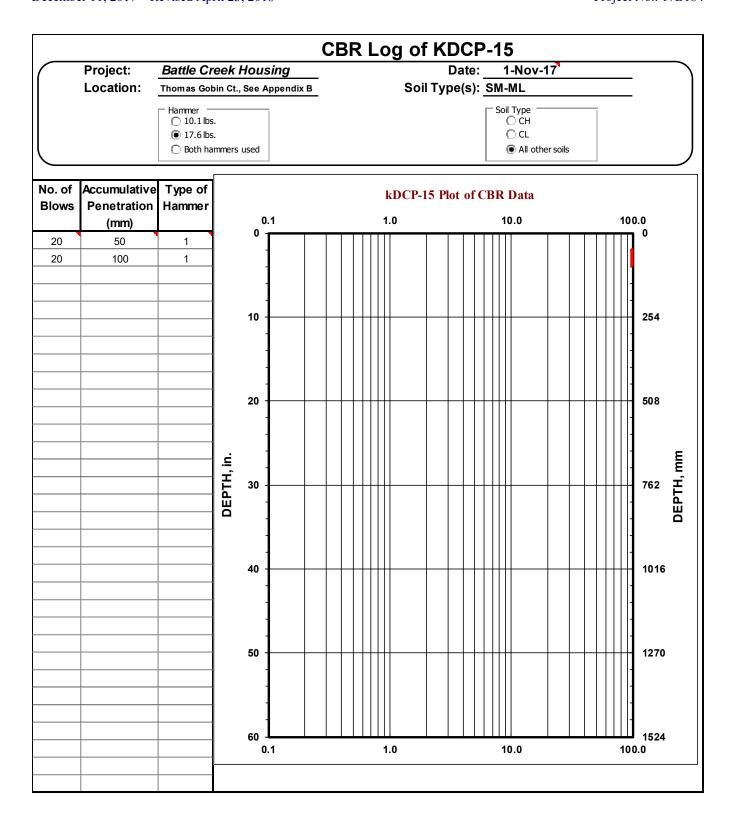


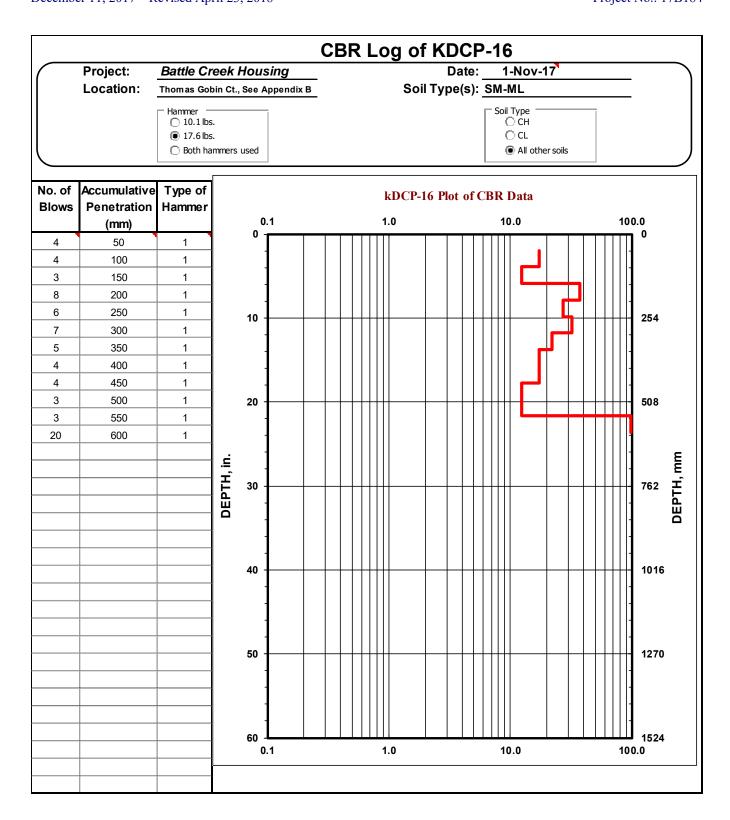


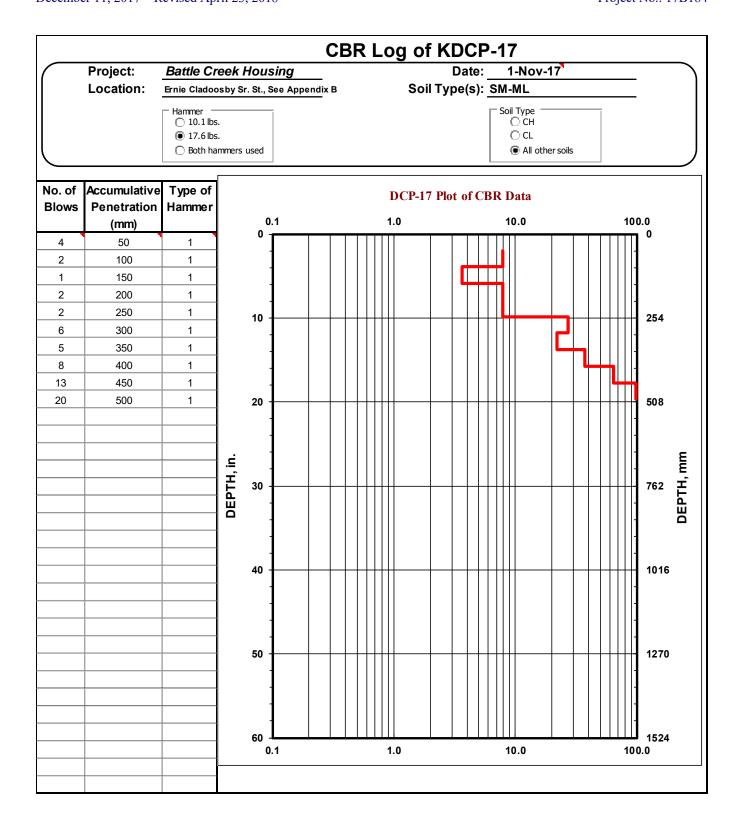


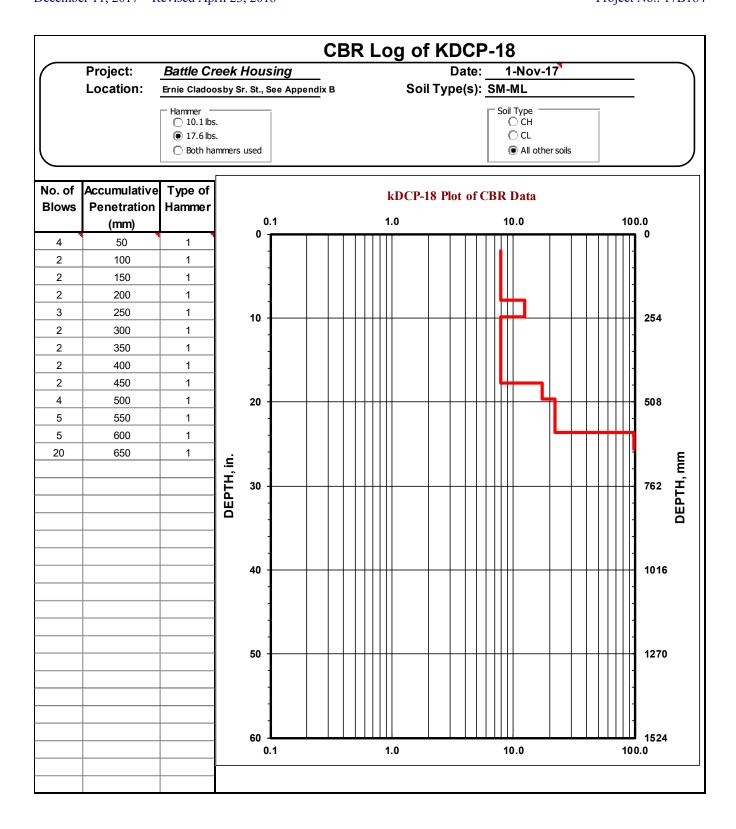


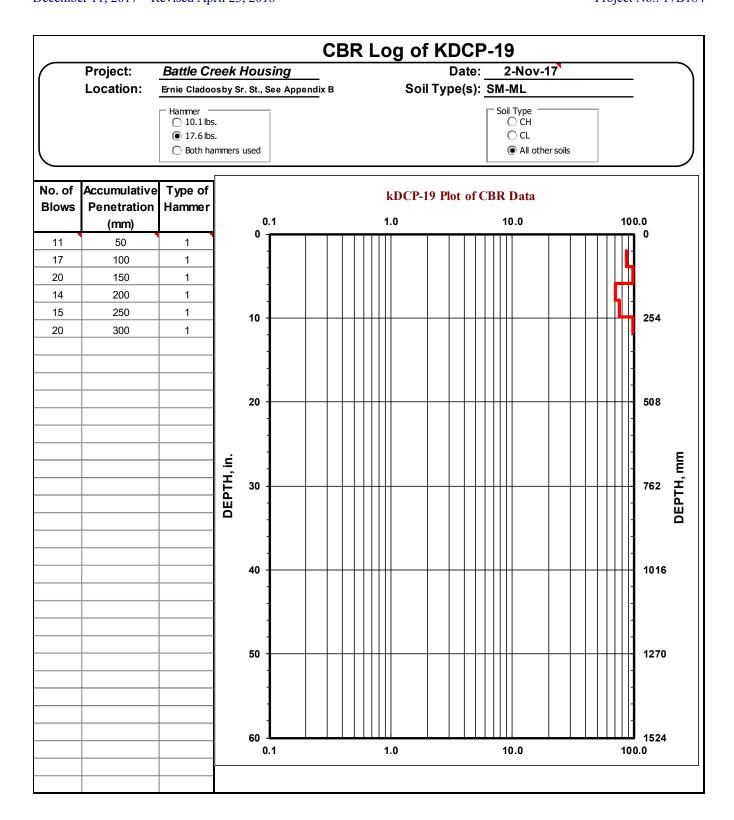


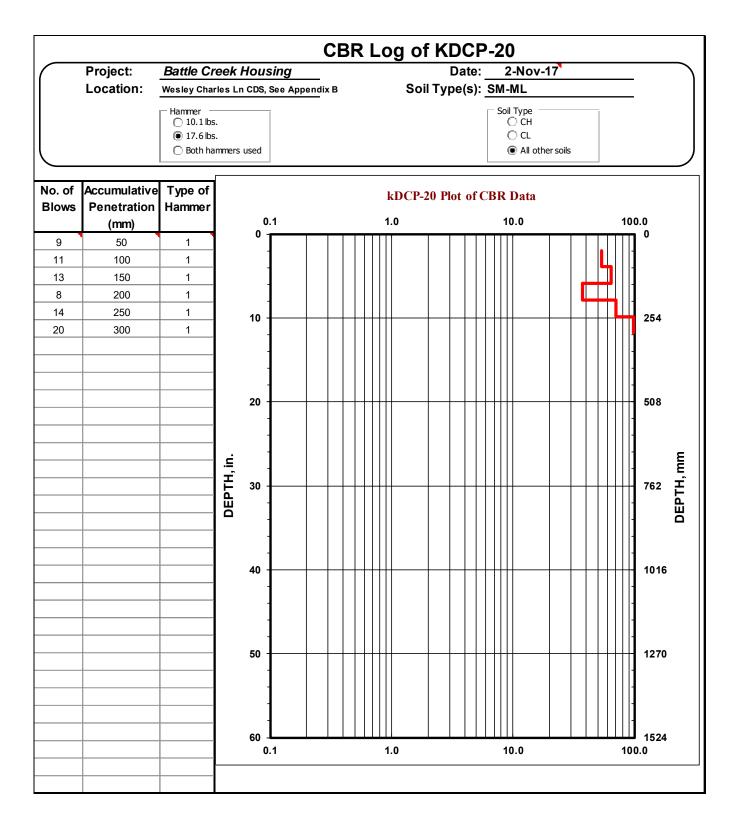


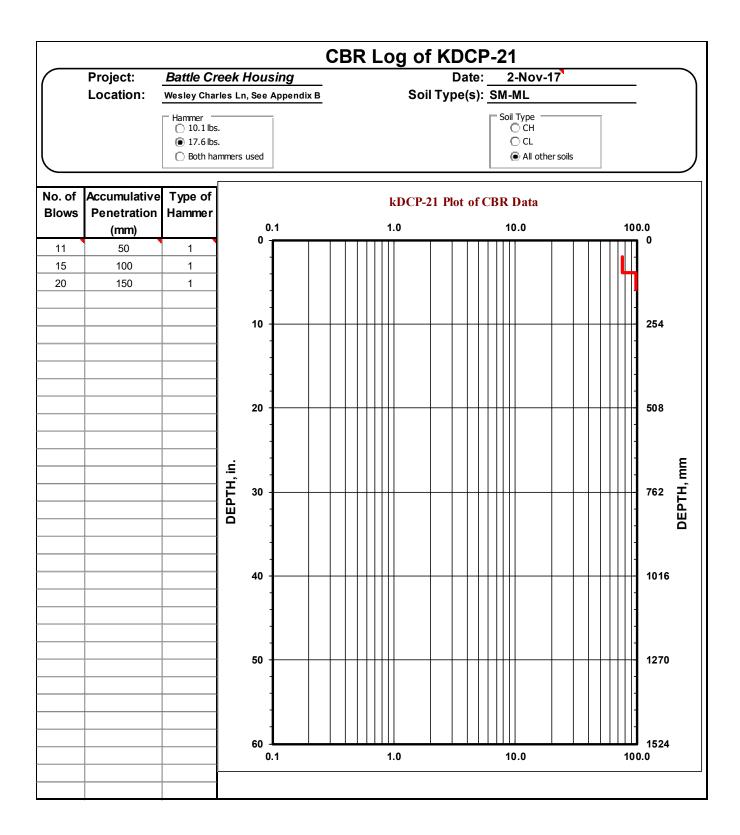


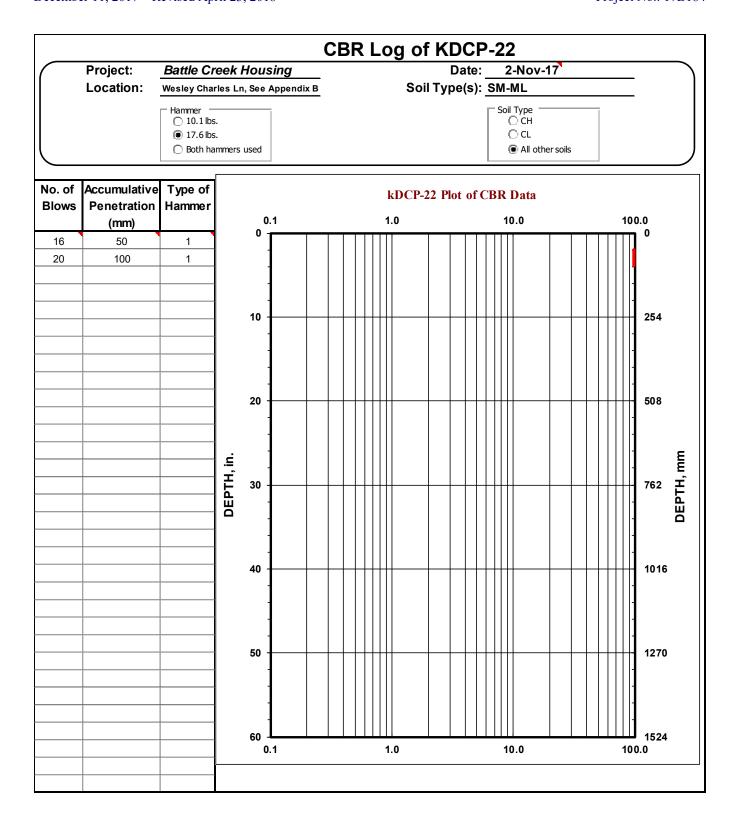


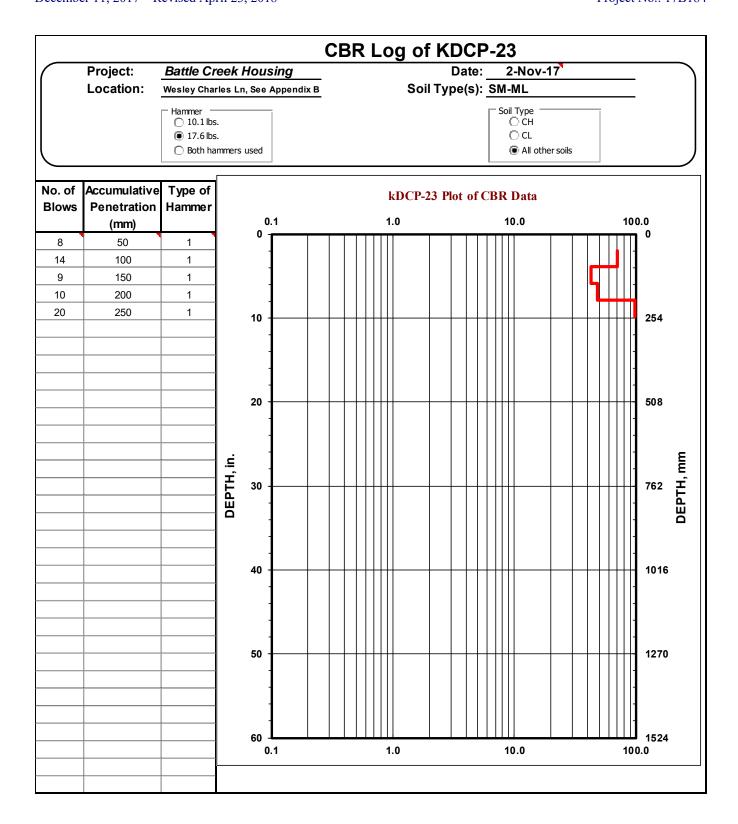


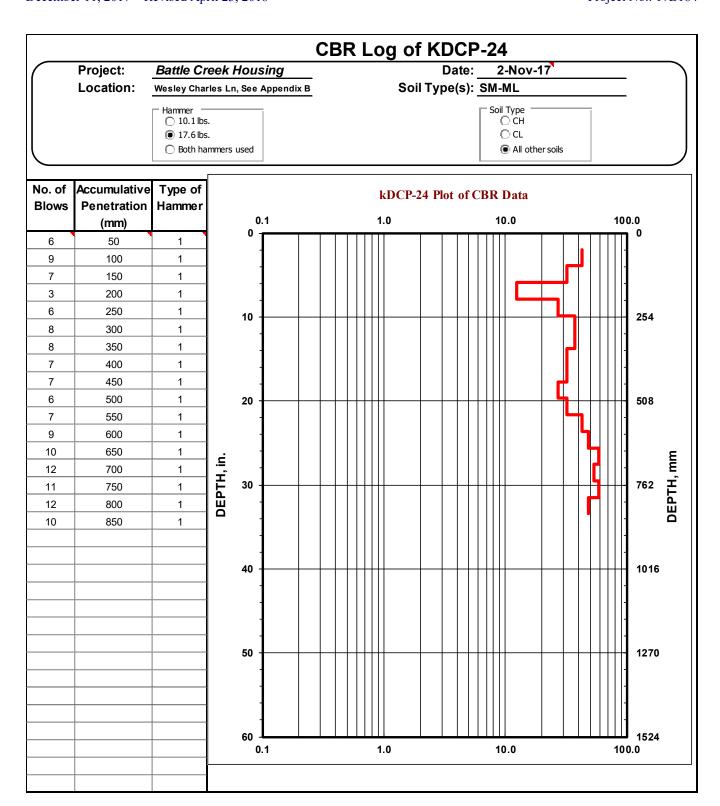


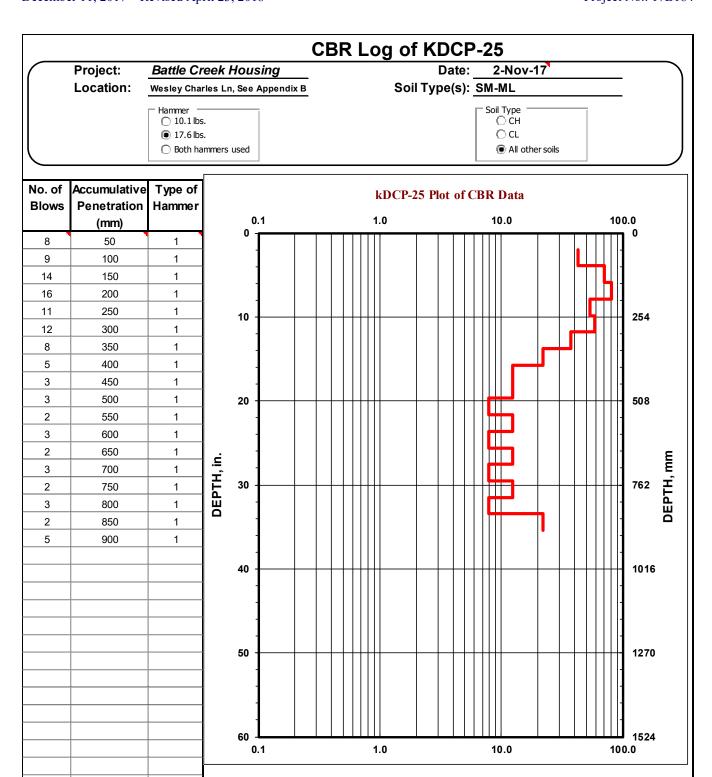


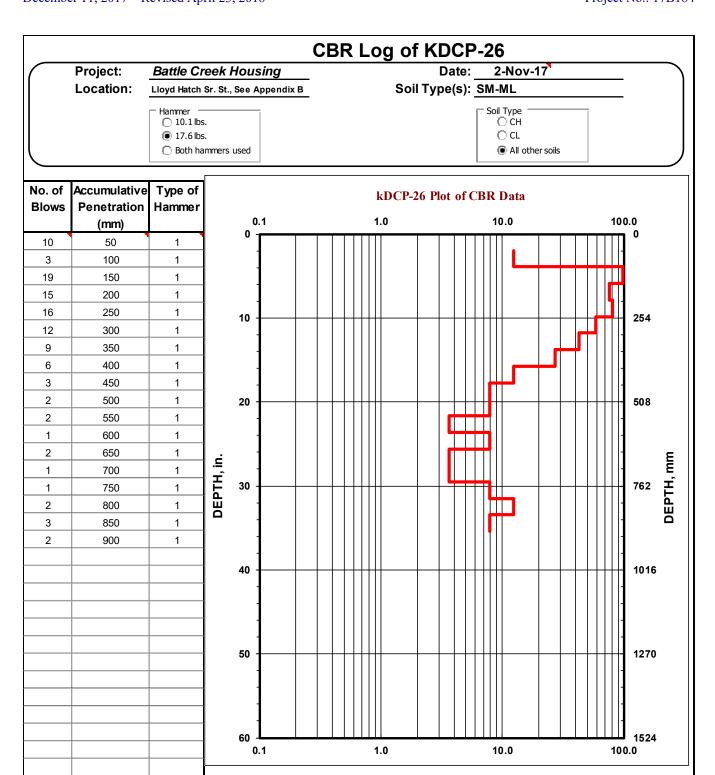


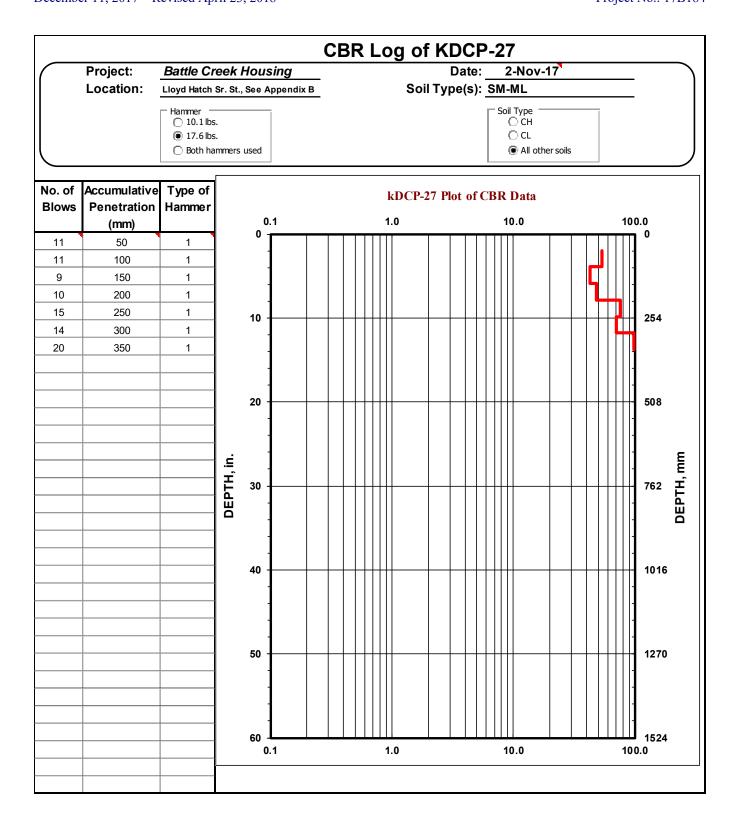


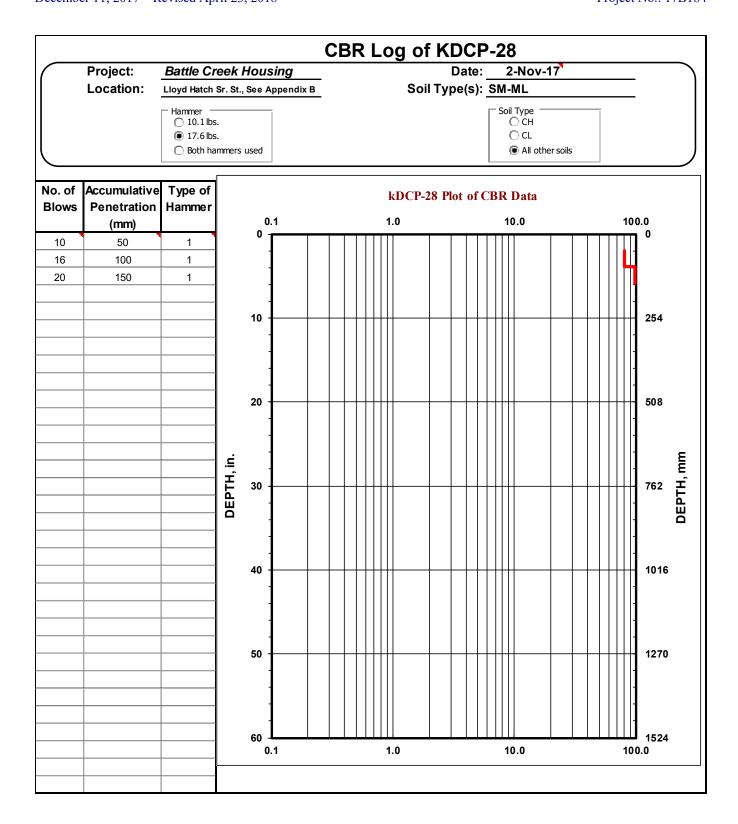


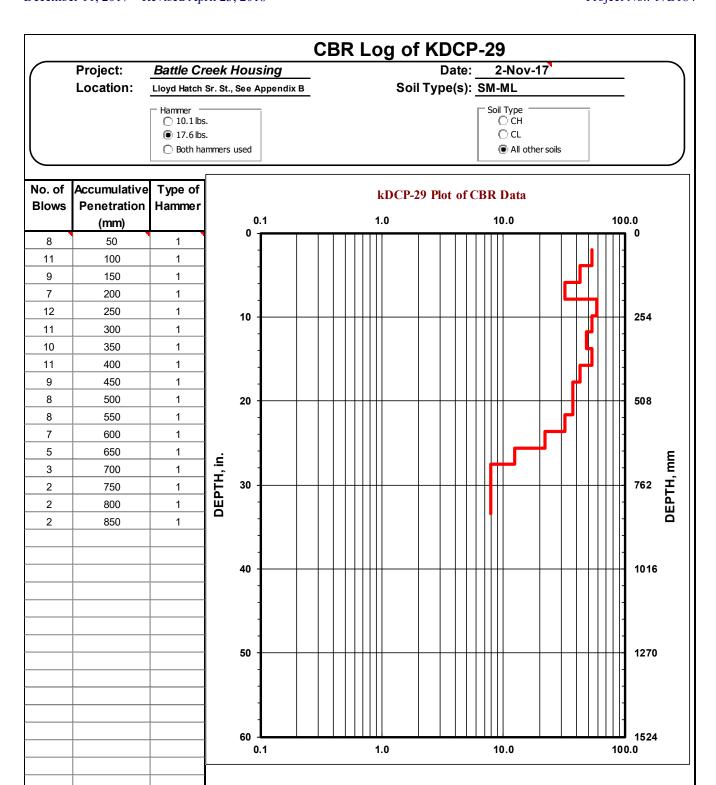


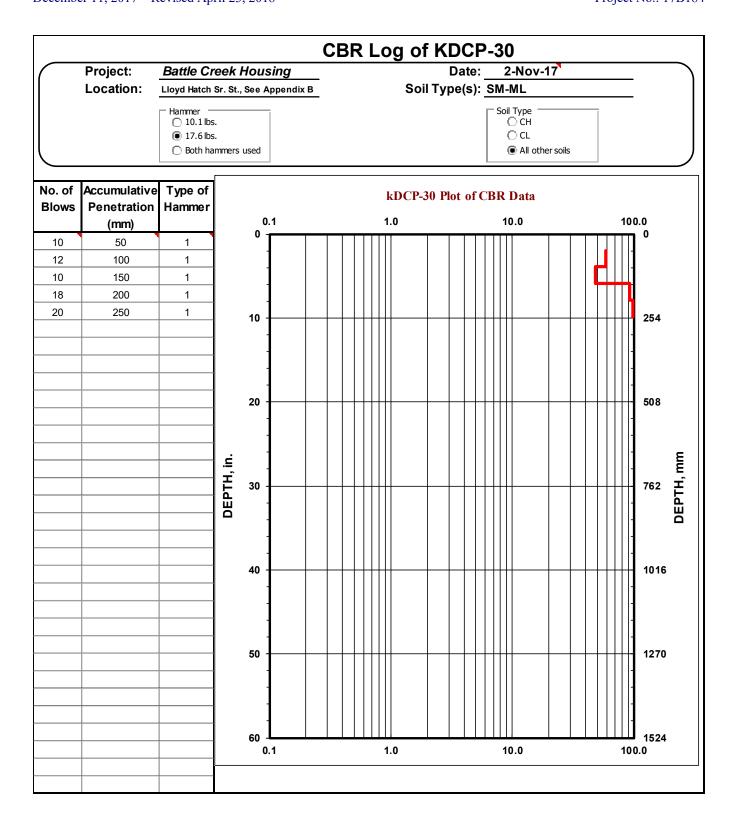


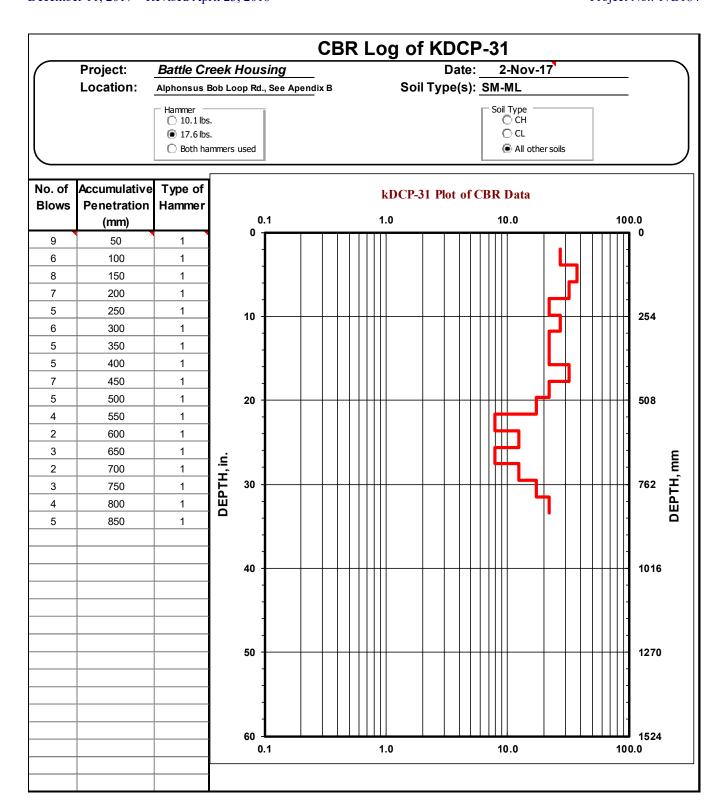


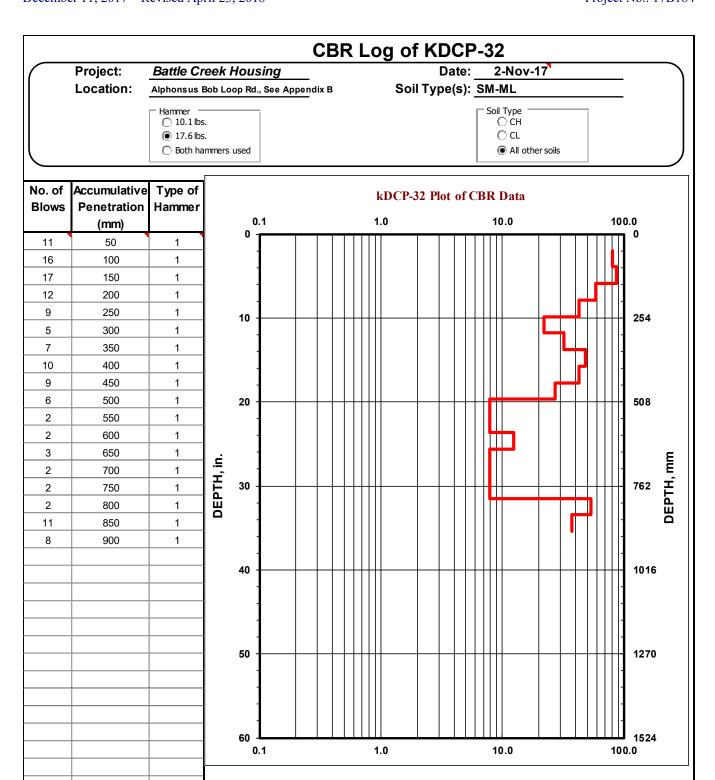


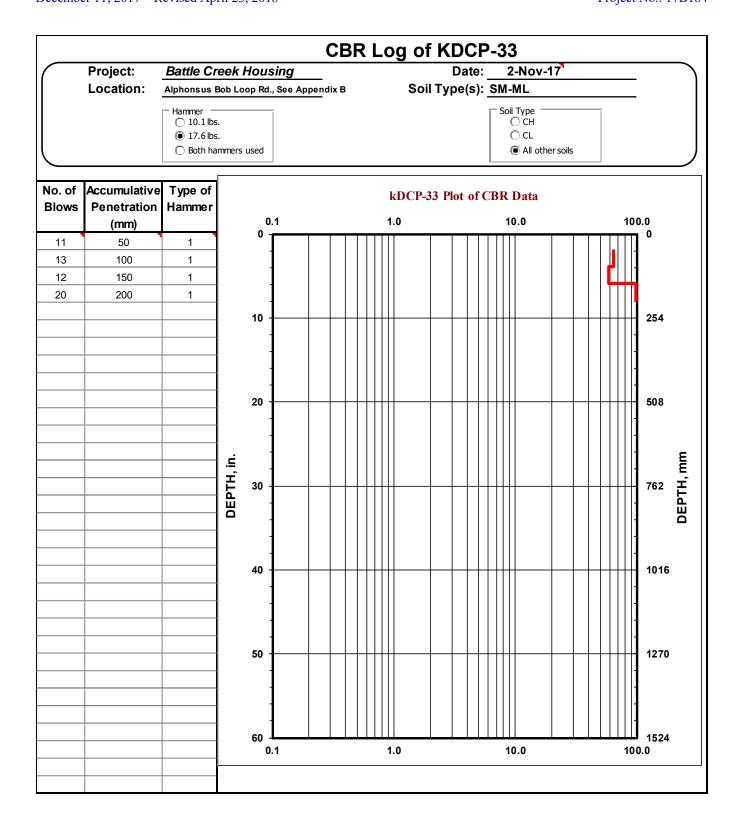












# **Appendix D. LABORATORY RESULTS**

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.

Project: Battle Creek Geotech Project #: 17B184

Client: Gray and Osbourne Source: B-2 @ 2.5' Sample#: B17-1233

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 Sample Color: brown



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821 D₍₅₎= 0.016 mm

Specifications No Specs

Sample Meets Specs? N/A

% Gravel = 0.9%  $D_{(10)} = 0.033$  mm % Sand = 76.4%  $D_{(15)} = 0.049$  mm % Silt & Clay = 22.7%  $D_{(30)} = 0.094$  mm  $D_{(50)} = 0.146$  mm Liquid Limit = n/a Plasticity Index = n/a  $D_{(60)} = 0.204$  mm Sand Equivalent = n/a $D_{(90)} = 0.401$  mm Fracture %, 1 Face = n/a Dust Ratio = 8/33 Fracture % 2+ Faces = n/a

Coeff. of Curvature, C_C = 1.31 Coeff. of Uniformity,  $C_U = 6.19$ Fineness Modulus = 0.86 Plastic Limit = n/a

Moisture %, as sampled = 18.1% Req'd Sand Equivalent = Req'd Fracture %, 1 Face =

Req'd Fracture %, 2+ Faces =

						st Ratio = 8/33	Fractu	re %, 2+ Face	es = n/a	R
					ASTM C-136	6, ASTM D-6913				
		Actual	Interpolated					Grain Size Distribu	ution	
		9	Cumulative			Į.				
	Size	Percent	Percent	Specs	Specs		16 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	* * * * * * * * * * * * * * * * * * *	£ 20222	2000
US	Metric	Passing	Passing	Max	Min	100%		. S S ≥ ₹ *	4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	* * 4.4.1
12.00"	300.00		100%	100.0%	0.0%					
10.00"	250.00		100%	100.0%	0.0%		<u> </u>			1 1
8.00"	200.00		100%	100.0%	0.0%	90%	<del> </del>	<del>         </del>	<del>       </del>	+#
6.00"	150.00		100%	100.0%	0.0%		}			
4.00"	100.00		100%	100.0%	0.0%	80%	<u> </u>			1 1
3.00"	75.00		100%	100.0%	0.0%	80%	FT MINITE	TIIIIII		T
2.50"	63.00		100%	100.0%	0.0%				1 11111	1 1
2.00"	50.00		100%	100.0%	0.0%	70%	<b> </b>	<del></del>	4	4
1.75"	45.00		100%	100.0%	0.0%		<u> </u>			d II
1.50"	37.50		100%	100.0%	0.0%		<u> </u>			V I
1.25"	31.50		100%	100.0%	0.0%	60%	<del></del>	<del>        </del>	+	<b>\</b>
1.00"	25.00		100%	100.0%	0.0%	₽	f			À
3/4"	19.00		100%	100.0%	0.0%	Bulssa 4% 20%	F			1
5/8"	16.00		100%	100.0%	0.0%	¥R 50%	<u> </u>	†		11
1/2"	12.50		100%	100.0%	0.0%					1
3/8"	9.50		100%	100.0%	0.0%	40%	<u> </u>	<del>        </del>	1 11111111	<b>∔-</b> 1
1/4"	6.30		100%	100.0%	0.0%					1 1
#4	4.75	99%	99%	100.0%	0.0%		<u> </u>			1
#8	2.36		99%	100.0%	0.0%	30%	<del></del>	┾╍╍╣╫╫┼┼┼╌		+
#10	2.00	99%	99%	100.0%	0.0%		F			
#16	1.18		96%	100.0%	0.0%	20%	f			1 1
#20	0.850		95%	100.0%	0.0%	20%		T	T-1111111	1
#30	0.600		94%	100.0%	0.0%					
#40	0.425	94%	94%	100.0%	0.0%	10%	<u> </u>		.4	<b>↓</b> ∦
#50	0.300		75%	100.0%	0.0%					
#60	0.250		67%	100.0%	0.0%		<u> </u>			1
#80	0.180		56%	100.0%	0.0%	0%	100.000	10,000	1.000	0.10
#100	0.150	52%	52%	100.0%	0.0%		133.300	14000	1.000	0.10
#140	0.106		35%	100.0%	0.0%	I		Particle Size	(mm)	

100.0%

100.0%

our reports is reserved pending our written approval.

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Comments:

0.090

0.075

Reviewed by:

#170

#200

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22.7%

Materials Testing & Consulting, Inc. 777 Chrysler Drive

Burlington, WA 98233

Lab Sample: B-2 @ 2.5' Battle Creek Housing Area Geotechnical Investigation Tulalip, WA

Project: Battle Creek Geotech Project #: 17B184

Client: Gray and Osbourne Source: B-2 @ 5.0' Sample#: B17-1234 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
Sample Color:
gray-brown



#### ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications No Specs

Sample Meets Specs ? N/A

 $D_{(5)} = 0.012$  mm % Gravel = 1.5%  $D_{(10)} = 0.024$  mm % Sand = 67.8%  $D_{(15)} = 0.037$  mm % Silt & Clay = 30.7%  $D_{(30)} = 0.073$  mm Liquid Limit = n/a  $D_{(50)} = 0.135$  mm Plasticity Index = n/a  $D_{(60)} = 0.192$  mm Sand Equivalent = n/a  $D_{(90)} = 0.804$  mm Fracture %, 1 Face = n/a Dust Ratio = 23/66 Fracture %, 2+ Faces = n/a

 $\begin{aligned} & \text{Coeff. of Curvature, C}_{C} = 1.15 \\ & \text{Coeff. of Uniformity, C}_{U} = 7.85 \\ & \text{Fineness Modulus} = 0.96 \\ & \text{Plastic Limit} = n/a \end{aligned}$ 

Moisture %, as sampled = 20.2% Req'd Sand Equivalent = ₹ Req'd Fracture %, 1 Face = ₹ Req'd Fracture %, 2+ Faces = ₹

ASTM C-136, ASTM D-6913
-------------------------

ı						AS I M C-130
ı			Actual	Interpolated		
ı			Cumulative	Cumulative		
ı	Sieve	Size	Percent	Percent	Specs	Specs
ı	US	Metric	Passing	Passing	Max	Min
ı	12.00"	300.00		100%	100.0%	0.0%
ı	10.00"	250.00		100%	100.0%	0.0%
ı	8.00"	200.00		100%	100.0%	0.0%
ı	6.00"	150.00		100%	100.0%	0.0%
ı	4.00"	100.00		100%	100.0%	0.0%
ı	3.00"	75.00		100%	100.0%	0.0%
ı	2.50"	63.00		100%	100.0%	0.0%
ı	2.00"	50.00		100%	100.0%	0.0%
ı	1.75"	45.00		100%	100.0%	0.0%
ı	1.50"	37.50		100%	100.0%	0.0%
ı	1.25"	31.50		100%	100.0%	0.0%
ı	1.00"	25.00		100%	100.0%	0.0%
ı	3/4"	19.00		100%	100.0%	0.0%
ı	5/8"	16.00		100%	100.0%	0.0%
ı	1/2"	12.50		100%	100.0%	0.0%
ı	3/8"	9.50		100%	100.0%	0.0%
ı	1/4"	6.30		100%	100.0%	0.0%
ı	#4	4.75	99%	99%	100.0%	0.0%
ı	#8	2.36		96%	100.0%	0.0%
ı	#10	2.00	96%	96%	100.0%	0.0%
ı	#16	1.18		92%	100.0%	0.0%
ı	#20	0.850		90%	100.0%	0.0%
ı	#30	0.600		89%	100.0%	0.0%
ı	#40	0.425	88%	88%	100.0%	0.0%
ı	#50	0.300		73%	100.0%	0.0%
1	#60	0.250		67%	100.0%	0.0%
ı	#80	0.180		59%	100.0%	0.0%
1	#100	0.150	55%	55%	100.0%	0.0%
1						1

41%

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30.7%

100.0%

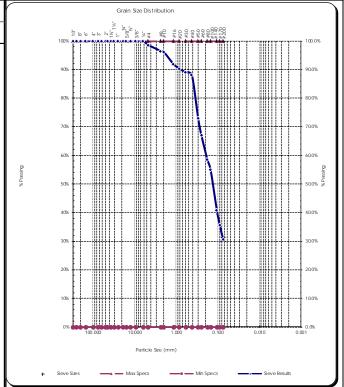
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All results apply only to actual locations and materials our reports is reserved pending our written approval.

0.090

0.075

Magh Bakget and lo

Comments:

#140

#170

#200

Reviewed by:

**Materials Testing & Consulting, Inc.** 

30.7%

777 Chrysler Drive Burlington, WA 98233 Lab Sample: B-2 @ 5.0'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

Project: Battle Creek Geotech

Project#: 17B184 Client: Gray and Osbourne Source: B-3 @ 5.0'

Sample#: B17-1235

Date Received: 6-Nov-17 Sampled By: K. Parker Date Tested: 8-Nov-17 Tested By: M. Carrillo

Visual Identification
Sandy Silt and Clay
Sample Color:
brown



Specifications

S pecifications No Specs

Sample Meets Specs? N/A

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a Coeff. of Curvature,  $C_C = 1.50$ Coeff. of Uniformity,  $C_U = 6.00$ 

Fineness M odulus = 0.41 Plastic Limit = n/a sture %, as sampled = 23.5%

Moisture %, as sampled = 23.5% Req'd Sand Equivalent = F Req'd Fracture %, 1 Face = F

Req'd Fracture %, 2+ Faces =

Dust Ratio = 73/99
ASTM C-136, ASTM D-6913

 $D_{(90)} = 0.317$  mm

					AS 1 W C-130
		Actual	Interpolated		
		Cumulative	Cumulative		
Sieve	Size	Percent	Percent	Specs	Specs
US	Metric	Passing	Passing	Max	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%	100.0%	0.0%
3/4"	19.00	100%	100%	100.0%	0.0%
5/8"	16.00		100%	100.0%	0.0%
1/2"	12.50	99%	99%	100.0%	0.0%
3/8"	9.50	99%	99%	100.0%	0.0%
1/4"	6.30		99%	100.0%	0.0%
#4	4.75	99%	99%	100.0%	0.0%
#8	2.36		98%	100.0%	0.0%
#10	2.00	98%	98%	100.0%	0.0%
#16	1.18		97%	100.0%	0.0%
#20	0.850		96%	100.0%	0.0%
#30	0.600		96%	100.0%	0.0%
#40	0.425	95%	95%	100.0%	0.0%
#50	0.300		89%	100.0%	0.0%
#60	0.250		87%	100.0%	0.0%
#80	0.180		83%	100.0%	0.0%
#100	0.150	82%	82%	100.0%	0.0%

75%

73%

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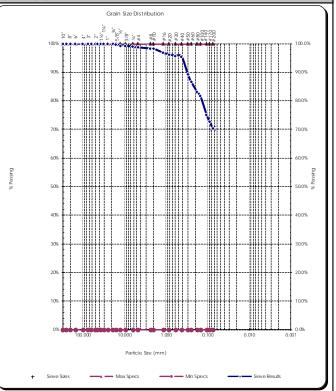
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All results apply only to actual locations and materials

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Negt Galget andlo

Comments:

#140

#170

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Reviewed by:

**Materials Testing & Consulting, Inc.** 

70.4%

777 Chrysler Drive Burlington, WA 98233 Lab Sample: B-3 @ 5.0'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

Project: Battle Creek Geotech
Project #: 17B184

Client: Gray and Osbourne Source: B-4 @ 2.5' Sample#: B17-1236 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

CH, Sandy Fat Clay Sample Color:

gray



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

S pecifications No Specs

No specs

Sample Meets Specs? N/A

 $D_{(5)} = 0.005$  mm % Gravel = 0.4%  $D_{(10)} = 0.011$  mm % Sand = 30.8%  $D_{(15)} = 0.016$  mm % Silt & Clay = 68.7%  $D_{(30)} = 0.033$  mm Liquid Limit = 60.0%  $D_{(50)} = 0.055$  mm Plasticity Index = 32.8%  $D_{(60)} = 0.065$  mm Sand Equivalent = n/a  $D_{(90)} = 1.254$  mm Fracture %, 1 Face = n/a Dust Ratio = 34/41 Fracture %, 2+ Faces = n/a

Coeff. of Curvature,  $C_C = 1.50$ Coeff. of Uniformity,  $C_U = 6.00$ Fineness Modulus = 0.77 Plastic Limit = 27.3%

Moisture %, as sampled = 30.5% Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %

Req'd Fracture %, 2+ Faces =

					ASTM C-136	36, ASTM D-6913
		Actual	Interpolated			Grain Size Distribution
		Cumulative	Cumulative			
Sieve		Percent	Percent	Specs	Specs	10 10 10 10 10 10 10 10 10 10
US	Metric	Passing	Passing	Max	Min	100% ***********************************
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%	90%
6.00"	150.00		100%	100.0%	0.0%	
4.00"	100.00		100%	100.0%	0.0%	I con I illini i illini N i illini i illini i locon
3.00"	75.00		100%	100.0%	0.0%	0000
2.50"	63.00		100%	100.0%	0.0%	300
2.00"	50.00		100%	100.0%	0.0%	70%
1.75"	45.00		100%	100.0%	0.0%	70%
1.50"	37.50		100%	100.0%	0.0%	
1.25"	31.50		100%	100.0%	0.0%	60% Di
1.00"	25.00		100%	100.0%	0.0%	E.
3/4"	19.00		100%	100.0%	0.0%	D
5/8"	16.00		100%	100.0%	0.0%	\$ 50%
1/2"	12.50		100%	100.0%	0.0%	\$ 50% 50% 500%
3/8"	9.50		100%	100.0%	0.0%	40%
1/4"	6.30		100%	100.0%	0.0%	40%
#4	4.75	100%	100%	100.0%	0.0%	
#8	2.36		97%	100.0%	0.0%	30%
#10	2.00	96%	96%	100.0%	0.0%	
#16	1.18		89%	100.0%	0.0%	20%
#20	0.850		87%	100.0%	0.0%	2008
#30	0.600		84%	100.0%	0.0%	20%
#40	0.425	83%	83%	100.0%	0.0%	10% +
#50	0.300		79%	100.0%	0.0%	
#60	0.250		77%	100.0%	0.0%	
#80	0.180		75%	100.0%	0.0%	100.000 10.000 1.000 0.100 0.010 0.001
#100	0.150	74%	74%	100.0%	0.0%	2.50.5.4)
#140	0.106		71%	100.0%	0.0%	Particle Size (mm)
#170	0.090		70%	100.0%	0.0%	
#200	0.075	68.7%	68.7%	100.0%	0.0%	+ Sieve Sizes — Max Specs — Min Specs — Sieve Results
Copyright	Spears Engineering &	Technical Services PS,	1996-98			

All results apply only to actual locations and materials tested.
our reports is reserved pending our written approval.

Reviewed by:

Comments:

Materials Testing & Consulting, Inc.

777 Chrysler Drive Burlington, WA 98233 Lab Sample: B-4 @ 2.5'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

# ASTM D4318 - Liquid Limit, Plastic Limit and Plasticity Index of Soils

Project: Battle Creek Geotech

Project #: 17B184 Client: Gray and Osbourne Source: B-4 @ 2.5' Sample #: B17-1236 Date Received: 6-Nov-17

Sampled By: K. Parker Date Tested: 8-Nov-17 Tested By: M. Carrillo Unified Soils Classification System, ASTM D-2487

CH, Sandy Fat Clay Sample Color

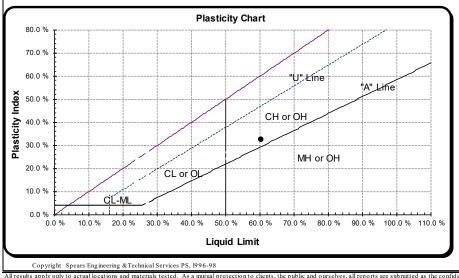
gray

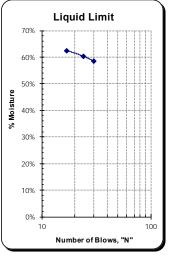
Liquid Limit Determination							
	#1	#2	#3	#4	#5	#6	
Weight of Wet Soils + Pan:	33.64	31.03	32.66				
Weight of Dry Soils + Pan:	28.48	26.73	27.93				
Weight of Pan:	19.66	19.61	20.35				
Weight of Dry Soils:	8.82	7.12	7.58				
Weight of Moisture:	5.16	4.30	4.73				
% Moisture:	58.5 %	60.4 %	62.4 %				
Number of Blows:	30	24	17				

Liquid Limit @ 25 Blows: 60.0 %
Plastic Limit: 27.3 %
Plasticity Index, I_P: 32.8 %

#### **Plastic Limit Determination** #2 #5 Weight of Wet Soils + Pan: 33.33 33.45 Weight of Dry Soils + Pan: 32.27 32.30 Weight of Pan: 28.35 28.12 Weight of Dry Soils: 3.92 4.18 Weight of Moisture: 1.06 1 15 % Moisture: 27.0 % 27.5 %







All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

or statements, concluded to extract the most regarding our reports a reserved pointing our written appr

Materials Testing & Consulting, Inc.

Comments:

777 Chrysler Drive Burlington, WA 98233 Lab Sample: B-4 @ 2.5'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

Project: Battle Creek Geotech

Project#: 17B184 Client: Gray and Osbourne Source: B-5 @ 2.5' Sample#: B17-1237 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

, ASTM D-6913



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications
No Specs

Sample Meets Specs? N/A

Coeff. of Curvature,  $C_C = 0.49$ Coeff. of Uniformity,  $C_U = 18.31$ Fineness Modulus = 2.35 Plastic Limit = n/a Moisture %, as sampled = 12.5%

Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces = Req'd Fracture %, 2+ Fa

					Dus
					ASTM C-136,
		Actual Cumulative	Interpolated Cumulative		
Sieve	Size	Percent	Percent	Specs	Specs
US	Metric	Passing	Passing	Max	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	96%	96%	100.0%	0.0%
3/4"	19.00	91%	91%	100.0%	0.0%
5/8"	16.00		89%	100.0%	0.0%
1/2"	12.50	86%	86%	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		75%	100.0%	0.0%
#10	2.00	74%	74%	100.0%	0.0%
#16	1.18		69%	100.0%	0.0%
#20	0.850		67%	100.0%	0.0%

65%

64%

56%

52%

48%

46%

41%

39%

37.4%

100.0%

100.0%

100.0%

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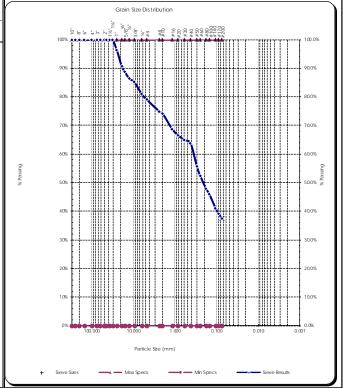
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tll results apply only to actual locations and materials tested. As a mutual protection to clients, the public and owrselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding

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Comments:

#30

#40

#50

#60

#80

#100

#140

#170

#200

0.600

0.425

0.300

0.250

0.180

0.150

0.106

0.090

0.075

Reviewed by:

Materials Testing & Consulting, Inc.

64%

46%

37.4%

777 Chrysler Drive Burlington, WA 98233 Lab Sample: B-5 @ 2.5'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Project: Battle Creek Geotech Project #: 17B184 Client: Gray and Osbourne

Source: B-6 @ 2.5' Sample#: B17-1238

Date Received: 6-Nov-17 Sampled By: K. Parker Date Tested: 8-Nov-17 Tested By: M. Carrillo

Visual Identification Silt and Clay with Sand Sample Color:



### Specifications

No Specs

Sample Meets Specs? N/A

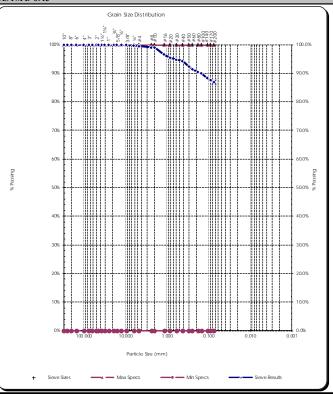
 $D_{(5)} = 0.004$ % Gravel = 0.5%  $D_{(10)} = 0.009$ % Sand = 12.5%  $D_{(15)} = 0.013$  mm % Silt & Clay = 87.0%  $D_{(30)} = 0.026$  mm Liquid Limit = n/a  $D_{(50)} = 0.043$  mm Plasticity Index = n/a  $D_{(60)} = 0.052$  mm Sand Equivalent = n/a  $D_{(90)} = 0.155$  mm Fracture %, 1 Face = n/a Dust Ratio = 12/13

Fineness Modulus = 0.28 Plastic Limit = n/a Moisture %, as sampled = 25.7% Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =

Coeff. of Curvature,  $C_C = 1.50$ 

Coeff. of Uniformity,  $C_U = 6.00$ 

ASTM C-136, ASTM D-6913 Actual Interpolated Cumulativ Cumulative Sieve Size Percent Specs US Metric Passing Max Min 12.00' 300.00 100% 100.0% 0.0% 10.00" 250.00 100% 100.0% 0.0% 100% 8.00" 200.00 100.0%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% 100.0% 0.0% 3/4" 19.00 100% 100.0% 0.0%5/8" 16.00 100% 100.0% 0.0%1/2" 12.50 100% 100.0% 0.0% 3/8" 9.50 100% 100% 100.0% 0.0%1/4" 6.30 100% 100.0% 0.0% #4 4.75 99% 100.0% 0.0%#8 2.36 99% 100.0% 0.0% #10 99% 99% 100.0% 0.0% 2.00 #16 1.18 96% 100.0% 0.0% 95% #20 0.850 100.0% 0.0% #30 0.600 95% 100.0% 0.0% #40 0.425 94% 94% 100.0% 0.0% #50 0.300 92% 100.0% 0.0% #60 0.250 91% 100.0%0.0%#80 0.180 90% 100.0% 0.0%#100 0.150 90% 100.0% 0.0%#140 88% 100.0% 0.0% 0.106 88% 0.0% #170 0.090 100.0%



Fracture %, 2+ Faces = n/a

Comments:

0.075

ears Engineering

Megh Baket and

Reviewed by:

#200

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233

87.0%

87.0%

100.0%

Lab Sample: B-6 @ 2.5' Battle Creek Housing Area Geotechnical Investigation Tulalip, WA

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

**Project:** Battle Creek Geotech **Project #:** 17B184

Client: Gray and Osbourne Source: B-7 @ 5.0' Sample#: B17-1239 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



### Specifications

No Specs

Sample Meets Specs? N/A

Coeff. of Curvature,  $C_C = 0.29$ Coeff. of Uniformity,  $C_U = 35.45$ Fineness Modulus = 2.66

Plastic Limit = n/a

Moisture %, as sampled = 7.2%

Req'd Sand Equivalent =

Req'd Fracture %, 1 Face =

					ASTM C-136	6, ASTM D-6913						
		Actual	Interpolated					Grain Size Distrib	oution			
	G.		Cumulative	-	1 0	-		· .				
Sieve		Percent	Percent	Specs	Specs		.01.8	0 4° 12′ 2′ 8′ 8′ 4. 4 2 2′ 2′ 2′ 2′ 2′ 2′ 2′ 2′ 2′ 2′ 2′ 2′ 2′	£ 528388	85458		
US	Metric	Passing	Passing	Max	Min	1	00%		<del></del>	<del>*****</del>	TTITTTT-T	T 100.0%
12.00"	300.00		100%	100.0%	0.0%			- IIIII   <b>\</b>				}
10.00"	250.00		100%	100.0%	0.0%							1
8.00"	200.00		100%	100.0%	0.0%		90%			/ <b>       </b>	! <b>!!!!!!</b>	90.0%
6.00"	150.00		100%	100.0%	0.0%			\				
4.00"	100.00		100%	100.0%	0.0%		30%			<u>          </u>	<u> </u>	80.0%
3.00"	75.00		100%	100.0%	0.0%		H	- IIII				1
2.50"	63.00		100%	100.0%	0.0%		H	<b>\</b>				1
2.00"	50.00		100%	100.0%	0.0%		70%		<u>'</u>		<del></del>	70.0%
1.75"	45.00		100%	100.0%	0.0%				<b>\</b>			- 1
1.50"	37.50		100%	100.0%	0.0%				N			1
1.25"	31.50		100%	100.0%	0.0%		50%		X		<del>                                  </del>	60.0%
1.00"	25.00	100%	100%	100.0%	0.0%	B us						1
3/4"	19.00	97%	97%	100.0%	0.0%	% Passing	50%		.iiiiii.Ni	<u>            </u>		50.0%
5/8"	16.00		92%	100.0%	0.0%	•						1
1/2"	12.50	87%	87%	100.0%	0.0%							1
3/8"	9.50	82%	82%	100.0%	0.0%		10%			A-IIIII-I	<del></del>	40.0%
1/4"	6.30		78%	100.0%	0.0%					· <b>\</b>		1
#4	4.75	75%	75%	100.0%	0.0%		-			<b>1</b>		
#8	2.36		71%	100.0%	0.0%		30%			r  <b> </b>	<u> </u>	30.0%
#10	2.00	70%	70%	100.0%	0.0%							1
#16	1.18		62%	100.0%	0.0%		20%					20.0%
#20	0.850		59%	100.0%	0.0%							1 200%
#30	0.600		57%	100.0%	0.0%							1
#40	0.425	55%	55%	100.0%	0.0%		10%			<b>├┼╟┼┼┼┼-</b>	╂╌╌╫╫╟╂┼┼┼╌┼	10.0%
#50	0.300		48%	100.0%	0.0%							- 1
#60	0.250		46%	100.0%	0.0%							
#80	0.180		42%	100.0%	0.0%		0%	100.000 10.000	1.000	0.100	0.010	0.0%
#100	0.150	40%	40%	100.0%	0.0%							
#140	0.106		33%	100.0%	0.0%			Particle Siz	e (mm)			
#170	0.090		31%	100.0%	0.0%							
#200	0.075	28.7%	28.7%	100.0%	0.0%	+ S	eve Sizes	—▲ — Max Specs	— • — Min S	Specs —	Sieve Results	

our reports is reserved pending our written approval.

Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive

Burlington, WA 98233

Lab Sample: B-7 @ 5.0'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

Project: Battle Creek Geotech Project #: 17B184

Client: Gray and Osbourne Source: B-10 @ 2.5' Sample#: B17-1240 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 Sample Color: brown



#### ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications No Specs

Sample Meets Specs? N/A

 $D_{(5)} = 0.009$  mm % Gravel = 0.4%  $D_{(10)} = 0.017$  mm % Sand = 56.1%% Silt & Clay = 43.6%  $D_{(15)} = 0.026$  mm  $D_{(30)} = 0.052$  mm Liquid Limit = n/a $D_{(50)} = 0.118$  mm Plasticity Index = n/a  $D_{(60)} = 0.196$  mm Sand Equivalent = n/a  $D_{(90)} = 0.877$  mm Fracture %, 1 Face = n/a Dust Ratio = 1/2 Fracture %, 2+ Faces = n/a

Coeff. of Curvature,  $C_C = 0.79$ Coeff. of Uniformity,  $C_U = 11.39$ Fineness Modulus = 0.94 Plastic Limit = n/a

Moisture %, as sampled = 16.1% Req'd Sand Equivalent = ►

Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =

					Du	st Ratio =	1/2
					ASTM C-130	5, ASTM I	)-6913
		Actual	Interpolated				
		7	Cumulative			<u> </u>	
Sieve		Percent	Percent	Specs	Specs		
US	Metric	Passing	Passing	Max	Min	1	10
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%	100.0%	0.0%	g _u	
3/4"	19.00		100%	100.0%	0.0%	% Passing	
5/8"	16.00		100%	100.0%	0.0%	*	
1/2"	12.50		100%	100.0%	0.0%		
3/8"	9.50	100%	100%	100.0%	0.0%		
1/4"	6.30		100%	100.0%	0.0%		
#4	4.75	100%	100%	100.0%	0.0%		
#8	2.36		99%	100.0%	0.0%		3
#10	2.00	99%	99%	100.0%	0.0%		
#16	1.18		92%	100.0%	0.0%		
#20	0.850		90%	100.0%	0.0%		-
	I		I	I	I	ii .	

88%

86%

72%

66%

58%

55%

48%

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43.6%

100.0%

100.0%

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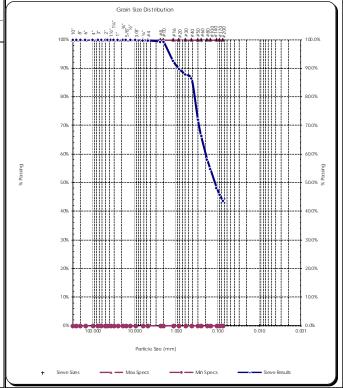
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All results apply only to actual locations and materials our reports is reserved pending our written approval.

0.600

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0.180

0.150

0.106

0.090

0.075

Comments:

#30

#40

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#200

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233

86%

55%

43.6%

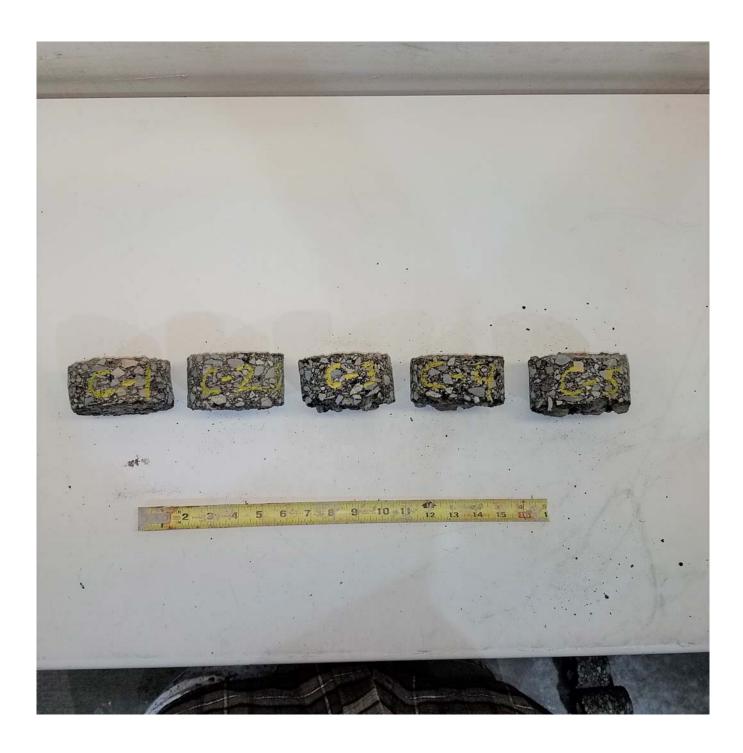
Lab Sample: B-10 @ 2.5'
Battle Creek Housing Area
Geotechnical Investigation
Tulalip, WA

# **APPENDIX F. ASPHALT CONDITIONS**

**Table 3: Auger Borehole and Core Exploration Data** 

Borehole Location #	Asphalt Thickness (Inches)	Base Material Fill Thickness/Type (Inches)
B-1	2.0	4.25/ CSTC
B-2	1.5	3.25/ CSTC
B-3	2.0	1.5/ CSTC
B-4	1.75	3.5/ CSTC
B-5	2.0	3.5/ CSTC
B-6	3.0	4.75/ CSTC
B-7	N/A	30/Pit Run
B-8	2.0	3.5/ CSTC 6.0/ Pit Run
B-9	1.5	3.5/ CSTC 8.0/ Pit Run
B-10	2.5	6.0/ CSTC
	Asphalt Thickness	Base Fill Material Type
Core Location #	(Inches)	v -
Core Location #	(Inches)	(Inches  CSTC
C-1	1.5	(Inches
C-1 C-2	1.5	(Inches  CSTC
C-1 C-2 C-3	1.5 2.0 2.0	CSTC CSTC
C-1 C-2 C-3 C-4	1.5 2.0 2.0 1.75	CSTC CSTC CSTC
C-1 C-2 C-3	1.5 2.0 2.0 1.75 2.0	CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6	1.5 2.0 2.0 1.75 2.0 2.25	CSTC CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6 C-7	1.5 2.0 2.0 1.75 2.0 2.25 1.75	CSTC CSTC CSTC CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6 C-7 C-8	1.5 2.0 2.0 1.75 2.0 2.25 1.75 1.5	CSTC CSTC CSTC CSTC CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6 C-7	1.5 2.0 2.0 1.75 2.0 2.25 1.75	CSTC CSTC CSTC CSTC CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6 C-7 C-8 C-9	1.5 2.0 2.0 1.75 2.0 2.25 1.75 1.5 2.0	CSTC CSTC CSTC CSTC CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6 C-7 C-8 C-9 C-10	1.5 2.0 2.0 1.75 2.0 2.25 1.75 1.5 2.0 2.0	CSTC CSTC CSTC CSTC CSTC CSTC CSTC CSTC
C-1 C-2 C-3 C-4 C-5 C-6 C-7 C-8 C-9 C-10 C-11	1.5 2.0 2.0 1.75 2.0 2.25 1.75 1.5 2.0 2.0 1.5	CSTC CSTC CSTC CSTC CSTC CSTC CSTC CSTC

Core Location #	Asphalt Thickness (Inches)	Base Material Fill Type (Inches)
C-15	4.5	CSTC
C-16	3.0	CSTC
C-17	3.25	CSTC
C-18	3.5	CSTC
C-19	3.0	CSTC
C-20	2.75	CSTC
C-21	2.25	CSTC
C-22	3.0	CSTC
C-23	1.75	CSTC
C-24	2.0	CSTC
C-25	1.75	CSTC
C-26	1.75	CSTC
C-27	1.5	CSTC
C-28	2.0	CSTC
C-29	2.25	CSTC
C-30	2.0	CSTC
C-31	2.25	CSTC
C-32	1.5	CSTC
C-33	1.5	CSTC



**Photo I:** Photo of asphalt cores C-1 to C-5 from left to right.



**Photo J:** Photo of asphalt cores C-6 to C-10 from left to right.



**Photo K:** Photo of asphalt cores C-11 to C-15 from left to right.



**Photo L:** Photo of asphalt cores C-16 to C-20 from left to right.



**Photo M:** Photo of asphalt cores C-21 to C-25 from left to right.



**Photo N:** Photo of asphalt core C-26 to C-30 from left to right.

Project No.: 17B184



**Photo O:** Photo of asphalt cores 31 to 33 from left to right.

# Materials Testing & Consulting, Inc.

Geotechnical Engineering • Materials Testing • Special Inspection • Environmental Consulting



December 21, 2017

**Kevin Brown** Gray & Osborne, Inc. 3710 168th Street, Building B, Suite 210 Arlington, WA 98223

Cc: Deborah Bray, Transportation Manager, Tulalip Tribe

Mission Hill Road - Geotechnical Engineering Report

Mission Hill Road - Tulalip, WA

MTC Project No.: 17B184-02

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.

Mutu.M

Senior Project Geologist

**Engineering Manager** 

Medhanie Tecle, P.E.

Attachment: Geotechnical Engineering Report

# REPORT OF GEOTECHNICAL **ENGINEERING INVESTIGATION**

### MISSION HILL ROAD

TULALIP, WASHINGTON

### Prepared for:

**Kevin Brown** Gray & Osborne, Inc. 3710 168th Street, Building B, Suite 210 Arlington, WA 98223

Prepared by:



12-21-2017

Kurt W. Parker

12-21-2017

Kurt W. Parker, L.G. Senior Project Geologist

Medhanie Tecle, P.E. Engineering Manager

### **MATERIALS TESTING & CONSULTING, INC. (MTC)**

777 Chrysler Drive

Burlington, Washington 98233

Phone: (360) 755-1990 Fax: (360) 755-1980

December 21, 2017

MTC Project Number: 17B184-02

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### 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 Mission Hill Road Pavement Improvements. The project area is located east of Mission Beach Road on Mission Hill Road in Tulalip, Washington. A project vicinity map and aerial photo site plan of the project site are shown in Figures 1 and 2 of Appendices A and B.

### 1.2 PROJECT DESCRIPTION

It is our understanding that the project consists of redevelopment of one roadway segment of Mission Hill Road within the Mission Beach neighborhood area. Proposed improvements include full pavement reconstruction, along with partial redevelopment of underground utilities. Development locations will include an approximately 600-foot long section extending from the intersection of Mission Beach Road and Mission Hill Road east and south along the arching roadway corridor. Mission Hill Road in this vicinity has two distinct components: a northern, more recently developed corridor that connects to Marine Drive in the north; and an older section that runs uphill from Mission Beach Road to the southern entrance to the Tulalip Recovery Center (Figure 2). This report will focus solely on the southern section. The subject street is currently developed with pavement, curbs, partial sidewalks and utility infrastructure. Parameters for this project include: pavement recommendations for full roadway reconstruction, and discussion and recommendations for a persistent spring or seep feature and its relation to the existing storm drain utility passage, where applicable.

Actual roadway alterations have not been determined at the time of this report. The client, however, provided a Request for Proposals for development areas during generation of Proposal for Services documentation by MTC at the commencement of the project. Also, based on our correspondence with the client, it is assumed that the roadway will undergo complete replacement as recommended within this report. Select locations may be considered for preservation methods that adjoin the main project boundaries. Pavement and site subgrade conditions were determined by field exploration, auger borings, asphalt coring and other subsurface exploration 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 the subject roadway at targeted locations for reconstruction and for partial redevelopment of underground utilities, and 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 and October 23rd, 2017. Field work for data collection on October 18th involved directing and logging of five (5) 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 to visually confirm asphalt thicknesses and depths of imported or fill soils. All borehole explorations were conducted to planned depths and borings were terminated in generally 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 planned depths ranging from 11.5 feet to 16.5 feet BPG. Boreholes were initiated by cutting an approximately 10-inch diameter entry in the existing pavement before auger boring and SPT advancement 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 five to eight feet from the existing curb 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 near the uphill margin of the project, approximately 535 feet from the intersection with Mission Beach Road. Borehole B-2 was advanced at about 445 feet from the Mission Beach Road intersection. Borehole B-3 was advanced at approximately 305 feet from the intersection with Mission Beach Road, with B-4 located at about 200 feet from Mission Beach Road. Borehole B-5 was advanced at approximately 70 feet from the Mission Beach Road intersection. Borehole exploration locations are shown in Appendix B, Figure 3 (Google Maps, 2017).

MTC returned to the site on October 23rd, 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 DCP advancements were performed by MTC staff within cored asphalt locations to evaluate soil consistency, to compare with borehole results and to determine California Bearing Ratio (CBR) values; hence, providing partial data for pavement calculations. Kessler DCP 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 size and scope, seven (7) 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-5). Exploration locations C-1 through C-6 were advanced along Mission Hill Road from about 550 feet from the intersection with Mission Beach Road, downhill along the roadway corridor, with C-6 located about 45 feet from the above stated intersection. Core location C-7 was located about 30 feet south and uphill of C-1, near the project south margin. All test locations generally were located four to six feet off of the paved road margin. Test locations were successful in core and kDCP advancement to maximum extent of equipment, with the exception of C-4 and C-6, which reached shallower refusal via kDCP. This shallow refusal is interpreted to be caused by the intersection with dense native or imported fill materials.

Details of asphalt core/kDCP exploration locations are shown in Appendix B, Figure 4 and are approximate (Google Maps, 2017). If greater precision on the location of individual testing locations are required, we recommend professional survey services be utilized. 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, grain-size distribution analysis via sieve and hydrometer methods and Atterberg Limit analysis. Laboratory test results are presented on test reports included in Figures 6 through 15 of Appendix E.

### 3.0 EXISTING SITE CONDITIONS

### 3.1 SURFACE DESCRIPTION

The project vicinity is within a mixed-use neighborhood immediately to the east of Mission Beach Road. The Mission Beach Cemetery forms the majority of the south and west boundaries of the subject road corridor. Forested tracts bound Mission Hill Road in portions of the north and south margins. The Tulalip Recovery Center is the only major building complex within the immediate project location and is found within lands to the northeast of the roadway. Driveway frontage to this facility, both paved and unpaved is accessed directly from the subject roadway in the central and southern portions. Mission Hill Road continues past the project area to the south and eventually curving to the north, accessing a water tank storage area at the road terminus. Dominantly single-family residences are found to the west and across the street from the lower roadway entrance at the intersection of Mission Beach Road and Mission Hill Road. The project ranges in elevation from approximately 65 feet above sea level at the Mission Beach Road intersection, to about 140 feet above sea level at the projects southern terminus. Grades overall throughout the project area are considered moderate and generally slope to the northwest.

The project as a whole spans approximately 615 linear feet of asphalt-paved roadway. Dates of original construction and more recent modifications to underground utility corridors are unknown at present. All project roadways are heavily cracked and damaged. Potholing and utility trench subsidence were also observed throughout the project area. Numerous asphalt patches existed and are attributed to underground utility maintenance. Curb, gutter and sidewalks appeared to be of varying age at the project site. Some subsidence was noted around manhole access within the roadway. Figures 2 through 4 of Appendix B as well as photographs displayed in Appendix C show details of existing site conditions.

A spring with light seepage, reported by the client to flow all year, was observed daylighting at the downhill terminus of the gravel driveway that accesses the Tulalip Recovery Center at the curb and gutter interface. A detailed discussion of possible water source(s) and potential mitigation will be provided within Sections 3.5 and 5.4 of this report.

Vegetation of the area, at the time of our field explorations, consisted of maintained lawns with some junior deciduous evergreen trees lining the road corridor. Mature native forest was observed further to the south and uphill of the project site. Some mixed-age forest with brushy over growth was noted along the north margin of the lower roadway closest to the junction with Mission Beach Road.

#### 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). The majority of the project area excepting the downhill margins nearest to the Mission Beach Road intersection are mapped as unit Qvt–Pleistocene-Age, Vashon Stade Glacial Till. These deposits are known to mantle ridgetops and upland areas of what is known as the Tulalip Plateau. The unit consists of a heterogeneous mixture of clay-silt, sand, pebbles, cobble and boulders commonly known as diamicton. Some lenses or tongues of stratified material can be found within the unit, especially in its lower extremities. The Vashon till is generally compact and referred to as lodgement till or hardpan due to compaction by the overlying Vashon Glacier, approximately 300 feet thick in this vicinity during the peak of glacial advance in the Puget Sound region. The till typically ranges from 10 to 40 feet thick approximately (Minard, 1985).

The northwestern area of the project along the lowest, downhill portion of Mission Hill Road is mapped containing Unit *Qva*—Advance Outwash of the Vashon Stade. The deposit generally underlies the glacial till regionally. It is described as a thick section of mostly clean pebbly sand with increased gravel higher in the section. Fine-grained sand and silt are also common to the lower part of the unit. 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. 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 northwest of the project site along the immediate coastline north of Tulalip Bay, 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 lowest downhill northwest section of the roadway is 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. Alderwood gravelly sandy loam with 15 to 30 percent slopes is mapped along the southeast margins of the project site in the upland vicinity of the Tulalip Recovery Center. Beyond the slope grade difference, the generally description is nearly identical to the above-described unit. Over a broad

northeast trend within the central portion of the project, *Everett very gravelly sandy loam* is mapped with 8 to 15 percent slopes. The landforms are eskers, kames and moraines and the parent material is sandy and gravelly glacial outwash. A typical profile consists of very gravelly sandy loam from surface to 24 inches depth, with very gravelly loamy sand to 35 inches and extremely cobbly coarse sand to 60 inches. Depth to a restrictive feature is reported as more than 80 inches. It is somewhat excessively drained with a depth to the water table of more than 80 inches. It is a member of Hydrologic Soil Group A.

Soil conditions encountered in the field consisted 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.

### 3.3 SOIL CONDITIONS

A general characterization of on-site soil units encountered during our geotechnical boring exploration at the five 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 of this report addresses 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 $-\frac{1}{2}$ -inch HMA:

Core thicknesses ranged from 2.0 to 3.0 inches in majority across the site at 5 borehole locations (B-1 to B-5). 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 (SW):

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 was generally about 6 inches thick at boreholes B-1 to B-4, with B-5 measured at about 4 inches. 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 – Sandy Silt with Gravel (ML):

Shallow soils encountered in borings were observed to be consistent across boreholes B-1 to B-4 and commonly appeared to be disturbed or reworked native soils. Sandy silt with varying portions of gravel were observed below thin sections of imported fill soils below the road base.

Thicknesses of this section varied between locations but, generally extended from 0.5 to 1.2 feet BPG. No reworked native soils were encountered at B-5, however the variance between intact and disturbed native soil can be debated at this location. Soils generally were medium stiff to very stiff, dry to damp, and varied in color from gray to gray-brown. Soils had minor root fragments and varied but lower percentages of gravel.

### • Native Soils – Silty Sand to Sandy Silt with Gravel, Silty Gravel (SM, ML, GM):

In-situ fine to coarse-grained soils correlated with regional glacial till deposits were encountered at boreholes B-1 to B-4, with upper contacts of 1.0 to 2.0 feet BPG. This unit extended to the maximum depth explored of 11.5 to 16.5 feet BPG at boreholes B-1 to B-3, and to approximately 12.0 feet BPG at B-4. 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 stiff 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 moderately scattered oxidation banding and mottling was observed occasionally throughout the soil column, suggesting development of perched water conditions during wetter periods. A notable soils classification contrast was found at borehole B-3, where a silty gravel unit was logged from about 5.0 to 7.0 feet BPG. In some locations, the borehole was advanced with difficultly through the soil column and sampling proved to be equally as difficult with high blow counts and lower recovery.

### • Native Soils – Silty Sand (SM):

Native coarse-grained soils correlated with regional glacial advance outwash deposits were encountered at boreholes B-4 from 12.0 to 16.5 feet BPG and at B-5, from 0.5 to termination depth at 11.5 feet BPG. This stratum was dominated by silty sand with minor gravel percentages. All native soils were generally medium dense to dense in consistency, dry to damp and varied in color from gray-brown to brown-gray to light gray depending on depth and location. Mottling or oxidation evidence was notably absent throughout. Sand size was mostly in the fine-grained range, with some exceptions. Minor thin silt bands were found locally at B-5 at depths of 5.0 to 8.0 feet.

### 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 7 asphalt cores, with 4-inch diameter drill bit, to evaluate general pavement thicknesses and to allow access for Kessler DCP advancements. Core thicknesses ranged from a low of 2.0 inches at C-1, C-2 and C-5, to 3.0 inches at C-7. Core locations C-3, C-4 and C-6 ranged from 2 ½ to 2 ½ inches thick.

Photographs of asphalt core samples are provided in Appendix F of this report, along with a table of asphalt and immediate subsurface conditions for both borehole and core phases of exploration.

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 all 7 asphalt core locations to a maximum depth of 90 cm or to refusal conditions at shallower levels. Kessler data was then processed to determine California Bearing Ratio (CBR) values and provide a baseline for pavement calculations. Details of all 7 kDCP exploration locations can be found within the Exploration Logs in Appendix D of this report.

### 3.5 SURFACE AND GROUNDWATER CONDITIONS

No major surface water features were observed within the project vicinity. The nearest body of water to the project site is the Pacific Ocean at Tulalip Bay, located about 500 feet northwest of the intersection of Mission Hill Road and Mission Beach Road, and approximately 60 feet lower in elevation.

A light seepage or spring, as noted previously, was observed at the downhill boundary of the gravel driveway which daylights at the gutter/roadway intersection that serves as access to the Tulalip Recovery Center, daylighting at the margin of the concrete gutter in this location. As reported to MTC, the seep flows all year in low volumes. A storm drain catch basin located downhill of the seep was observed impounding most of the light flow, while a smaller portion was noted dispersing further down the roadway. Localized plant growth was indicative of a continuous water supply (Photo H).

No groundwater was encountered during borehole advancement at any of the five exploration locations within the project site. Boreholes advanced as deep as 16.5 feet BPG did not intersect a perched or regional groundwater table. Damp soil, transitioning to wet conditions were encountered at B-1 at approximately 10.0 feet BPG and at B-2 at about 7.5 feet BPG and can be attributed to transient water migration along the hillslope during the start of the wet season. An alternate explanation is that the wet pockets observed are related to the above-mentioned seep.

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 light oxidation staining, banding and mottling was observed at boreholes B-1 to B-4 at depths ranging from approximately 2.0 to 5.0 feet BPG. Evidence of high groundwater was generally not observed at borehole B-5 during advance. 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. We anticipate that regional groundwater depths will be far below any developments and out of the realm of concern for this project.

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 Till (Qvt), and Glacial Advance Outwash (Qva), composed typically of medium dense/very stiff to 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 1.0 to 2.0 feet BPG and continued through maximum depths explored and correlate with regionally mapped deposits. Medium dense/very stiff to 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/very stiff to dense/hard consistency based on observed drilling behavior and correlation with kDCP testing. CBR values of the upper approximately three feet of the soil column varied by location and displayed relatively high values. Only locations C-4 and C-6 terminated in what is interpreted as upper fill soils, with CBR values higher than 20, while all other locations tested were terminated in native soils. Of the native soils explored, a low value of 8 was recorded for C-2 and all other locations documented CBR values greater than 20.

The presence of uncontrolled fill or reworked native soils 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 are designated to undergo complete reconstruction.

A narrow range of asphalt thicknesses were encountered during our field exploration ranging from 2.0 to 3.0 inches across the project area, where explored. The existing soil in all cases below asphalt

exploration locations was recorded as structural quality sand with gravel (Gravel borrow/pit run), however the thickness was commonly logged at 0.5 feet or less in all cases. Evident damage to roadway asphalt along with type of fill soils indicate that most locations will need to be prescribed full reconstruction to meet modern standards and potential future traffic loads.

#### 4.2 SCOPE OF SITE GRADING

A grading plan was not available to MTC at the time of this report. Based on discussions with the client and existing curb/sidewalk structures, 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 SEEPAGE DISCUSSION

MTC was asked by the client to investigate the location of light seepage as noted previously within this report. During our site exploration, we found light seepage daylighting at the downhill edge of the gravel driveway, and as reported, water flow in low volumes is visible throughout the year (Photos C & H). It is plausible that natural spring seepage from areas uphill to the east and southeast of the project site are supplying near-surface water to the daylight area as perched water during all seasons. Glacial till generally lacks permeability, and in depressions or low-lying areas, swamps can form, and remain throughout the year. Examples of this morphology can be found to the east and southeast of the project site, where swampy terrain is visible from satellite photos. These swamps, or other unmapped sources could be potential sources for the year-round water flow.

Further surface exploration by MTC revealed at least two utility corridors within the vicinity of the seep. The main storm drain catch basin for the upper parking area of the Tulalip Recovery Center is piped into

a second catch basin located within the sidewalk, adjacent to Mission Hill Road, and uphill of the subject seepage area. This catch basin, in turn, is connected by underground piping to a catch basin located immediately downhill of the seepage. The alignment of the two catch basins suggests that the connecting pipe may be damaged and be channeling flow within the gravel pipe bedding which has found a route to the surface within the gravel driveway. The designer should also consider a second utility corridor carrying telephone or cable lines, located about 20 feet uphill of Mission Hill Road, closer to the Recovery Center. This pathway is likely filled with gravel and could be an excellent channel for water migration from uphill realm toward either the gravel driveway or the downhill storm drain corridor.

Prior to construction, MTC recommends a video probe of the subject catch basins and storm drain system to determine if the root cause is a broken pipe or could be attributed other elements of the roadway drainage. During construction, the full extent and source of the seepage may be explored via excavations, with recommendations based on field findings. At present MTC can not fully determine the cause of the spring, however we have presented our limited knowledge input based on observed site features, topography and local soils composition. On request, MTC can provide additional construction phase services targeted toward permanent drainage solutions within the subject site.

# 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 throughout the project area as well as surface evaluation of existing road conditions. The client requested recommendations for pavement 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 roadway undergoes moderate traffic volumes daily. 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 and additional testing by core and kDCP explorations into consideration.

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 data on measured traffic volumes for the project area by the Tulalip Tribe Transportation Division. Traffic volumes were provided for Mission Hill Road. Values provided to MTC were in Average Daily Traffic (ADT) volumes and were assumed to include truck percentages of 3% total volume.

In consideration of the project area overall and the length of the roadway within, Section 5.2 of this report will discuss the road section in detail to provide further understanding of needs and the corresponding targeted recommendations.

ADTs representing both lanes and directions for the project area were converted to Equivalent Single Axle Loads (ESAL) for use in our AASHTO flexible pavement design calculations. To do so, the design zone was 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 3% truck traffic per day, assuming Semi Tractor Trailer Trucks as the largest vehicles on the roadway. The roadway was recognized during pavement calculations and includes a high-volume zone of 250,000 design ESAL for the neighborhood collector/local access zone roadway. Table 1 below summarizes the project area "design zone," its 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
Mission Hill Road	2	500	50%	250	229,632	250,000

#### CBR of Subgrade

For an initial conservative design approach, we have utilized a bulk subgrade value of CBR = 7 for pavement section design, which would allow for a range of shallow 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 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.

#### <u>AASHTO Flexible</u> Pavement

Calculations were performed per AASHTO Flexible Pavement Design methods. Resulting sections are summarized per Design Zone ESAL value in Section 5.2 of this report. 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:

- o Pavement Design Life = 20 years
- o Terminal Serviceability Index = 2.5
- o Reliability = 95
- o Expected Growth Rate = 1%
- o Subgrade CBR Value = 7

#### **5.2 PAVEMENT DESIGN RECOMMENDATIONS**

Pavement design sections developed with AASHTO-93 calculations were based on field data, ADT and ESAL numbers. Also in consideration are the type of improvements proposed including: the request for full reconstruction option, project budget constraints and frost protection. For clarity, we have provided commentary and tabular optional design scenarios for the roadway section that include HMA/CSTC/Gravel Base and HMA/CSBC options for reconstruction. A minimum asphalt pavement section of 3 inches was 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 asphalt replacement procedures exist, however if the goal is to increase the pavement thickness for structural support 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 scenario for the 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.

We strongly recommend a full review of as-built sections for the project roadway, 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. The lateral consistency of existing sections may vary and 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.

#### MISSION HILL ROAD

A moderate volume traffic zone extends from the intersection with Mission Beach Road, ascending about 85 vertical feet over a slope distance of approximately 615 feet to the project terminus near the south entrance of the Tulalip Treatment Center. There are curbs, gutters and sidewalks in majority across the site, and no speed bumps. The roadway is heavily cracked and displays signs of subsidence within utility trenches and obvious potholing (Photos A-G). Asphalt pavement thicknesses ranged from 2.0 to 3.0 inches at all locations explored. This zone is considered for full reconstruction procedures. 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 below asphalt. Depending on cost effectiveness, traffic controls and existing conditions this section could be subject to the following scenarios as addressed below:

	Mission Hil	Design E	00		
Ι	Design Scenario	Pavement (1/2-inch HMA (inches)	) CSTC (inches)	Gravel Base (inches)	TOTAL (inches)
N	ew Construction	3	3	12	18
N	ew Construction	4	-	12 (CSBC)	16

### 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 *very low to low* 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. Site Class C to D represents a relatively low to low-moderate 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 risk of liquefaction due to the prevalence of dense native soil deposits and 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)	$S_S$	1.263 g
Wapped Acceleration Farameters (WCE norizontar)	$S_1$	0.484 g
Site Coefficient Values	Fa	1.000
Site Coefficient values	$F_{v}$	1.516
Coloulated Deals CD A	Sms	1.263g
Calculated Peak SRA	$S_{M1}$	0.734 g
Design Book SDA (2/2 of mosts)	Sds	0.842 g
Design Peak SRA (2/3 of peak)	S _{D1}	0.489 g
Seismic Design Category – Short Period (0.2 Second) A	Acceleration	D
Seismic Design Category – 1-Second Period Accelerati	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. We understand that due to observed seepage conditions within the project site, some intrusion of migratory waters may be unavoidable year-round.

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 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 marginally 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): 95 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.

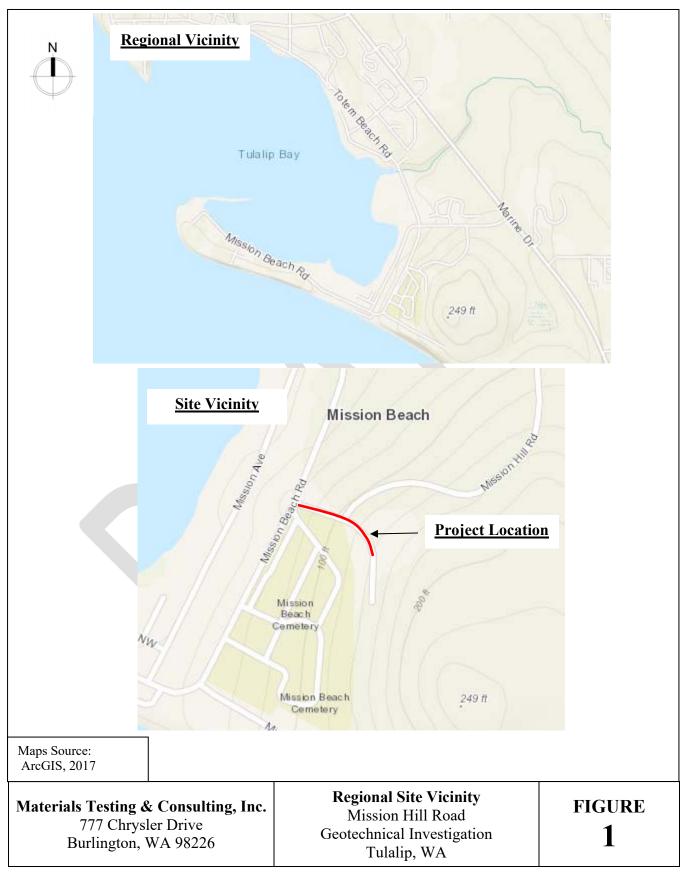
We have prepared this report in substantial accordance with the generally accepted geotechnical engineering practice as it exists in the site area at the time of our study. No warranty, express or implied, is made. The recommendations provided in this report are based on the assumption that an adequate 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.

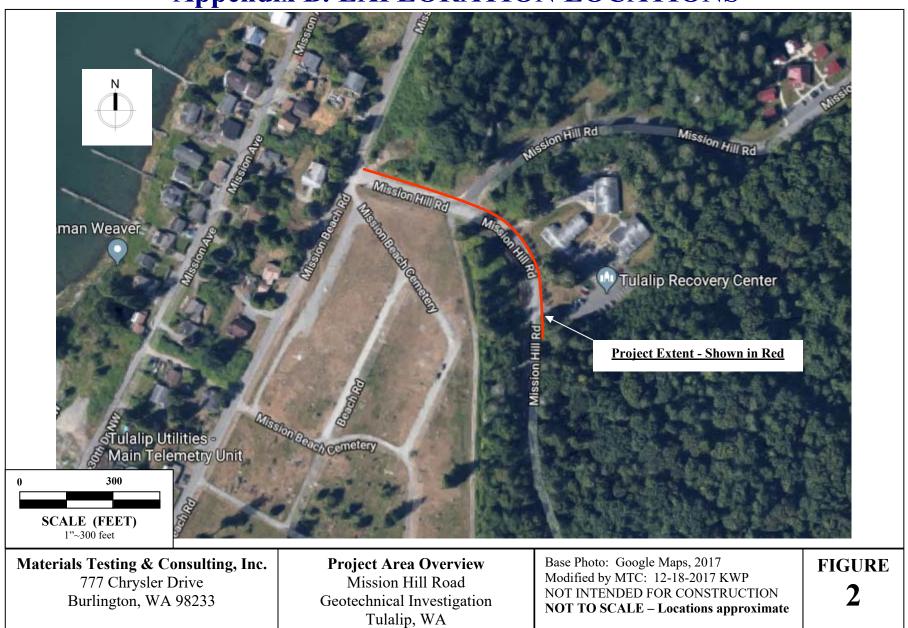
Land or facility use, on- and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, MTC may recommend that additional work be performed and that an updated report be issued. Non-compliance 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.

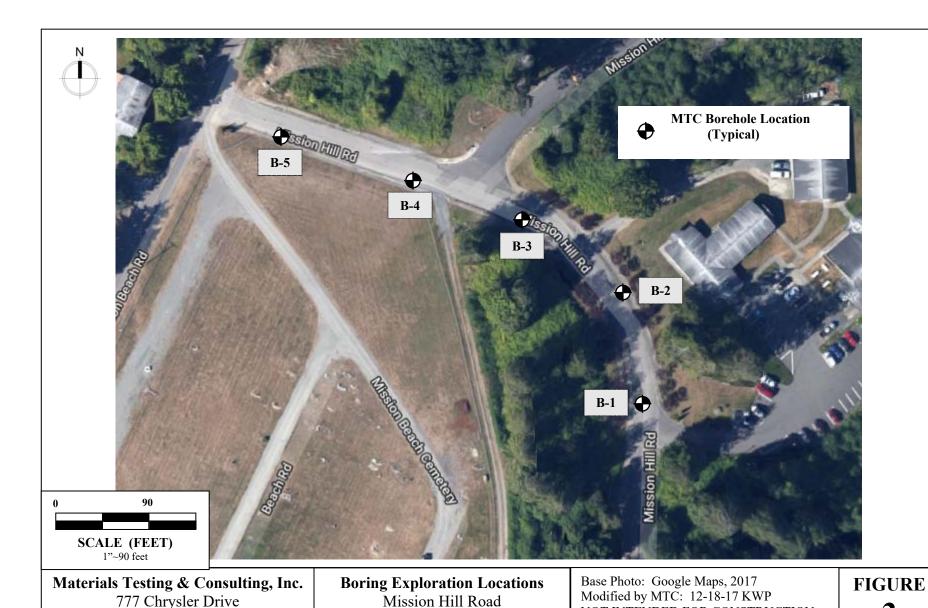
## **Appendix A. SITE LOCATION AND VICINITY**



## **Appendix B. EXPLORATION LOCATIONS**



Burlington, WA 98233



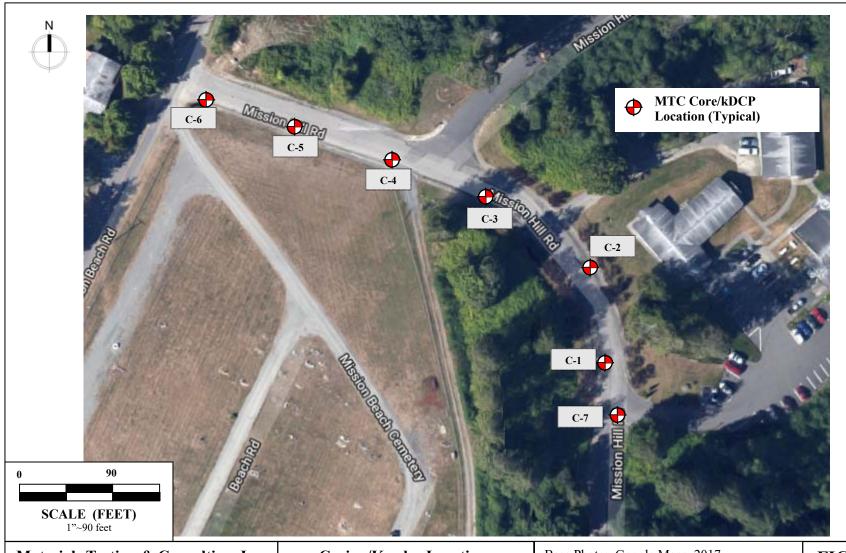
Geotechnical Investigation

Tulalip, WA

NOT INTENDED FOR CONSTRUCTION

**NOT TO SCALE – Locations approximate** 





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**Coring/Kessler Locations** Mission Hill Road Geotechnical Investigation Tulalip, WA

Base Photo: Google Maps, 2017 Modified by MTC: 12-18-17 NOT INTENDED FOR CONSTRUCTION **NOT TO SCALE – Locations approximate**  **FIGURE** 

## **Appendix C. PHOTOS OF SITE CONDITIONS**



**Photo A:** Upper roadway near the project south terminus showing road damage. South entrance to Tulalip Recovery Center on right. Facing north.



**Photo B:** South-central roadway area showing pothole and cracking. Facing northwest.

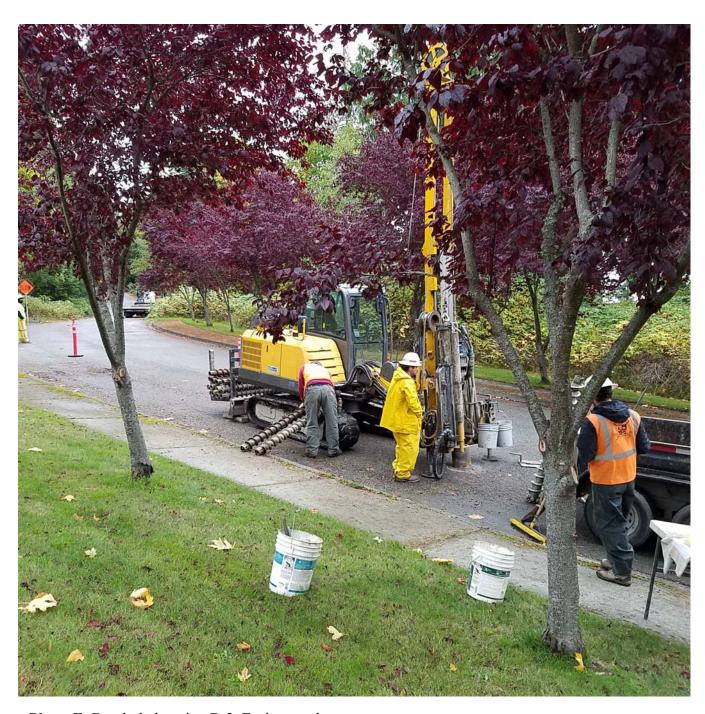


**Photo C:** Site conditions of the central project area. Entrance from Mission Hill Road spur in upper right, access from Mission Beach Road in upper center of photo. Facing northwest.



Photo D: Site conditions of the lower roadway. Facing west.

**Photo E:** Existing site conditions on the lower roadway. Facing northwest.



**Photo F:** Borehole location B-2. Facing southwest.

**Photo G:** Core/Kessler location C-4. Facing northeast.



Photo H: Storm drain catch basin fed by seep at edge of gravel driveway. Facing southeast.

## 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** Graph USCS Major Divisions Typical Description Coarse Well-graded Gravels, Gravel-Sand Mix-GW 0.0 **Grained Soils** Gravel Clean Gravels More Than Poorly-Graded Gravels, Gravel-Sand 50% of Mixtures Coarse Frac-Silty Gravels, Gravel-Sand-Silt Mixtures tion Retained GM More Than 50% On No. 4 Gravels With Fines Retained On Sieve GCClayey Gravels, Gravel-Sand-Clay Mix-No. 200 Sieve Well-graded Sands, Gravelly Sands SWSand Clean Sands Poorly-Graded Sands, Gravelly Sands More Than SP 50% of Coarse Frac-Silty Sands, Sand-Silt Mixtures tion Passing SMNo. 4 Sieve Sands With Fines Clayey Sands, Clay Mixtures SCFine Grained Inorganic Silts, rock Flour, Clayey Silts MLSoils With Low Plasticity Inorganic Clays of Low To Medium Liquid Limit Less CLSilts & Clays Plasticity Than 50 More Than 50% Organic Silts and Organic Silty Clays of OL Passing The No. 200 Sieve Inorganic Silts of Moderate Plasticity MH Silts & Clays Liquid Limit Inorganic Clays of High Plasticity CH Greater Than 50 Organic Clays And Silts of Medium to High Plasticity Peat, Humus, Soils with Predominantly

Sampler	S	vmbol	Descri	ption

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

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	Density SPT Blowcount		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	

**Highly Organic Soils** 

#### Grain Size

Organic Content

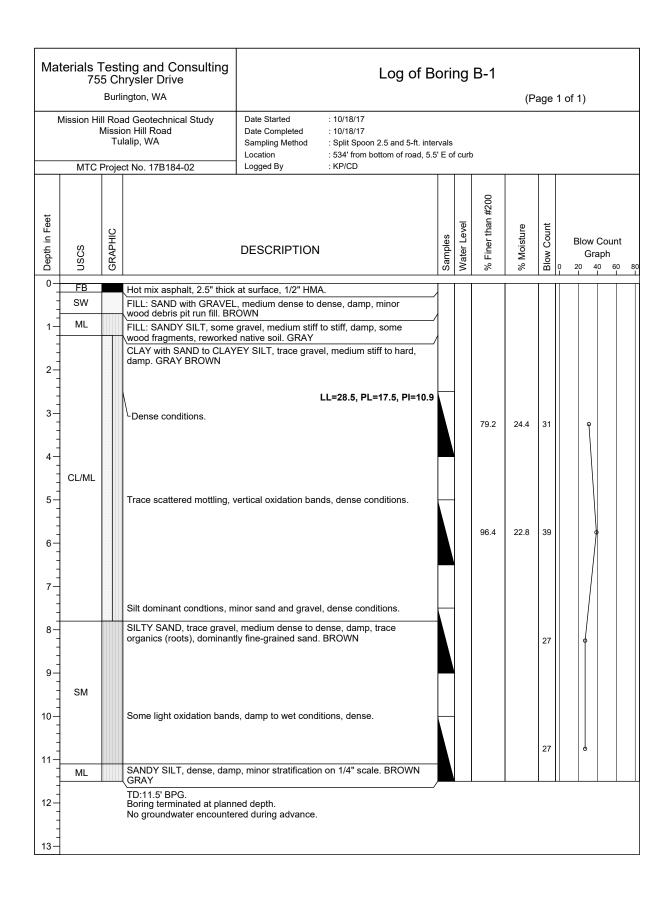
PT

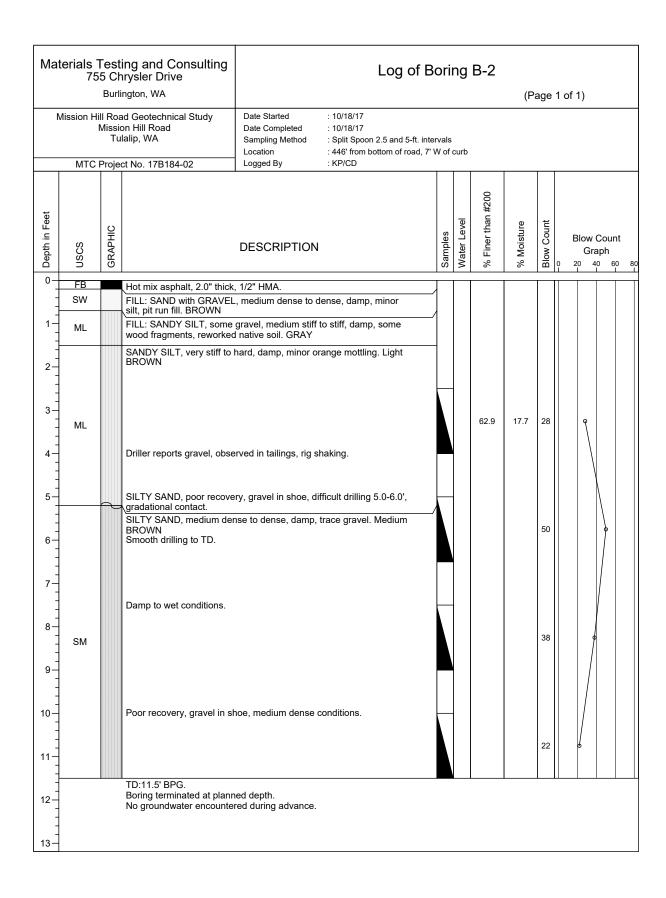
Giam Size					
DESCRIPTION		SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE	
Boulders		> 12"	> 12"	Larger than a basketball	
Cob	bles	3 - 12"	3 - 12"	Fist to basketball	
Coarse	Coarse	3/4 - 3"	3/4 - 3"	Thumb to fist	
Glavei	Fine	#4 - 3/4"	0.19 - 0.75"	Pea to thumb	
	Coarse	#10 - #4	0.079 - 0.19"	Rock salt to pea	
Sand	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	

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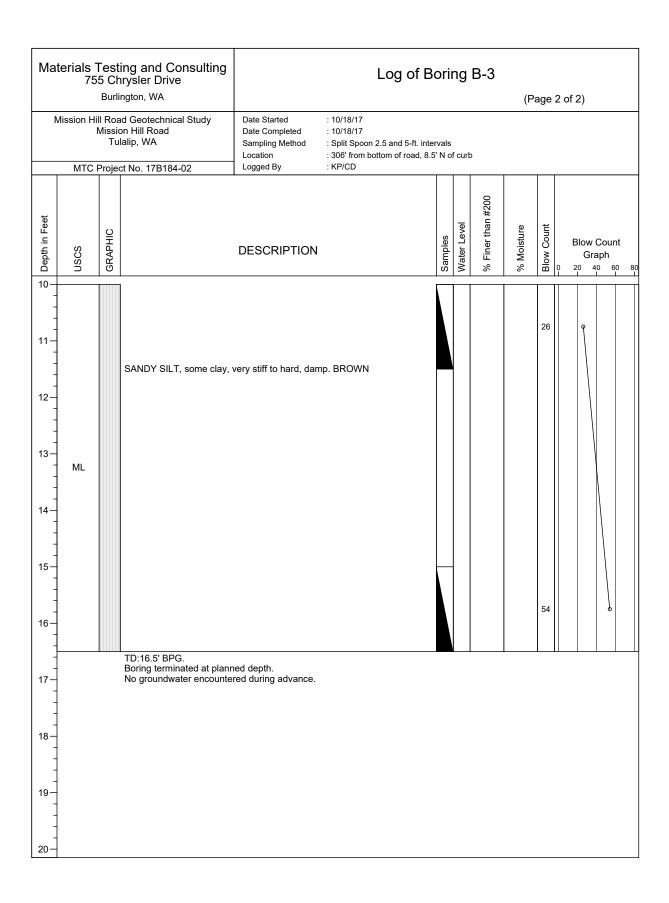
**Exploration Log Key** Mission Hill Road Geotechnical Investigation Tulalip, WA

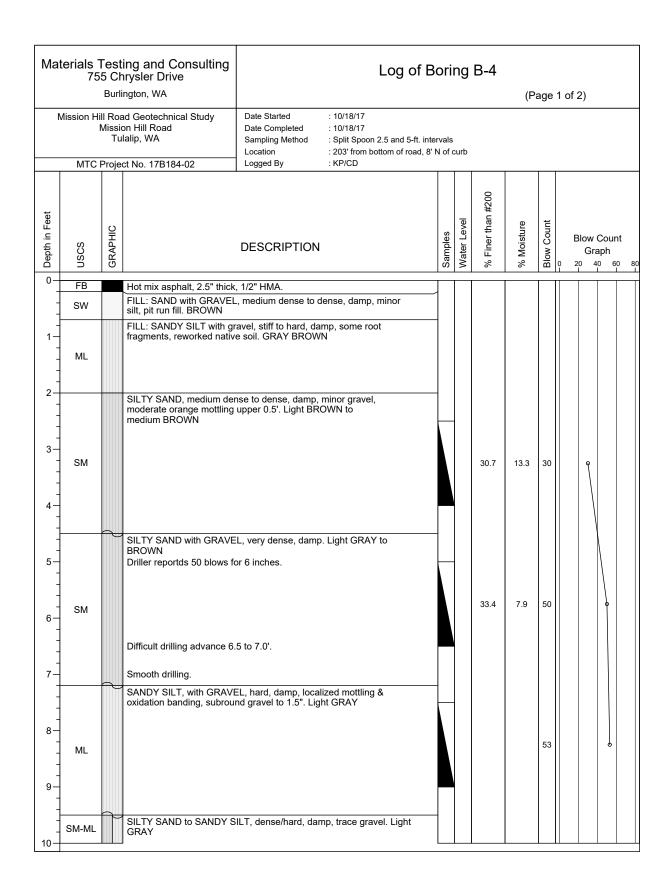
**FIGURE** 

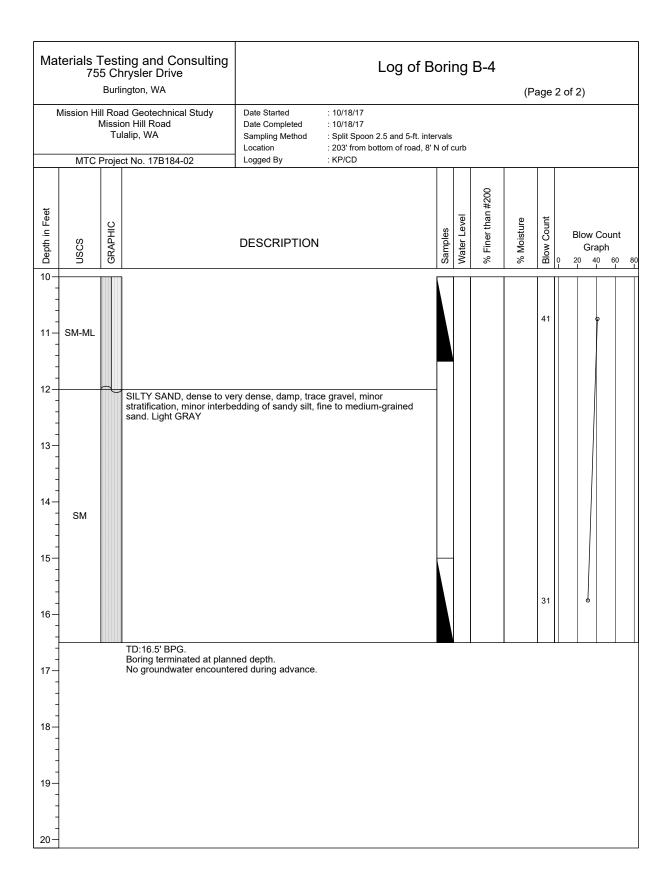


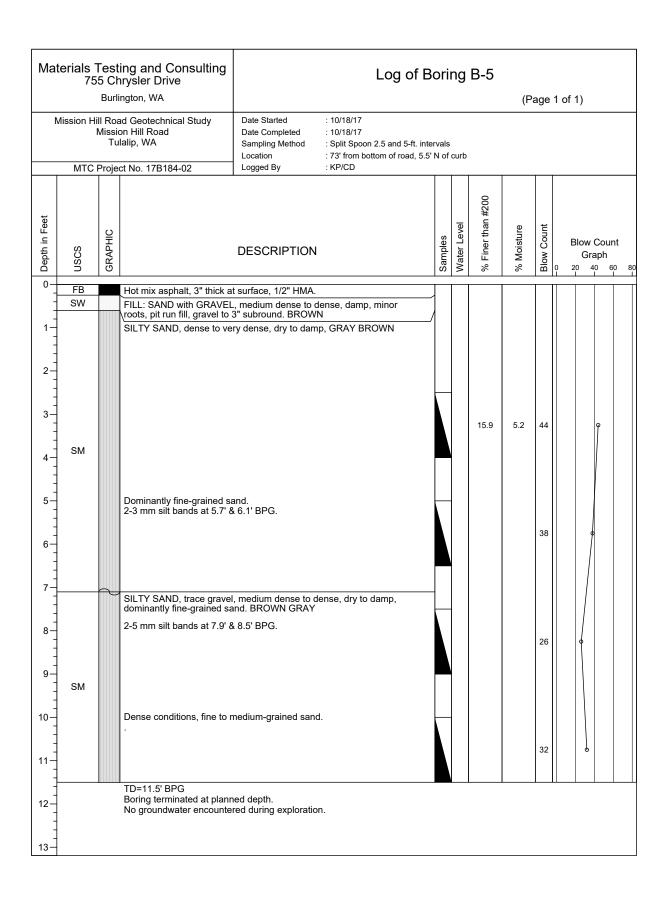


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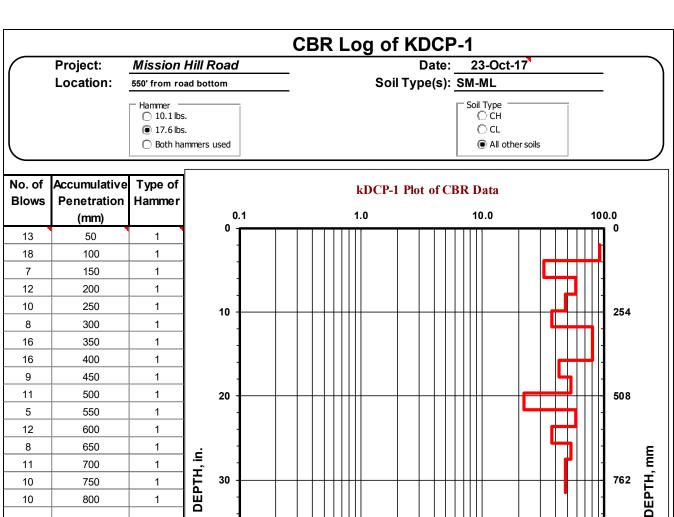
1016

1270

1524

100.0

December 21, 2017 Project No.: 17B184-02



40

50

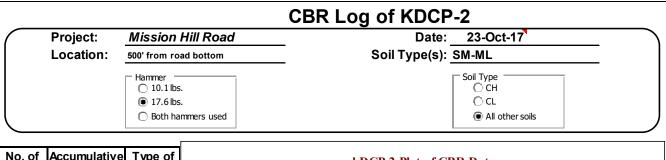
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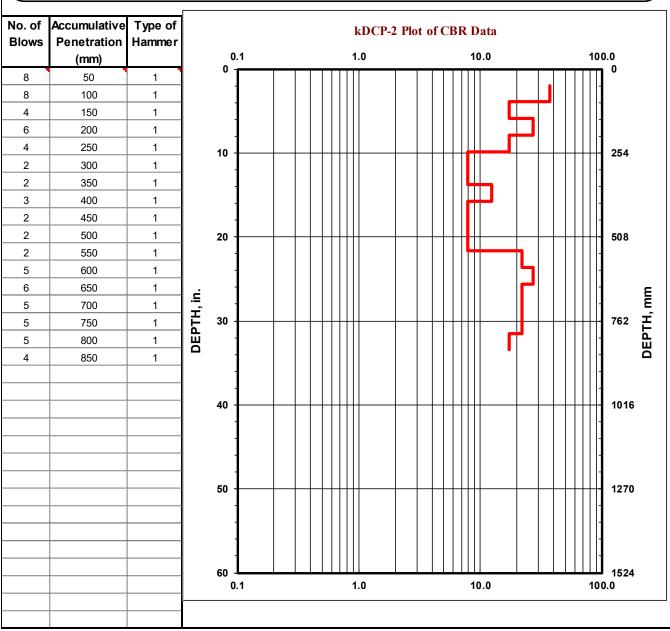
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1.0

December 21, 2017



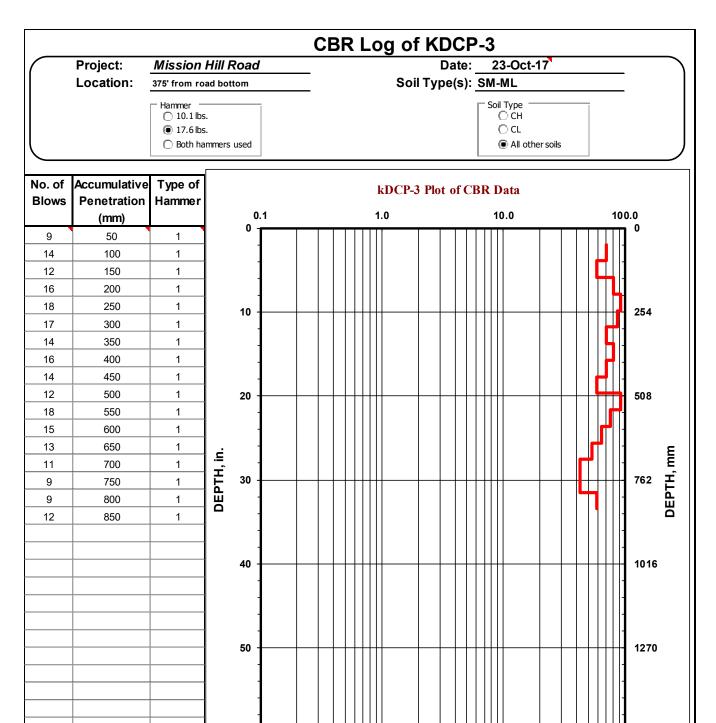


1524

100.0

10.0

December 21, 2017



1.0

60

0.1

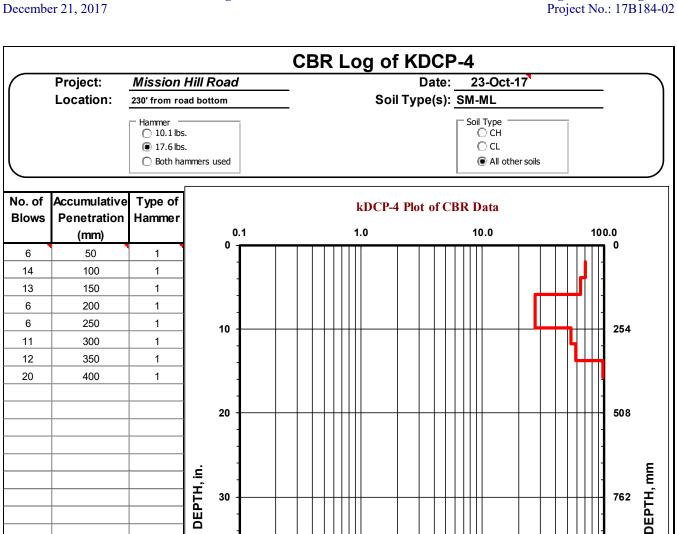
762

1016

1270

1524

100.0



30

40

50

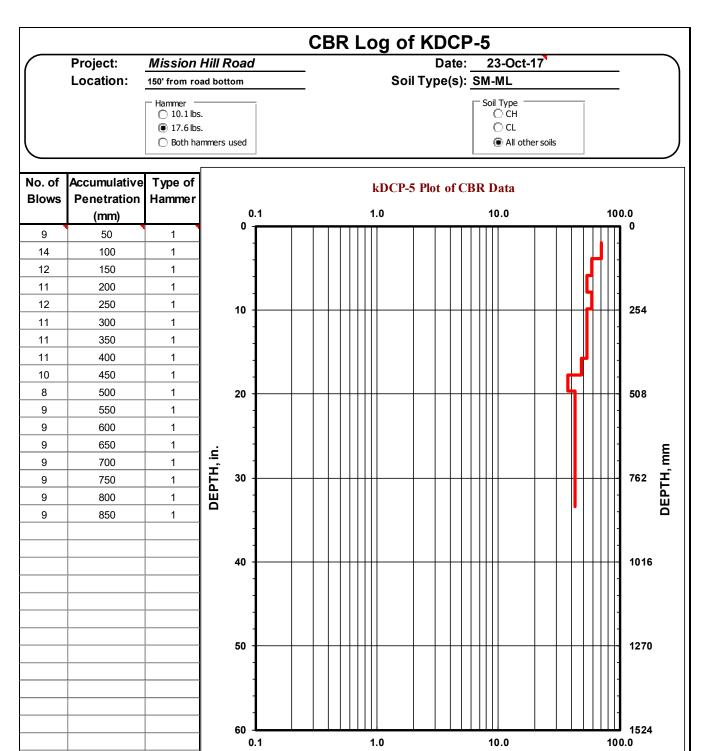
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0.1

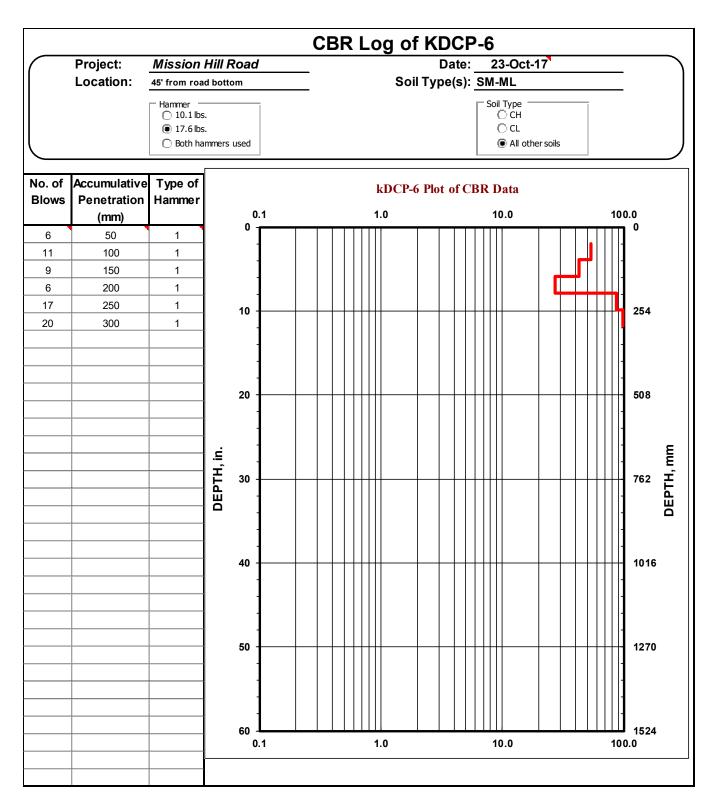
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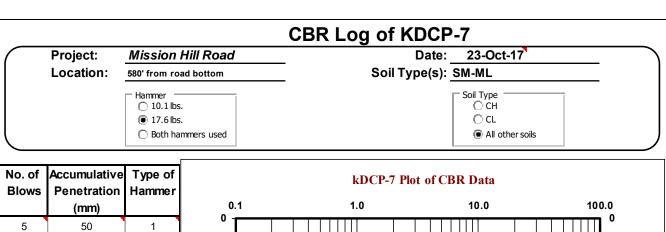
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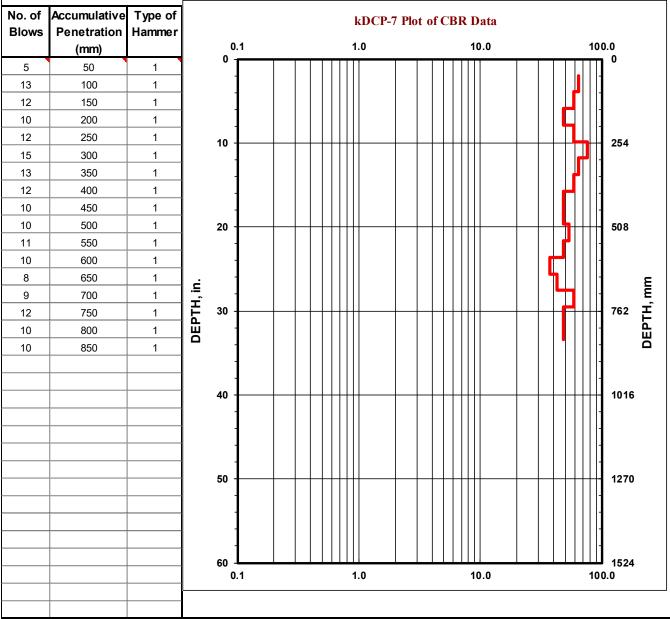
December 21, 2017 Project No.: 17B184-02



December 21, 2017 Project No.: 17B184-02







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Project No.: 17B184-02

## 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. In addition, soil liquid and plastic limits and plasticity index were determined with ASTM Standard D4318 on representative fine-grained samples. 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.

Materials Testing & Consulting, Inc. Project No.: 17B184-02

### **Sieve Report**

Project: Mission Hill Road Geotech

**Project #:** 17B184-02 Client: Gray and Osbourne Source: B-1 @ 2.5' Sample#: B17-1219

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

CL, Lean Clay with Sand Sample Color:

brown



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821 D₍₅₎= 0.005 mm

Specifications No Specs

Sample Meets Specs? N/A

% Gravel = 1.3%  $D_{(10)} = 0.009$  mm % Sand = 19.5%  $D_{(15)} = 0.014$  mm % Silt & Clay = 79.2%  $D_{(30)} = 0.028$  mm  $D_{(50)} = 0.047$  mm  $D_{(60)} = 0.057$  mm Liquid Limit = 28.5% Plasticity Index = 10.9% Sand Equivalent = n/a  $D_{(90)} = 0.313$  mm Fracture %, 1 Face = n/a

Coeff. of Curvature,  $C_C = 1.50$ Coeff. of Uniformity,  $C_{IJ} = 6.00$ Fineness Modulus = 0.39 Plastic Limit = 17.5%

Moisture %, as sampled = 24.4% Req'd Sand Equivalent = Req'd Fracture %, 1 Face =

						st Ratio = 57/67	Fracture %, 2+ Faces = n/a Req'd Fracture %, 2+ Faces =
					ASTM C-13	6, ASTM D-6913	
		Actual	Interpolated				Grain Size Distribution
			Cumulative			_	oran sta distribution
Sieve	Size	Percent	Percent	Specs	Specs	ь	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
US	Metric	Passing	Passing	Max	Min	100%	
12.00"	300.00		100%	100.0%	0.0%	1	
10.00"	250.00		100%	100.0%	0.0%		90.0% 80.0%
8.00"	200.00		100%	100.0%	0.0%	90%	+
6.00"	150.00		100%	100.0%	0.0%	1	
4.00"	100.00		100%	100.0%	0.0%	80%	800%
3.00"	75.00		100%	100.0%	0.0%	-	
2.50"	63.00		100%	100.0%	0.0%	<b>I</b>	
2.00"	50.00		100%	100.0%	0.0%	70%	<del></del>
1.75"	45.00		100%	100.0%	0.0%	1	700%
1.50"	37.50		100%	100.0%	0.0%		70.0%
1.25"	31.50		100%	100.0%	0.0%	60%	<del></del>
1.00"	25.00		100%	100.0%	0.0%	Buis	500%
3/4"	19.00		100%	100.0%	0.0%	Dulssa 4 50% +-	500%
5/8"	16.00		100%	100.0%	0.0%		
1/2"	12.50		100%	100.0%	0.0%	<b>I</b>	
3/8"	9.50	100%	100%	100.0%	0.0%	40%	500% 400% 300%
1/4"	6.30		99%	100.0%	0.0%		40%
#4	4.75	99%	99%	100.0%	0.0%	1	
#8	2.36		98%	100.0%	0.0%	30%	300%
#10	2.00	98%	98%	100.0%	0.0%		200%
#16	1.18		95%	100.0%	0.0%	20%	200%
#20	0.850		94%	100.0%	0.0%		
#30	0.600		94%	100.0%	0.0%	<b> </b>	
#40	0.425	93%	93%	100.0%	0.0%	10%	10.0%
#50	0.300		90%	100.0%	0.0%	1	
#60	0.250		88%	100.0%	0.0%		100%
#80	0.180		86%	100.0%	0.0%	0%	100.000 10.000 1.000 0.100 0.010 0.001
#100	0.150	85%	85%	100.0%	0.0%		
#140	0.106		82%	100.0%	0.0%		Particle Sze (mm)
#170	0.090		80%	100.0%	0.0%		
#200	0.075	79.2%	79.2%	100.0%	0.0%	+ Sieve Size	s — Max Specs — Min Specs — Sieve Results
Copyright	Spears Engineering &	Technical Services PS,	1996-98				
All results apply only	to actual locations and	materials tested As a	mutual protection to ali	ante the public and ours	alvac all raports are	submitted as the confidential pr	operty of clients, and authorization for publication of statements, conclusions or extracts from or re

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or recognitions. our reports is reserved pending our written approval.

Comments:

Reviewed by:

Materials Testing & Consulting, Inc.

777 Chrysler Drive Burlington, WA 98233

Lab Sample: B-1 @ 2.5' Mission Hill Road Geotechnical Investigation Tulalip, WA

**FIGURE** 

6

## ASTM D4318 - Liquid Limit, Plastic Limit and Plasticity Index of Soils

Project: Mission Hill Road Geotech Date Received: 6-Nov-17 Project #: 17B184-02 Sampled By: K. Parker

Client: Gray and Osbourne Date Tested: 8-Nov-17 Source: B-1 @ 2.5' Tested By: M. Carrillo Sample #: B17-1219

Unified Soils Classification System, ASTM D-2487

CL, Lean Clay with Sand

Sample Color

brown

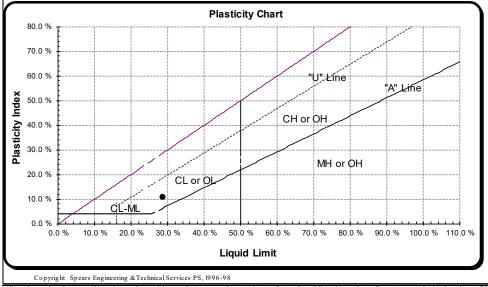
Liquid Limit Determination											
#1 #2 #3 #4 #5 #6											
33.19	37.17	32.54									
30.22	33.24	29.55									
19.53	19.79	19.61									
10.69	13.45	9.94									
2.97	3.93	2.99									
27.8 %	29.2 %	30.1 %									
30	19	15									
	#1 33.19 30.22 19.53 10.69 2.97 27.8 %	#1 #2 33.19 37.17 30.22 33.24 19.53 19.79 10.69 13.45 2.97 3.93 27.8 % 29.2 %	#1 #2 #3  33.19 37.17 32.54  30.22 33.24 29.55  19.53 19.79 19.61  10.69 13.45 9.94  2.97 3.93 2.99  27.8 % 29.2 % 30.1 %	#1 #2 #3 #4  33.19 37.17 32.54  30.22 33.24 29.55  19.53 19.79 19.61  10.69 13.45 9.94  2.97 3.93 2.99  27.8 % 29.2 % 30.1 %	#1 #2 #3 #4 #5  33.19 37.17 32.54  30.22 33.24 29.55  19.53 19.79 19.61  10.69 13.45 9.94  2.97 3.93 2.99  27.8 % 29.2 % 30.1 %						

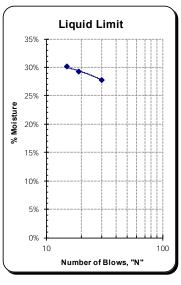
Liquid Limit @ 25 Blows: Plastic Limit: 17.5 % Plasticity Index, I_P: 10.9 %

#### **Plastic Limit Determination**

	#1	#2	#3	#4	#5	#6
Weight of Wet Soils + Pan:	35.04	35.71				
Weight of Dry Soils + Pan:	34.01	34.60				
Weight of Pan:	28.02	28.39				
Weight of Dry Soils:	5.99	6.21				
Weight of Moisture:	1.03	1.11				
% Moisture:	17.2 %	17.9 %				







of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

**Comments:** 

#### Materials Testing & Consulting, Inc.

777 Chrysler Drive Burlington, WA 98233

## Lab Sample: B-1 @ 2.5'

Mission Hill Road Geotechnical Investigation Tulalip, WA

Project: Mission Hill Road Geotech Project #: 17B184-02 Client: Gray and Osbourne

Source: B-1 @ 5.0' Sample#: B17-1220

Date Received: 6-Nov-17 Sampled By: K. Parker Date Tested: 7-Nov-17 Tested By: M. Carrillo Visual Identification Clayey Silt Sample Color: gray-brown



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications No Specs

Sample Meets Specs? N/A

 $D_{(10)} = 0.008$  mm  $D_{(15)} = 0.012$  mm % Silt & Clay = 96.4%

 $D_{(30)} = 0.023$  mm  $D_{(50)} = 0.039$  $D_{(60)} = 0.047$  mm  $D_{(90)} = 0.070 \text{ mm}$ 

Ratio = 44/45

 $Liquid\ Limit=\ n/a$ Plasticity Index = n/a Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a

% Gravel = 0.0%

% Sand = 3.6%

Coeff. of Curvature,  $C_C = 1.50$ Coeff. of Uniformity,  $C_U = 6.00$ Fineness Modulus = 0.08

Plastic Limit = n/a

Moisture %, as sampled = 22.8% Req'd Sand Equivalent =

Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =

Actual Interpolated Cumulative Cumulative									
Sieve Size		Percent	Percent	Specs	Specs				
US	Metric	Passing	Passing	Max	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%	100.0%	0.0%				
3/4"	19.00		100%	100.0%	0.0%				
5/8"	16.00		100%	100.0%	0.0%				
1/2"	12.50		100%	100.0%	0.0%				
3/8"	9.50	100%	100%	100.0%	0.0%				
1/4"	6.30		100%	100.0%	0.0%				

100%

100%

100%

99%

99%

99%

99%

98%

97%

97%

97%

97%

96%

96.4%

100.0%

100.0%

100.0%

100.0%

100.0%

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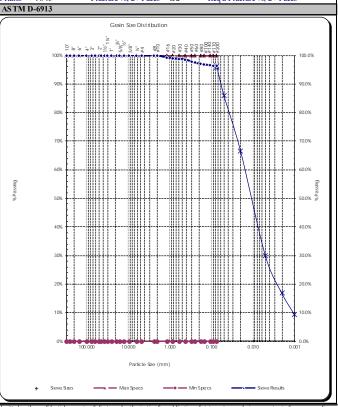
0.0%

0.0%

100%

100%

96.4%



4.75

2.36

2.00

1.18

0.850

0.600

0.425

0.300

0.250

0.180

0.150

0.106

0.090

0.075

Megh Bakget aille

Comments:

#4

#10

#16

#20

#30

#40

#50

#60

#80

#100

#140

#170

#200

Reviewed by:

Materials Testing & Consulting, Inc.

777 Chrysler Drive Burlington, WA 98233

Lab Sample: B-1 @ 5.0' Mission Hill Road Geotechnical Investigation Tulalip, WA

Materials Testing & Consulting, Inc. Project No.: 17B184-02

## **Hydrometer Report**

Project: Mission Hill Road Geotech

Project #: 17B184-02

Client: Gray and Osbourne Source: B-1 @ 5.0' Sample#: B17-1220

Date Received: 6-Nov-17

Sampled By: K. Parker Date Tested: 7-Nov-17 Tested By: M. Carrillo Visual Identification

Clayey Silt Sample Color gray-brown

ASTM D-422, HYDROMETER ANALYSIS

Assumed Sp Gr: Sample Weight: 50.38 grams Hydroscopic Moist.: 2.55% Adj. Sample Wgt: 49.13 grams

ACCREDITED
Certificate #: 1366.01, 1366.02

ASTM C-136 Sieve Analysis

**Grain Size Distribution** 

Hydrometer			Certif					
Reading	Corrected	Percent	Soils Particle					
Minutes	Reading	Passing	Diameter					
2	38.5	77.5%	0.0302 mm					
5	33	66.5%	0.0198 mm					
15	25	50.3%	0.0121 mm					
30	21	42.3%	0.0088 mm					
60	17	34.2%	0.0064 mm					
250	12	24.2%	0.0032 mm					
1440	6.5	13.1%	0.0014 mm					

% Gravel:	0.0%	Liquid Limit:	n/a
% Sand:	3.6%	Plastic Limit:	n/a
% Silt:	66.5%	Plasticity Index:	n/a
% Clay:	29.9%		

Grain Size Distribution										
Sieve	Percent	Soils Particle								
Size	Passing	Diameter								
3.0"	100%	75.000 mm								
2.0"	100%	50.000 mm								
1.5"	100%	37.500 mm								
1.25"	100%	31.500 mm								
1.0"	100%	25.000 mm								
3/4"	100%	19.000 mm								
5/8"	100%	16.000 mm								
1/2"	100%	12.500 mm								
3/8"	100%	9.500 mm								
1/4"	100%	6.300 mm								
#4	100%	4.750 mm								
#10	100%	2.000 mm								
#20	99%	0.850 mm								
#40	99%	0.425 mm								
#100	97%	0.150 mm								
#200	96.4%	0.075 mm								
Silts	95.9%	0.074 mm								
	85.8%	0.050 mm								
	66.6%	0.020 mm								
Clays	29.9%	0.005 mm								
	16.8%	0.002 mm								
Colloids	9.4%	0.001 mm								

#### **USDA Soil Textural Classification**

Particle Size

% Sand: 2.0 - 0.05 mm % Silt: 0.05 - 0.002 mm < 0.002 mm % Clay:

**USDA Soil Textural Classification** 

#NAME?

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Comments:

**Materials Testing & Consulting, Inc.** 

777 Chrysler Drive Burlington, WA 98233

**Lab Sample: B-1 @ 5.0** Mission Hill Road Geotechnical Investigation Tulalip, WA

Project: Mission Hill Road Geotech

Project #: 17B184-02 Client: Gray and Osbourne Source: B-2 @ 2.5' Sample#: B17-1221

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

ML, Sandy Silt Sample Color: gray-brown



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications No Specs

Sample Meets Specs? N/A

% Gravel = 0.4%  $D_{(10)} = 0.012$  mm  $D_{(15)} = 0.018$  mm % Sand = 36.8% % Silt & Clay = 62.9%  $D_{(30)} = 0.036$  mm Liquid Limit = 0.0%  $D_{(50)} = 0.060 \text{ mm}$ Plasticity Index = 0.0%  $D_{(60)} = 0.072$  mm  $D_{(90)} = 0.413$  mm

Sand Equivalent = n/a Fracture %, 1 Face = n/a

Fracture %, 2+ Faces = n/a

Coeff. of Curvature,  $C_C = 1.50$ Coeff. of Uniformity,  $C_U = 6.00$ 

Fineness Modulus = 0.64

Plastic Limit = 0.0%

Moisture %, as sampled = 17.7% Req'd Sand Equivalent =

Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =

						2 (90)	0
					Du	st Ratio =	56/81
					ASTM C-136	5, ASTM D	)-6913
		Actual	Interpolated				
		Cumulative	Cumulative				
Sieve	Size	Percent	Percent	Specs	Specs	1	
US	Metric	Passing	Passing	Max	Min	ı	10
12.00"	300.00		100%	100.0%	0.0%	1	
10.00"	250.00		100%	100.0%	0.0%	ı	
8.00"	200.00		100%	100.0%	0.0%	ı	9
6.00"	150.00		100%	100.0%	0.0%	ı	
4.00"	100.00		100%	100.0%	0.0%	ı	
3.00"	75.00		100%	100.0%	0.0%	ı	8
2.50"	63.00		100%	100.0%	0.0%	ı	
2.00"	50.00		100%	100.0%	0.0%	ı	7
1.75"	45.00		100%	100.0%	0.0%	ı	
1.50"	37.50		100%	100.0%	0.0%	ı	
1.25"	31.50		100%	100.0%	0.0%	ı	6
1.00"	25.00		100%	100.0%	0.0%	p	
3/4"	19.00		100%	100.0%	0.0%	% Passing	
5/8"	16.00		100%	100.0%	0.0%	₩.	5
1/2"	12.50		100%	100.0%	0.0%	ı	
3/8"	9.50	100%	100%	100.0%	0.0%	ı	4
1/4"	6.30		100%	100.0%	0.0%	ı	
	1.00	1		1			

100%

99%

99%

95%

93%

92%

91%

81%

77%

72%

69%

66%

64%

62.9%

100.0%

100.0%

100.0%

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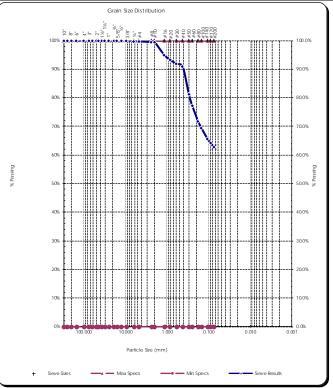
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4.75

2.36

2.00

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0.850

0.600

0.425

0.300

0.250

0.180

0.150

0.106

0.090

0.075

Negh Bakget aille

100%

91%

69%

62.9%

Comments:

#4

#10

#16

#20

#30

#40

#50

#60

#80

#100

#140

#170

#200

Reviewed by:

Materials Testing & Consulting, Inc.

777 Chrysler Drive Burlington, WA 98233

Lab Sample: B-2 @ 2.5' Mission Hill Road Geotechnical Investigation Tulalip, WA

Project: Mission Hill Road Geotech

Date Received: 6-Nov-17 Sampled By: K. Parker Unified Soils Classification System, ASTM D-2487 ML, Sandy Silt

Project #: 17B184-02 Client: Gray and Osbourne Source: B-2 @ 2.5' Sample #: B17-1221

Date Tested: 8-Nov-17
Tested By: M. Carrillo

Sample Color gray-brown

Liquid Limit Determination
#1 #2 #3
Weight of Wet Soils + Pan:

Weight of Dry Soils + Pan:

Weight of Pan:

Weight of Dry Soils:

Weight of Moisture:

% Moisture:

Number of Blows:

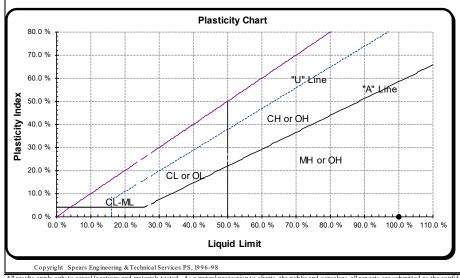
Liquid Limit @ 25 Blows: N/A
Plastic Limit: N/A
Plasticity Index, I_P: N/A

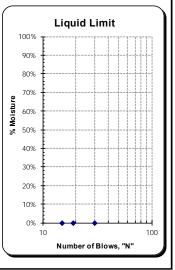
**Plastic Limit Determination** 

#1 #2 #3 #4 #5 #6

Weight of Wet Soils + Pan:
Weight of Pan:
Weight of Pan:
Weight of Moisture:
% Moisture:







All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

**Comments:** Sample is non-plastic as it does not roll down to 1/8" threads.

Materials Testing & Consulting, Inc.

777 Chrysler Drive Burlington, WA 98233 Lab Sample: B-2 @ 2.5'
Mission Hill Road
Geotechnical Investigation
Tulalip, WA

Project: Mission Hill Road Geotech

Project #: 17B184-02 Client: Gray and Osbourne Source: B-3 @ 2.5' Sample#: B17-1222

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-brown



Specifications

No Specs

Sample Meets Specs? N/A

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

 $D_{(10)} = 0.032$  mm  $D_{(15)} = 0.047$  mm % Silt & Clay = 23.7%  $D_{(30)} = 0.126$  mm  $Liquid\ Limit=\ n/a$  $D_{(50)} = 0.395$  mm

Plasticity Index = n/a  $D_{(60)} = 1.526$  mm Sand Equivalent = n/a  $D_{(90)} = 14.860 \text{ mm}$ Fracture %, 1 Face = n/a

% Gravel = 28.6%

% Sand = 47.7%

Coeff. of Curvature,  $C_C = 0.33$ Coeff. of Uniformity,  $C_U = 48.22$ 

Fineness Modulus = 3.00 Plastic Limit = n/a

Moisture %, as sampled = 8.1%

Req'd Sand Equivalent = Req'd Fracture %, 1 Face = **

		Actual	Interpolated			, AS TM D-691;				unin Cir	Distric	.41					_		
		Cumulative	Cumulative						G	ain Size	DISTRID	ltion							
Sieve	Size	Percent	Percent	Specs	Specs				×	× ×		0 9-		00089	222				
US	Metric	Passing	Passing	Max	Min		100%	p 6 4 W	7 % 1	3/8	× * *	##C	#3	\$2 9 E	-X				100.0%
12.00"	300.00		100%	100.0%	0.0%		T		1		$\Pi\Pi\Pi$			T				/	
10.00"	250.00		100%	100.0%	0.0%		ŀ		•4	<b>\</b>						Ш		/	1
8.00"	200.00		100%	100.0%	0.0%		90%	<del></del>		<b>ो</b> -⊪	╫┼┼╌	<del></del> ₩	+++-+	+-+		-++		╁┼┼╌┼	90.0%
6.00"	150.00		100%	100.0%	0.0%		F	H		1									- 1
4.00"	100.00		100%	100.0%	0.0%		1			V								1111	-1
3.00"	75.00		100%	100.0%	0.0%		80%	11111	17177	N.	###	111	###	†††	*******	1-1-		ittt	80.0%
2.50"	63.00		100%	100.0%	0.0%													1111	- 1
2.00"	50.00		100%	100.0%	0.0%		70%	<u> </u>	<u> </u>		N.	14		44	ЩЩ			4444	70.0%
1.75"	45.00		100%	100.0%	0.0%		1				<b>\</b>								
1.50"	37.50		100%	100.0%	0.0%		ŀ					<b>√</b>						1111	1
1.25"	31.50		100%	100.0%	0.0%		60%	<del></del> ₩	╫╫┼┼		₩₩		+++-+	+-+		-+		╁┼┼╌┼	60.0%
1.00"	25.00	95%	95%	100.0%	0.0%	Ď.	F					l 🔪				Ш		/	- 1
3/4"	19.00	95%	95%	100.0%	0.0%	% Passing	- 1					1 11	**					//	50.0%
5/8"	16.00		91%	100.0%	0.0%	*	50%		111111		###	111	111-	(†-†	1111111	-1-1-		rttt	50.0%
1/2"	12.50	87%	87%	100.0%	0.0%		ļ.							V I		Ш	-	1111	
3/8"	9.50	82%	82%	100.0%	0.0%		40%				<u> </u>	<u>                                     </u>		<u> </u>	ЩЩ			4444	40.0%
1/4"	6.30		75%	100.0%	0.0%		1							1		Ш	-	/	1
#4	4.75	71%	71%	100.0%	0.0%		ŀ							1				/	-
#8	2.36		64%	100.0%	0.0%		30%		<del>╎</del> ┼┼┼╌┼		╫┼╌	<del>   </del>	+++-+	<del></del>		-+-+		┟┼┼╌┼	30.0%
#10	2.00	63%	63%	100.0%	0.0%		F							'	<b>X</b>			/	- 1
#16	1.18		57%	100.0%	0.0%		F								*			/	-1
#20	0.850		55%	100.0%	0.0%		20%	†III	111111		###	111	11111	††**		11	-1111	rttt	20.0%
#30	0.600		53%	100.0%	0.0%		ļ.											/	- 1
#40	0.425	52%	52%	100.0%	0.0%		10%	<b>↓∭</b>	4444-4		###	<b>   </b>		4-4	444444	44-	-444	╁╁╌┆	10.0%
#50	0.300		43%	100.0%	0.0%		ŀ	1								Ш			
#60	0.250		40%	100.0%	0.0%		ŀ									Ш	- 11111		
#80	0.180		35%	100.0%	0.0%		0%	100.000	أحفظفا	10.000	وأسأوا	1.000	<del>افاقا</del>	40 00	100	سلسك	0.010	للللا	0.0%
#100	0.150	33%	33%	100.0%	0.0%			100:000		10000		1.000		0.	IUU		0.010		0.001
#140	0.106		28%	100.0%	0.0%					Par	ticle Size	(mm)							
#170	0.090		26%	100.0%	0.0%														
#200	0.075	23.7%	23.7%	100.0%	0.0%	<b>l</b> +	Sieve Size			Max Sp	ecs	_		Min Spec	s		— Sier	ve Results	
	Spears Engineering &	I	1	100.070	0.07.0	l '													

our reports is reserved pending our written approval.

Comments:

**Materials Testing & Consulting, Inc.** 777 Chrysler Drive

Burlington, WA 98233

Lab Sample: B-3 @ 2.5' Mission Hill Road Geotechnical Investigation Tulalip, WA

Dust Ratio = 22/61

Project: Mission Hill Road Geotech

Project#: 17B184-02 Client: Gray and Osbourne Source: B-4 @ 2.5' Sample#: B17-1223 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

Fracture %, 2+ Faces = n/a

SM, Silty Sand
Sample Color:



ASTMD-2216, ASTMD-2419, ASTMD-4318, ASTMD-5821

S pecifications
No Specs

Sample Meets Specs? N/A

Coeff. of Curvature,  $C_C = 1.00$ Coeff. of Uniformity,  $C_U = 8.96$ Fineness Modulus = 1.16 Plastic Limit = n/a Moisture %, as sampled = 13.3%

Req'd Sand Equivalent =
Req'd Fracture %, 1 Face =
Req'd Fracture %, 2+ Faces =

					ASTM C-136
		Actual	Interpolated		
		Cumulative	Cumulative		
Sieve	Size	Percent	Percent	Specs	Specs
US	Metric	Passing	Passing	Max	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%	100.0%	0.0%
3/4"	19.00	100%	100%	100.0%	0.0%
5/8"	16.00		99%	100.0%	0.0%
1/2"	12.50	99%	99%	100.0%	0.0%
3/8"	9.50	98%	98%	100.0%	0.0%
1/4"	6.30		97%	100.0%	0.0%
#4	4.75	96%	96%	100.0%	0.0%
#8	2.36		93%	100.0%	0.0%
#10	2.00	93%	93%	100.0%	0.0%
#16	1.18		89%	100.0%	0.0%
#20	0.850		87%	100.0%	0.0%
#30	0.600		86%	100.0%	0.0%
#40	0.425	85%	85%	100.0%	0.0%
#50	0.300		70%	100.0%	0.0%
#60	0.250		64%	100.0%	0.0%

55%

52%

39%

35%

30.7%

100.0%

100.0%

100.0%

100.0%

100.0%

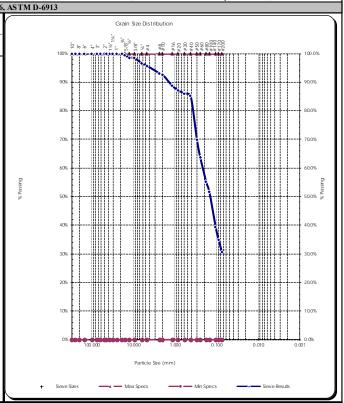
0.0%

0.0%

0.0%

0.0%

0.0%



All results apply only to actual locations and materials

0.180

0.150

0.106

0.090

0.075

Negh Balgetaille

Comments:

#80 #100

#140

#170

#200

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive

52%

Burlington, WA 98233

Lab Sample: B-4 @ 2.5'
Mission Hill Road
Geotechnical Investigation
Tulalip, WA

Project No.: 17B184-02

### **Sieve Report**

Project: Mission Hill Road Geotech

Project #: 17B184-02

Client: Gray and Osbourne Source: B-4 @ 5.0' Sample#: B17-1224

Date Received: 6-Nov-17 Sampled By: K. Parker Date Tested: 8-Nov-17 Tested By: M. Carrillo

100.0%

100.0%

100.0%

100.0%

100.0%

100.0%

100.0%

100.0%

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0.0%

0.0%

0.0%

ASTM D-2487 Unified Soils Classification System SM, Silty Sand with Gravel

Sample Color:

gray

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications

No Specs

Sample Meets Specs? N/A

 $D_{(5)} = 0.011$  mm % Gravel = 22.2%  $D_{(10)} = 0.022$  mm % Sand = 44.4%  $D_{(15)} = 0.034$  mm % Silt & Clay = 33.4%  $D_{(30)} = 0.067$  mm Liquid Limit = n/a  $D_{(50)} = 0.238$  mm Plasticity Index = n/a  $D_{(60)} = 0.381$  mm Sand Equivalent = n/a  $D_{(90)} = 13.920 \text{ mm}$ Fracture %, 1 Face = n/a

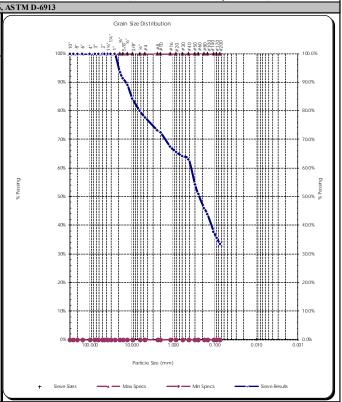
Fracture %, 2+ Faces = n/a

Coeff. of Curvature,  $C_C = 0.53$ Coeff. of Uniformity, C_U = 16.96 Fineness Modulus = 2.41 Plastic Limit = n/a Moisture %, as sampled = 7.9%

Req'd Sand Equivalent = Req'd Fracture %, 1 Face =

Req'd Fracture %, 2+ Faces =

						- (90)	
						st Ratio =	
					ASTM C-136	, ASTM I	D-6913
		Actual	Interpolated				
		Cumulative	Cumulative				
Sieve	Size	Percent	Percent	Specs	Specs	1	
US	Metric	Passing	Passing	Max	Min	ı	100
12.00"	300.00		100%	100.0%	0.0%	1	
10.00"	250.00		100%	100.0%	0.0%	ı	
8.00"	200.00		100%	100.0%	0.0%	ı	91
6.00"	150.00		100%	100.0%	0.0%	ı	
4.00"	100.00		100%	100.0%	0.0%	ı	
3.00"	75.00		100%	100.0%	0.0%	ı	8
2.50"	63.00		100%	100.0%	0.0%	ı	
2.00"	50.00		100%	100.0%	0.0%	ı	7
1.75"	45.00		100%	100.0%	0.0%	ı	
1.50"	37.50		100%	100.0%	0.0%	ı	
1.25"	31.50		100%	100.0%	0.0%	ı	6
1.00"	25.00	100%	100%	100.0%	0.0%	ē	
3/4"	19.00	94%	94%	100.0%	0.0%	% Passing	
5/8"	16.00		91%	100.0%	0.0%	38	5
1/2"	12.50	89%	89%	100.0%	0.0%	ı	
3/8"	9.50	84%	84%	100.0%	0.0%	ı	4
1/4"	6.30		80%	100.0%	0.0%	ı	
#4	4.75	78%	78%	100.0%	0.0%	ı	
#8	2.36		73%	100.0%	0.0%	ı	3
#10	2.00	72%	72%	100.0%	0.0%	ı	
#16	1.18		68%	100.0%	0.0%		
#20	0.850		66%	100.0%	0.0%	l	2
#30	0.600		64%	100.0%	0.0%		



0.425

0.300

0.250

0.180

0.150

0.106

0.090

0.075

63%

44%

33.4%

54%

51%

46%

44%

38%

35%

33.4%

#60

#80

#100

#140

#170

#200

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233

Lab Sample: B-4 @ 5.0' Mission Hill Road Geotechnical Investigation Tulalip, WA

Project: Mission Hill Road Geotech

Project #: 17B184-02 Client: Gray and Osbourne Source: B-5 @ 2.5' Sample#: B17-1225

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 Sample Color: gray-brown



ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

Specifications No Specs

Sample Meets Specs? N/A

% Gravel = 0.2%  $D_{(10)} = 0.047$  mm % Sand = 83.9%  $D_{(15)} = 0.071$  mm % Silt & Clay = 15.9%  $D_{(30)} = 0.156$  mm Liquid Limit = n/a  $D_{(50)} = 0.243$  mm Plasticity Index = n/a  $D_{(60)} = 0.286$  mm

Sand Equivalent = n/a  $D_{(90)} = 0.417$  mm Dust Ratio = 9/52 Fracture %, 1 Face = n/a re % 2+ Faces = n/a

Coeff. of Curvature,  $C_C = 1.80$ Coeff. of Uniformity,  $C_U = 6.07$ Fineness Modulus = 1.20

Plastic Limit = n/a

Moisture %, as sampled = 5.2% Req'd Sand Equivalent = ►

Req'd Fracture %, 1 Face =

		Actual Cumulative	Interpolated Cumulative			ľ			Grain	Size Distril	oution							
Sieve Size		Percent	Percent	Specs	Specs	Specs												
US	Metric	Passing	Passing	Max	Min		2 8	0.0 4-6°	1½ 17% 1.8%	3/8	## #20	# 35 # 55 # 55	3854	×				100.09
12.00"	300.00		100%	100.0%	0.0%		Ī											
10.00"	250.00		100%	100.0%	0.0%		Ł					•					1 1	
8.00"	200.00		100%	100.0%	0.0%		90%		<del>├</del> ┼┼┼				+#	₩₩	+#	#####		90.0%
6.00"	150.00		100%	100.0%	0.0%		-					l I						
4.00"	100.00		100%	100.0%	0.0%													
3.00"	75.00		100%	100.0%	0.0%		80%		ff-f	111111111	-111		7	####	11	mm		80.0%
2.50"	63.00		100%	100.0%	0.0%													
2.00"	50.00		100%	100.0%	0.0%		70%		₩.	-##-##	44	ш	44	<b>####</b>		######		70.0%
1.75"	45.00		100%	100.0%	0.0%		ļ					<b>   </b>						
1.50"	37.50		100%	100.0%	0.0%		ŀ											
1.25"	31.50		100%	100.0%	0.0%		60%							####				60.0%
1.00"	25.00		100%	100.0%	0.0%	pu pu	ł											
3/4"	19.00		100%	100.0%	0.0%	% Passing	50%			-444-4-4-4								50.0%
5/8"	16.00		100%	100.0%	0.0%	≥€	50%		mm						T		1	50.0%
1/2"	12.50		100%	100.0%	0.0%		F						V					
3/8"	9.50	100%	100%	100.0%	0.0%		40%		<del>} } -}</del>			####	4#	####		#####		40.0%
1/4"	6.30		100%	100.0%	0.0%		-						1 II					
#4	4.75	100%	100%	100.0%	0.0%								1					
#8	2.36		100%	100.0%	0.0%		30%	<b></b>	<u> </u>	<del></del>		<del>                                      </del>	-+\	<del>     </del>	++			30.0%
#10	2.00	100%	100%	100.0%	0.0%		ŀ						11					
#16	1.18		96%	100.0%	0.0%		20%	<u> </u>	<u> </u>	-##-##	1 11			ШШ	1.1			20.0%
#20	0.850		94%	100.0%	0.0%													
#30	0.600		93%	100.0%	0.0%		-											
#40	0.425	92%	92%	100.0%	0.0%		10%	<del>      </del>	<del>}                                    </del>	*****		###	-+#	╫┼┼┼	+#	#####		10.0%
#50	0.300		63%	100.0%	0.0%		F											
#60	0.250		52%	100.0%	0.0%				LLL_L				الرحاء					0.001
#80	0.180		36%	100.0%	0.0%		U% <b>68</b>	100.000	10	1000	1.000		0.100		0.01	****	0.0	0.0% 01
#100	0.150	29%	29%	100.0%	0.0%													
#140	0.106		21%	100.0%	0.0%					Particle Sz	e (mm)							
#170	0.090		18%	100.0%	0.0%													
#200	0.075	15.9%	15.9%	100.0%	0.0%	+	Sieve Sizes	_	— <u>4</u> — Ma	ıx Specs	_	<u>—</u> м	n Specs	_		Sieve Re	sults	

Comments:

Reviewed by:

Materials Testing & Consulting, Inc. 777 Chrysler Drive

Burlington, WA 98233

Lab Sample: B-5 @ 2.5' Mission Hill Road Geotechnical Investigation Tulalip, WA

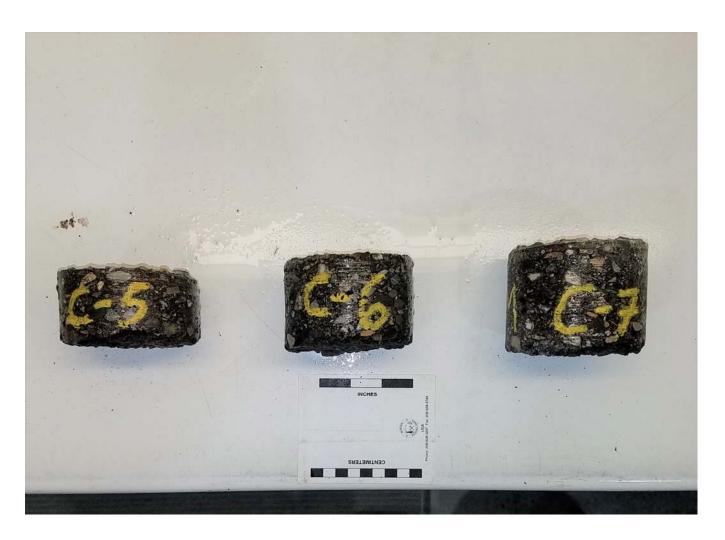
# **APPENDIX E. ASPHALT CONDITIONS**

**Table 3: Auger Borehole and Core Exploration Data** 

Borehole Number	Asphalt Thickness (inches)	Base Material Fill Thickness/Type (inches)
B-1	2 ½	6 / Pit Run
B-2	2	6 / Pit Run
B-3	2 ½	6 / Pit Run
B-4	2 ½	6 / Pit Run
B-5	3	4 / Pit Run
Core Number	Asphalt Thickness (inches)	Base Fill Material Type
C-1	2	Pit Run
C-2	2	Pit Run
C-3	2 1/4	Pit Run
C-4	2 1/4	Pit Run
C-5	2	Pit Run
	2.1/	Pit Run
C-6	2 ½	



**Photo I:** Photo of asphalt cores C-1 to C-4 from left to right. Scale in inches and centimeters.



**Photo J:** Photo of asphalt cores C-5 to C-7 from left to right. Scale in inches and centimeters.