

The Tulalip Tribes of Washington



Pavement Rehabilitation and Safety Improvements Projects

**28th Drive NW – 81st Street NE Housing Area Roads –
Totem Beach Road**

Project No. 2022-04

Contract Documents

April 2022

**Pavement Rehabilitation and Safety
Improvements Projects 28th Drive NW –
81st Street NE Housing Area Roads – Totem
Beach Road**

Tulalip Tribes Project No.: 2022-04

Contract Documents

Prepared for

The Tulalip Tribes
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Tulalip, WA 98271

Prepared by

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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.



4/27/2022

Prepared by Dmitri Victorovic Suslikov, PE

Checked by Austin Fisher, PE

Approved by Happy David Longfellow, PE

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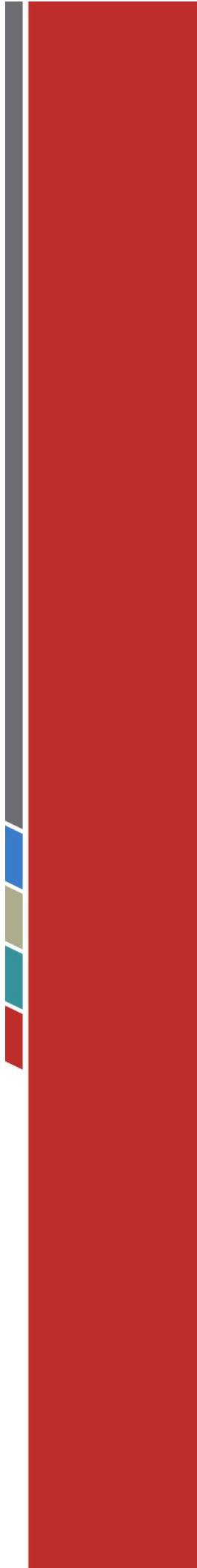
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Division 0

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 No.: 2022-04

Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road in accordance with the Drawings and Specifications prepared by: Parametrix 206-394-3649, hlongfellow@parametrix.com. The Roads and Transportation Manager for the Project is Christina Parker, 360.913.4205, christinaparker@tulaliptribes-nsn.gov.

The Pavement Rehabilitation 2021 – Schedule A: 28th Drive NW project will include pavement rehabilitation of the existing streets, removal and replacement of existing curb and gutter, Hot Mix Asphalt (HMA) pavement, replacement of existing driveways, storm sewer improvements, installation of a water quality treatment device, underdrains, and Fire Hydrant resetting.

Schedule B: 81st Street NE project will include pavement rehabilitation of the existing streets, partial removal and replacement of existing curb and gutter, Hot Mix Asphalt (HMA) pavement, storm sewer improvements, installation of a water quality treatment and infiltration device, and illumination improvements.

Schedule C: Totem Beach Road will include pavement rehabilitation of the existing streets, removal and replacement of existing curb and gutter, removal and replacement of existing sidewalk, Hot Mix Asphalt (HMA) pavement, HMA Overlay, replacement of existing driveway entrances, storm sewer and bioswale improvements.

The projects are located on the Tulalip Indian Reservation.

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: Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road until May 19th, 2022, at 2PM, 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.tulaliptribes.com/InvitationToBid/TheTulalipTribes> or the Builders Exchange Site: www.bxwa.com and clicking on “Posted Projects”, “Public Works”, and “Tribal Agencies – Tulalip Tribes”. This online plan room provides Bidders with fully usable online documents with the ability to: download, view, print, order full/partial plan sets from numerous reprographic sources, and a free online digitizer/take-off tool. It is recommended that Bidders “Register” in order to receive

automatic e-mail notification of future addenda and to place themselves on the “Self-Registered Bidders List”. Bidders that do not register will not be automatically notified of addenda and will need to periodically check the on-line plan room for addenda issued on this project. Contact Builders Exchange of Washington at (425) 258-1303 should you require assistance with access or registration. The content available through bxwa.com is our property or the property of our licensors and is protected by copyright and other intellectual property laws. Access to project documents is intended for use by bidders (general contractors/prime bidders, subcontractors and suppliers), agency personnel and agency’s consultants, as well as for personal, noncommercial, use by the public. You may display or print the content available for these uses only. “Harvesting” (downloading, copying, and transmitting) of any project information and/or project documents for purposes of reselling and/or redistributing information by any other party is not allowed by BXWA.

The Tulalip Tribes of Washington

CONFIDENTIALITY AGREEMENT

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

I / we, the undersigned, have been provided certain confidential and proprietary information (“Confidential Information”) regarding the Tulalip Tribes of Washington for the Project identified as Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road, Tulalip Tribes Project No.: 2022-04 (“Project”). “Confidential Information” shall include, without limitation, all financial information, data, materials, products, manuals, business plans, marketing plans, Project design documents, or other information disclosed or submitted orally, in writing, or by any other media.

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

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

Agreed to and accepted:

Signature: _____

Title: _____

Printed Name: _____

DATE: _____

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The Tulalip Tribes of Washington

INSTRUCTIONS TO BIDDERS

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

Article 1	Contract Information
Article 2	Bidding Procedures
Article 3	Bid Opening & Consideration of Bids
Article 4	Withdrawal of Bid
Article 5	Bid Estimate
Article 6	Bid Guaranty and Contract Bond
Article 7	Contract Award and Execution
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 must comply with The Tulalip Code, Chapter 9.05 – TERO Code and the rules, regulations and orders of the TERO Commission.
- 1.1.2 With respect to each Project / Contract of \$10,000 or more, operating within the exterior boundaries of the Tulalip Reservation or on Tribal Projects off the Reservation, the Contractor shall pay a onetime Fee of 1.75% of the total Project / Contract cost, i.e., equipment labor, materials and operations and any increase of the Contract / Project or Subcontract amount. If the Contractor initially enters into a Contract of less the \$10,000, but subsequent changes in the Work increases the total Contract / Project amount to \$10,000 or more, the TERO Fee shall apply to the total amount including increases.
- 1.1.3 The General Contractor shall be responsible for paying all TERO fees, including those attributable to the subcontractors. The fee shall be due in full prior to commencement of any work under the Contract / Project. However, where good cause is shown, the TERO Representative may authorize the General Contractor to pay said fee in installments over the course of the contract, when:
 - 1.1.3.1 The decision whether to authorize an alternative arrangement, which, if allowed, shall be in writing, shall rest solely with the discretion of the TERO Representative.
- 1.1.4 Whenever an employer or union would be required by any provision of The Tulalip Code, Chapter 9.05 – TERO Code to give preference in employment, such

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

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

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

- 1.1.5 The preference requirements contained in The Tulalip Code, Chapter 9.05 – TERO Code shall be binding on all contractors and subcontractors, regardless of tier, and shall be deemed a part of all resulting contract agreements.
- 1.1.6 For more information about The Tulalip Code, Chapter 9.05 – TERO Code, contact the Tulalip Tribes” TERO Department at 6406 Marine Drive, Tulalip, Washington 98271, Office (360) 716-4747 or Facsimile (360) 716-0249. The Tulalip TERO Code is available for review on the Tulalip TERO website: <http://www.tulaliptero.com>.
- 1.1.7 The following requirements apply to the Bid Award Criteria and Procedures for the Project:
 - 1.1.7.1 The bidding is open to all contractors meeting the requirements of RCW.
 - 1.1.7.2 The Contract will be awarded based on competitive bidding process detailed in these instructions and the Tulalip Code.
 - 1.1.7.3 Minimum TERO Participation Requirements for Employment:
 - 1.1.7.3.1 A minimum of fifteen percent (15%) of the entire project work force shall be “Preferred Employees” as defined in The Tulalip Code, Chapter 9.05 – TERO Code.
 - 1.1.7.3.2 The total number of “Preferred Employees” employed by the Bidder, and those employed by its subcontractors shall be used to determine if Bidder satisfies the minimum requirement.
 - 1.1.7.3.3 Bidders are encouraged to exceed the minimum requirement for employment.

- 1.1.7.4 Not Used.
- 1.1.7.5 Minimum TERO Participation Requirements in contracting with NAOB Subcontractors and Suppliers:
 - 1.1.7.5.1 Bidders are encouraged to contract with NAOB Subcontractors and Suppliers.
 - 1.1.7.5.2 Bidders shall list their NAOB Subcontractors and Suppliers on the Bid Form in Section IV B, pursuant to paragraph IB 3.5.6.
- 1.1.7.6 Bidder shall be considered nonresponsive if they do not meet the minimum requirements contained in this paragraph IB 1.1.7.

1.2 NOT USED.

1.3 GIVING NOTICE

- 1.3.1 Whenever any provision of the Contract Documents requires the giving of notice, such notice shall be deemed to have been validly given if delivered personally to the individual or to a member of the entity for whom the notice is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address of such individual or entity known to the giver of the notice.
 - 1.3.1.1 All notices provided to the Bidder from the Construction Manager shall be copied to the Engineer.
 - 1.3.1.2 All notices provided to the Bidder from the Engineer shall be copied to the Construction Manager.
 - 1.3.1.3 All notices provided to the Engineer from the Bidder shall be copied to the Construction Manager.
 - 1.3.1.4 All notices provided to the Construction Manager from the Bidder shall be copied to the Engineer.
- 1.3.2 When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first, and include the last, day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, such day will be omitted from the computation and such period shall be deemed to end on the next succeeding day which is not a Saturday, Sunday, or legal holiday.
- 1.3.3 The effective date of any and all notices, regardless of the method of delivery, shall be the date of receipt.

1.4 USE OF FACSIMILE TRANSMISSION

- 1.4.1 Any notice required to be given by the Contract Documents may be given by facsimile transmission, provided the original signed notice is delivered pursuant to paragraph IB 1.3.1.
- 1.4.2 Notice of withdrawal of a bid may be given by facsimile transmission provided an original signed document is received within three (3) business days of the facsimile transmission.

ARTICLE 2 - BIDDING PROCEDURES

2.1 EXAMINATION OF CONTRACT DOCUMENTS AND PROJECT SITE

- 2.1.1 The Bidder shall examine all Contract Documents, including without limitation the Drawings and Specifications for all divisions of Work for the Project, noting particularly all requirements which will affect the Bidder's Work in any way. In addition, the Bidder must carefully examine all Contract Documents because laws and rules applicable to other Tribal projects are not necessarily applicable to this Project.
- 2.1.2 Failure of a Bidder to be acquainted with the extent and nature of Work required to complete any applicable portion of the Work, in conformity with all requirements of the Project as a whole wherever set forth in the Contract Documents, will not be considered as a basis for additional compensation.
- 2.1.3 The Bidder shall evaluate the Project site and related Project conditions where the Work will be performed, including without limitation the following:
 - 2.1.3.1 The condition, layout and nature of the Project site and surrounding area;
 - 2.1.3.2 The availability and cost of labor;
 - 2.1.3.3 The availability and cost of materials, supplies and equipment;
 - 2.1.3.4 The cost of temporary utilities required in the bid;
 - 2.1.3.5 The cost of any permit or license required by a local or regional authority having jurisdiction over the Project;
 - 2.1.3.6 The generally prevailing climatic conditions;
 - 2.1.3.7 Conditions bearing upon transportation, disposal, handling, and storage of materials.
- 2.1.4 Unless otherwise specified in the Contract Documents, borings, test excavations and other subsurface information, if any, are provided solely to share information available to the Tulalip Tribes of Washington and any use of, or reliance upon, such items by the Bidder is at the risk of the Bidder. The Bidder shall be afforded access to the Project site to obtain the Bidder's own borings, test excavations and other subsurface information upon request made to the Construction Manager not less than ten (10) days prior to the opening of the bids.

2.2 PRE-BID MEETING

- 2.2.1 No Pre-Bid meeting will be held.

2.3 INTERPRETATION

- 2.3.1 If the Bidder finds any perceived ambiguity, conflict, error, omission or discrepancy on or between any of the Contract Documents, including without limitation the Drawings and Specifications, or between any of the Contract Documents and any applicable provision of law, including without limitation, the current International Building Code, the Bidder shall submit a written request to the Engineer, through the Construction Manager, for an interpretation or clarification.
- 2.3.1.1 The Bidder shall be responsible for prompt delivery of such request.
- 2.3.1.2 In order to prevent an extension of the bid opening, the Bidder is encouraged to make all requests for interpretation or clarification a minimum of seven (7) days before the bid opening.
- 2.3.2 If the Engineer determines that an interpretation or clarification is warranted, the Engineer shall issue an Addendum and the Construction Manager shall provide a copy to each person of record holding Contract Documents in accordance with paragraph IB 1.3. Any Addendum shall be deemed to have been validly given if it is delivered via facsimile, issued and mailed, or otherwise furnished to each person of record holding the Contract Documents. If any Addendum is issued within 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, the bid opening shall automatically be extended one (1) week, with no further advertising required.
- 2.3.3 Any interpretation or clarification of the Contract Documents made by any person other than the Engineer, or in any manner other than a written Addendum, shall not be binding and the Bidder shall not rely upon any such interpretation or clarification.
- 2.3.4 The Bidder shall not, at any time after the execution of the Contract, be compensated for a claim alleging insufficient data, incomplete, ambiguous, conflicting or erroneous Contract Documents, any discrepancy on or between Contract Documents, or incorrectly assumed conditions regarding the nature or character of the Work, if no request for interpretation or clarification regarding such matter was made by the Bidder prior to the bid opening.

2.4 STANDARDS

- 2.4.1 The articles, devices, materials, equipment, forms of construction, fixtures and other items named in the Specifications to denote kind quality or performance requirement shall be known as Standards and all bids shall be based upon those Standards.
- 2.4.2 Where two or more Standards are named, the Bidder may furnish any one of those Standards.

2.5 NOT USED.

2.6 BID FORM

- 2.6.1 Each bid shall be submitted on the Bid Form and sealed in an envelope clearly marked as containing a bid, indicating the Project name, the Contractor scope of work, and the date of the bid opening on the envelope.
- 2.6.1.1 Any change, alteration or addition in the wording of the Bid Form by a Bidder may cause the Bidder to be rejected as not responsible for award of a Contract.

- 2.6.1.2 Unless the Bidder withdraws the bid as provided in IB Article 4, the Bidder will be required to comply with all requirements of the Contract Documents, regardless of whether the Bidder had actual knowledge of the requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.
- 2.6.2 The Bidder shall fill in all relevant blank spaces in the Bid Form in ink or by typewriting and not in pencil.
- 2.6.2.1 The Bidder shall show bid amounts for the Total Base Bid and any Alternate(s) in both words and figures. In the case of a conflict between the words and figures, the amount shown in words shall govern, where such words are not ambiguous. When the Bidder's intention and the meaning of the words are clear, omissions or misspellings of words will not render the words ambiguous.
- 2.6.2.2 Any alteration or erasure of items filled in on the Bid Form shall be initialed by the Bidder in ink.
- 2.6.3 When an Alternate is listed on the Bid Form, the Bidder shall fill in the applicable blank with an increased or decreased bid amount. The Tulalip Tribes of Washington reserves the right to accept or reject any or all bids on Alternates, in whole or in part, and in any order. Voluntary Alternates submitted by a Bidder are prohibited from becoming the basis of the Contract award.
- 2.6.3.1 If no change in the bid amount is required, indicate "No Change" or "\$0 dollars".
- 2.6.3.2 Failure to make an entry or an entry of "No Bid," "N/A," or similar entry for any Alternate by a Bidder may cause the Bidder to be rejected as nonresponsive only if that Alternate is selected.
- 2.6.3.3 If an Alternate is not selected, an entry by a Bidder as listed in paragraph IB 2.6.3.2 on that Alternate will not, by itself, render a Bidder nonresponsive.
- 2.6.3.4 In a combined bid, a blank entry or an entry of "No Bid," "N/A," or similar entry on an Alternate will cause the bid to be rejected as nonresponsive only if that Alternate applies to the combined bid and that Alternate is selected.
- 2.6.4 Each bid shall contain the name of every person interested therein. If the Bidder is a corporation, partnership, sole proprietorship, or limited liability company, an officer, partner or principal of the Bidder, as applicable, shall print or type the legal name of the Bidder on the line provided and sign the Bid Form. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided and sign the Bid Form on behalf of that member. All signatures must be original.
- 2.6.5 Subject to the provisions of this paragraph IB 2.6, the completed Bid Form of the Bidder with whom the Tulalip Tribes of Washington executes a Contract Form shall be incorporated into the Contract Form as if fully rewritten therein.

2.7 REQUIRED SUBMITTALS WITH BID FORM

- 2.7.1 A Bidder shall be rejected as nonresponsive if the Bidder fails to submit the following submittals with the Bid Form in a sealed envelope:
 - 2.7.1.1 If the Bid is restricted to certified Tulalip Tribal Member NAOBs or NAOBs, then Bidder shall submit evidence of certification from the Tulalip Tribes TERO office as being a certified NAOB for the identified NAOB category.
 - 2.7.1.2 A Bid Guaranty as provided in paragraph IB 6.1.
 - 2.7.1.3 A Power of Attorney of the agent signing for a Surety which is licensed in Washington, when a Bid Guaranty and Contract Bond is submitted.
 - 2.7.1.4 Native American Owned Business Written Confirmation Documentation for each Tulalip Tribal Member NAOB and NAOB firm listed on the Bidder's Bid Form.

2.8 UNIT PRICES

- 2.8.1 When Unit Prices are requested on the Bid Form, the scheduled quantities listed are to be considered as approximate and are to be used only for the comparison of bids for purposes of award of the Contract and to determine the maximum quantity to be provided without a Change Order. If Unit Prices are stated to be sought only for informational purposes, they shall not be used for comparison of bids.
- 2.8.2 Unless otherwise specified in the Contract Documents, the Unit Prices set forth shall include all materials, equipment, labor, delivery, installation, overhead, profit and any other cost or expense, in connection with or incidental to, the performance of that portion of the Work to which the Unit Prices apply. The Bidder shall submit Unit Prices for all items listed unless other instructions are stated on the Bid Form.
- 2.8.3 Where there is a conflict between a Unit Price and the extension thereof made by the Bidder, the Unit Price shall govern and a corrected extension of such Unit Price shall be made and such corrected extension shall be used for the comparison of the bids and to determine the maximum quantity to be provided without a Change Order.
- 2.8.4 The Bidder agrees that the Tulalip Tribes of Washington may increase, decrease or delete entirely the scheduled quantities of Work to be done and materials to be furnished after execution of the Contract Form.
- 2.8.5 Payments, except for lump sum items in Unit Price Contracts, will be made to the Contractor only for the actual quantities of Work performed or materials furnished in accordance with the Contract Documents.
- 2.8.6 If the cost of an item for which a Unit Price is stated in the Contract changes substantially so that application of the Unit Price to the quantities of Work proposed will create an undue hardship on the Tulalip Tribes of Washington or the Contractor, the applicable Unit Price may be equitably adjusted by Change Order.

2.9 CHANGE IN THE BID AMOUNT

- 2.9.1 Any change to a previously submitted bid shall be made in writing and must be received by the Tulalip Tribes of Washington before the time scheduled for the bid opening, as determined by the employee or agent of the Tulalip Tribes of Washington designated to open the bids.
- 2.9.2 Changes shall provide an amount to be added or subtracted from the bid amount, so that the final bid amount can be determined only after the sealed envelope is opened.
- 2.9.3 If the Bidder's written instruction reveals the bid amount in any way prior to the bid opening, the bid shall not be opened or considered for award of a Contract.

2.10 COPIES OF THE DRAWINGS AND SPECIFICATIONS

- 2.10.1 The Contractor shall maintain at the Project site the permits and one (1) complete set of Drawings and Specifications approved by the Tribes, city, local or state building department having lawful jurisdiction over the project.
- 2.10.2 Unless otherwise specified in the Contract Documents, the Engineer, through the Construction Manager, shall furnish to the Contractor, free of charge, four (4) sets of Drawings and Specifications if the Contract price is \$500,000 or less, and seven (7) sets of Drawings and Specifications if the Contract price is in excess of \$500,000.

ARTICLE 3 – BID OPENING AND CONSIDERATION OF BIDS

3.1 DELIVERY OF BIDS

- 3.1.1 It is the responsibility of the Bidder to submit the bid to the Tulalip Tribes of Washington at the designated location prior to the time scheduled for bid opening.
- 3.1.2 If the bid envelope is enclosed in another envelope for the purpose of delivery, the exterior envelope shall be clearly marked as containing a bid with the Project name, the scope of Work or Contract and the date of the bid opening shown on the envelope.
- 3.1.3 No bid shall be considered if it arrives after the time set for the bid opening as determined by the employee or agent of the Tulalip Tribes of Washington designated to open the bids.

3.2 BID OPENING

- 3.2.1 Sealed bids will be received at the office designated in the Notice to Bidders until the time stated when all bids will be opened, read aloud and the tabulation made public.
- 3.2.2 The public opening and reading of bids is for informational purposes only and is not to be construed as an acceptance or rejection of any bid submitted.
- 3.2.3 The contents of the bid envelope shall be a public record and open for inspection, upon request, at any time after the bid opening.

3.3 BID OPENING EXTENSION

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

3.4 BID EVALUATION CRITERIA

- 3.4.1 The Tulalip Tribes of Washington reserves the right to accept or reject any bid or bids and to award the Contract to any remaining Bidder the Tulalip Tribes of Washington determines to be the lowest responsive and responsible Bidder pursuant to paragraph IB 3.5.1 or the most responsive and responsible Bidder pursuant to paragraph IB 3.5.2 The Tulalip Tribes of Washington reserves the right to accept or reject any or all Alternates, in whole or in part, and the right to reject any Alternate or Alternates and to accept any remaining Alternate or Alternates. Alternates may be accepted or rejected in any order.
- 3.4.2 The Tulalip Tribes of Washington may reject the bid of any Bidder who has engaged in collusive bidding.
- 3.4.3 The Tulalip Tribes of Washington reserves the right to waive, or to allow any Bidder a reasonable opportunity to cure, a minor irregularity or technical deficiency in a bid, provided the irregularity or deficiency does not affect the bid amount or otherwise give the Bidder a competitive advantage. Noncompliance with any requirement of the Contract Documents may cause a Bidder to be rejected.
- 3.4.4 The Tulalip Tribes of Washington may reject all bids for one or more bid packages, prior to, during or after evaluation of Bidders pursuant to paragraph IB 3.5.8, and may advertise for other bids, using the original estimate or an amended estimate, for such time, in such form and in such newspapers as the Tulalip Tribes of Washington may determine.

3.5 BID EVALUATION PROCEDURE

- 3.5.1 The Contract will be awarded to the lowest responsive and responsible Bidder as determined in the discretion of the Tulalip Tribes of Washington, unless Bidders are advised during the bidding process award will be made pursuant to paragraph IB 3.5.2, or all bids will be rejected in accordance with applicable Tribal Ordinances or Codes.
- 3.5.1.1 In determining which Bidder is lowest responsive and responsible, the Tulalip Tribes of Washington shall consider the Base Bid, the bids for any Alternate or Alternates and the bids for any Unit Price or Unit Prices which the Tulalip Tribes of Washington determines to accept.
- 3.5.1.2 If the Request for Bid Proposal is not restricted to certified NAOB firms preference in the Bid Award will be given to the certified NAOB firm with the lowest responsive bid if that bid is within budgetary limits established for the project or activity for which the bids are being taken and no more than "X" higher than the bid prices of the lowest responsive bid from any certified non-NAOB bidder as set forth in The Tulalip Code, Chapter 9.05 – TERO Code paragraph 9.05.340 (3).
- 3.5.1.3 The total of the bids for accepted Alternate(s) and Unit Price(s) will be added to the Base Bid for the purpose of determining the lowest Bidder.

- 3.5.1.4 If two or more Bidders submit the same bid amount and are determined to be responsive and responsible, the Tulalip Tribes of Washington reserves the right to select one Bidder in the following manner:
 - 3.5.1.4.1 If the Request for Bid Proposal is restricted to NAOB Firms and a majority of the funds used to pay the contract or subcontract are derived from Tulalip tribal resources preference shall be given to the certified Tulalip Tribal Member NAOB Firms; otherwise, selection shall be by lot in the presence of all such Bidders in such a manner as the Construction Manager shall determine and such selection shall be final.
 - 3.5.1.4.2 If the Request for Bid Proposal is restricted to Tulalip Tribal Member Owned NAOB Firms selection shall be by lot in the presence of all such Bidders in such a manner as the Construction Manager shall determine and such selection shall be final.
 - 3.5.1.4.3 If the Request for Bid Proposal is not restricted to NAOB Firms selection shall be by lot in the presence of all such Bidders in such a manner as the Construction Manager shall determine and such selection shall be final.
- 3.5.2 When listing “Preferred Employees” related to Section I – KEY EMPLOYEES OF BIDDER shall only list KEY “Preferred Employees” committed to be employed by Bidder in the performance of Bidder’s self-performed scope of work.
 - 3.5.2.1 Key Employees are employees who are in a top supervisory position or performs a critical function such that an employer would risk likely financial damage or loss if that task were assigned to a person unknown to the employer.
 - 3.5.2.2 To be eligible for the award of points under this section Preferred Key Employees of Bidder shall be employed by the Bidder on the Project for 100% of the time the Bidder has crews on site performing work. Company owners are not eligible for the award of points under this section.
- 3.5.3 When listing “Preferred Employees” related to Section II – PREFERRED EMPLOYEES Bidder shall only list the number of “Preferred Employees” by each trade committed to be employed by Bidder in the performance of Bidder’s self-performed scope of work.
 - 3.5.3.1 To be eligible for the award of points under this section Preferred Employees shall be employed by the Bidder on the Project for a minimum of 80% of the time the Bidder has crews on site performing work. Company owners are not eligible for the award of points under this section.
- 3.5.4 Bidder shall not list the name of a “Preferred Employee” in more than one section. Should a “Preferred Employee” be listed in more than one section (i.e., Section I or II) the so named “Preferred Employee” will only be considered under Section I – KEY EMPLOYEES as a basis for award of points.

- 3.5.5 When listing lower tiered subcontractors and or suppliers related to Section IV – LIST OF LOWER TIERED SUBCONTRACTOR(S) AND OR SUPPLIER(S) Bidder shall identify the type of enterprise or organization Bidder intends to contract with in the columns titled “Type of Lower-Tier”. If Bidder intends to subcontract a certain portion of the work with a certified NAOB subcontractor, Bidder shall so designate by placing an “X” in the column titled “SUB” (abbreviated for subcontractor). If Bidder intends to purchase a certain portion of the work through a certified NAOB material supplier, Bidder shall so designate by placing an “X” in the column titled “SUP” (abbreviated for supplier). Bidder shall be awarded 100% of the value of the work subcontracted with a certified NAOB and ten-percent (10%) of the value of the work purchased through a certified NAOB material supplier in the determination of awarded points related to Section IV.
- 3.5.5.1 It is the expressed intent of paragraph IB 3.5.6 to encourage Bidders to contract with certified NAOB Firms in which the Bidder and enterprise or organization have no proprietary relationship (“Unrelated NAOB”). Points will only be awarded for contracting with Unrelated NAOB Firms.
- 3.5.5.2 In determining the award of points under paragraph IB 3.5.6, Lower tiered NAOB Firms shall have no proprietary relationship with other lower tiered NAOB Firms.
- 3.5.5.3 In determining the award of points under paragraph IB 3.5.6, equipment (unoperated) and tool rentals shall be considered as a supplier. Trucking (Dump, Low-boy, Long haul, etc.) and Operated Equipment Rental shall be considered as a subcontractor.
- 3.5.5.4 When Section IV – LIST OF LOWER TIERED SUBCONTRACTOR(S) AND OR SUPPLIER(S) is further defined by paragraph IB 1.1.7, which may include minimum requirements for contracting with Tulalip Tribal Member NAOB firms and NAOB firms, the provisions of paragraph IB 3.5.6 shall be applied to Tulalip Tribal Member NAOB and NAOB categories as defined by The Tulalip Code, Chapter 9.05 – TERO Code.
- 3.5.6 In determining whether a Bidder is responsible, factors to be considered include, without limitation:
- 3.5.6.1 Whether the Bidder’s bid responds to the Contract Documents in all material respects and contains no irregularities or deviations from the Contract Documents which would affect the amount of the bid or otherwise give the Bidder a competitive advantage.
- 3.5.6.2 Preference to Indians in hiring promotions, training and all other aspects of employment contracting and subcontracting;
- 3.5.6.3 Preferences required by Tribal Ordinances, Codes, or Laws;
- 3.5.6.4 The experience of the Bidder;
- 3.5.6.5 The financial condition of the Bidder;
- 3.5.6.6 The conduct and performance of the Bidder on previous contracts;
- 3.5.6.7 The facilities of the Bidder;
- 3.5.6.8 The management skills of the Bidder;

- 3.5.6.9 The ability of the Bidder to execute the Contract properly;
- 3.5.6.10 The evaluation of a bid below the median of other bids pursuant to paragraph IB 5.2.
- 3.5.6.11 Bidder's commitment to Safety and worker training.
- 3.5.7 The Construction Manager may obtain from the lowest or most responsive and responsible Bidder, as applicable, and such other Bidders as the Construction Manager determines to be appropriate any information appropriate to the consideration of factors showing responsibility, including without limitation the following:
 - 3.5.7.1 The two most responsive and responsible bidders will be requested to submit further documentation for both TERO Preferred Employment and the Tulalip Tribal Member NAOB and NAOB Subcontractor and Suppliers utilization commitments listed on the Bidder's Bid Form.
 - 3.5.7.1.1 Supplemental Documentation to be submitted to for each TERO Preferred Employee listed on the Bid Proposal Forms includes, but is not limited to:
 - 3.5.7.1.1.1 Proof of Enrollment issued by a Federally Recognized Indian Tribe or Alaska Native Corporation; or
 - 3.5.7.1.1.2 A signed letter issued by the Tulalip TERO Office certifying that the listed individuals are Preferred Employees.
 - 3.5.7.1.1.3 Bidders shall provide a project staffing plan or a manpowered loaded schedule for the project identifying when the Preferred Employees will be employed on the project and the duration thereof.
 - 3.5.7.1.2 Additional information to be submitted to for each NAOB listed on the Bid Form includes, but is not limited to:
 - 3.5.8.1.2.1 Correct business name, federal employee identification number (if available), and mailing address.
 - 3.5.7.1.2.2 List of all bid items assigned to each successful Tulalip Tribal Member NAOB or NAOB firm, including unit prices and extensions (if applicable).
 - 3.5.7.1.2.3 Description of partial items (if any) to be sublet to each successful Tulalip Tribal Member NAOB or NAOB firm specifying the distinct elements of work to be performed by the Tulalip Tribal Member NAOB or NAOB firm and including the dollar value of the Tulalip Tribal Member NAOB or NAOB firm's portion.
 - 3.5.7.1.2.4 Submit evidence of certification for the Tulalip Tribal Member NAOB or NAOB.

- 3.5.7.1.3 Total amounts shown for each Tulalip Tribal Member NAOB or NAOB firm shall not be less than the amount shown on the Bid Form. This submittal, showing the Tulalip Tribal Member NAOB or NAOB firm work item breakdown, when accepted by the Contracting Agency and resulting in contract execution, shall become a part of the contract. A breakdown that does not conform to the Tulalip Tribal Member NAOB or NAOB utilization certified on the Bid Form or that demonstrates a lesser amount of Tulalip Tribal Member NAOB or NAOB participation than that included on the Bid Form will be returned for correction. The contract will not be executed by the Contracting Agency until a satisfactory breakdown has been submitted.
- 3.5.7.2 Overall experience of the Bidder, including number of years in business under present and former business names;
- 3.5.7.3 Complete listing of all ongoing and completed public and private construction projects of the Bidder in the last three years, including the nature and value of each contract and a name/address/phone number for each owner;
- 3.5.7.4 Complete listing of any public or private construction projects for which the Bidder has been declared in default; also, any EPA, OSHA, WISHA or other regulating entity issues or citations in the last ten (10) years;
- 3.5.7.5 Certified financial statement and bank references;
- 3.5.7.6 Description of relevant facilities of the Bidder;
- 3.5.7.7 Description of the management experience of the Bidder's project manager(s) and superintendent(s);
- 3.5.7.8 Complete list of subcontractors which the Bidder proposes to employ on the Project;
- 3.5.7.9 Current Washington Workers' Compensation Certificate or other similar type documentation supporting workers' compensation coverage;
- 3.5.7.10 Worker's Compensation Rating for current and previous 5 years; and
- 3.5.7.11 If the Bidder is a foreign corporation, i.e., not incorporated under the laws of Washington, a Certificate of Good Standing from the Secretary of State showing the right of the Bidder to do business in the State; or, if the Bidder is a person or partnership, the Bidder has filed with the Secretary of State a Power of Attorney designating the Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action brought under this Contract.
- 3.5.8 Each such Bidder's information shall be considered separately and not comparatively. If the lowest or most responsive Bidder, as applicable, is responsible, the Contract shall be awarded to such Bidder or all bids are rejected.
- 3.5.9 If the lowest or most responsive Bidder, as applicable, is not responsible, and all bids are not rejected, the Tulalip Tribes of Washington shall follow the procedure set forth in paragraph IB 3.5.8 with each next lowest or most responsive Bidder, as

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

3.6 REJECTION OF BID BY THE TULALIP TRIBES OF WASHINGTON

- 3.6.1 If the lowest or most responsive Bidder, as applicable, is not responsible, the Tulalip Tribes of Washington shall reject such Bidder and notify the Bidder in writing by certified mail of the finding and the reasons for the finding.
- 3.6.2 A Bidder who is notified in accordance with paragraph IB 3.6.1 may object to such Bidder's rejection by filing a written protest which must be received by the Tulalip Tribes of Washington, through the Construction Manager, within five (5) days of the notification provided pursuant to paragraph IB 3.6.1.
- 3.6.3 Upon receipt of a timely protest, representatives of the Tulalip Tribes of Washington shall meet with the protesting Bidder to hear the Bidder's objections.
 - 3.6.3.1 No award of the Contract shall become final until after the representatives of the Tulalip Tribes of Washington have met with all Bidders who have timely filed protests and the award of the Contract is affirmed by the Tulalip Tribes of Washington.
 - 3.6.3.2 If all protests are rejected in the Tulalip Tribes of Washington's discretion the award of the Contract shall be affirmed by the Tulalip Tribes of Washington or all bids shall be rejected.

3.7 NOTICE OF INTENT TO AWARD

- 3.7.1 The Tulalip Tribes of Washington shall notify the apparent successful Bidder that upon satisfactory compliance with all conditions precedent for execution of the Contract Form, within the time specified, the Bidder will be awarded the Contract.
- 3.7.2 The Tulalip Tribes of Washington reserves the right to rescind any Notice of Intent to Award if the Tulalip Tribes of Washington determines the Notice of Intent to Award was issued in error.

ARTICLE 4 – WITHDRAWAL OF BID

4.1 WITHDRAWAL PRIOR TO BID OPENING

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

4.2 WITHDRAWAL AFTER BID OPENING

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

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

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

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

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

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

4.3 REFUSAL BY TULALIP TRIBES OF WASHINGTON TO ACCEPT WITHDRAWAL

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

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

4.4 REFUSAL BY BIDDER TO PERFORM

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

4.5 EFFECT OF WITHDRAWAL

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

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

ARTICLE 5 – BID ESTIMATE

5.1 BID TOTALS

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

5.2 SUBSTANTIALLY LOW BID

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

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

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

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

ARTICLE 6 – BID GUARANTY AND CONTRACT BOND

6.1 BID GUARANTY

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

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

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

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

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

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

- 6.1.3 If the blank line on the Bid Guaranty and Contract Bond or Bid Proposal Bond is not filled in, the penal sum will automatically be the full amount of the Base Bid plus add Alternates. If the blank line is filled in, the amount must not be less than the full amount of the Base Bid plus add Alternates, stated in dollars and cents. A percentage is not acceptable.
- 6.1.4 The Bid Guaranty and Contract Bond or Bid Proposal Bond must be signed by an authorized agent, with Power of Attorney, from the Surety. The Bid Guaranty and Contract Bond or Bid Proposal Bond must be issued by a Surety licensed to transact business in the State of Washington.
- 6.1.5 Bid Guaranties will be returned to all unsuccessful Bidders 90 days after the bid opening. If used, the cashier's check will be returned to the successful Bidder upon compliance with all conditions precedent for execution of the Contract Form.

6.2 FORFEITURE

- 6.2.1 If for any reason, other than as authorized by paragraph IB 4.2.1 or paragraph IB 6.3, the Bidder fails to execute the Contract Form, and the Tulalip Tribes of Washington awards the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, the Bidder who failed to enter into a Contract shall be liable to the Tulalip Tribes of Washington for the difference between such Bidder's bid and the bid of the next lowest or most responsible Bidder, as applicable, or for a penal sum not to exceed five (5) percent of the bid amount, whichever is less.
- 6.2.2 If the Tulalip Tribes of Washington then awards a Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, and such Bidder also fails or refuses to execute the Contract Form, the liability of such lowest or most responsive and responsible Bidder, as applicable, shall, except as provided in paragraph IB 6.3, be the amount of the difference between the bid amounts of such lowest or most responsible Bidder, as applicable, and another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, but not in excess of the liability specified in paragraph IB 6.2.1. Liability on account of an award to each succeeding lowest or most responsive and responsible Bidder, as applicable, shall be determined in like manner.
- 6.2.3 If the Tulalip Tribes of Washington does not award the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder, as applicable, but resubmits the Project for bidding, the Bidder failing to execute the Contract Form shall, except as provided in paragraph IB 6.3, be liable to the Tulalip Tribes of Washington for a penal sum not to exceed five (5) percent of such Bidder's bid amount or the costs in connection with the resubmission, of printing new Contract Documents, required advertising and printing and mailing notices to prospective Bidders, whichever is less.

6.3 EXCEPTION TO FORFEITURE

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

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

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

6.4 CONTRACT BOND

- 6.4.1 If the Bidder executes the Contract Form, the Bidder shall, at the same time, provide a Bond meeting the requirements of the Contract Documents, unless the Bidder provided an acceptable Bid Guaranty and Contract Bond at the time of the bid opening. A "A- VII" or better Best Rated Surety Company shall issue the required bond.
- 6.4.2 The Bond shall be in the full amount of the Contract to indemnify the Tulalip Tribes of Washington against all direct and consequential damages suffered by failure of the Contractor to perform according to the provisions of the Contract and in accordance with the plans, details, specifications and bills of material therefore and to pay all lawful claims of Subcontractors, Material Suppliers, and laborers for labor performed or materials furnished in carrying forward, performing or completing the Contract.
- 6.4.3 The Bond shall be supported by a Power of Attorney of the agent signing for a Surety. The Bond shall be supported by a current and signed Certificate of Compliance or Certificate of Authority showing the Surety is licensed to do business in Washington.

6.5 NOT USED

ARTICLE 7 – CONTRACT AWARD AND EXECUTION

7.1 NONCOMPLIANCE WITH CONDITIONS PRECEDENT

- 7.1.1 The award of the Contract and the execution of the Contract Form are based upon the expectation that the lowest or most responsive and responsible Bidder, as applicable, will comply with all conditions precedent for execution of the Contract Form within ten (10) days of the date of the Notice of Intent to Award.
- 7.1.1.1 Noncompliance with the conditions precedent for execution of the Contract Form within ten (10) days of the date of the Notice of Intent to Award shall be cause for the Tulalip Tribes of Washington to cancel the Notice of Intent to Award for the Bidder's lack of responsibility and award the Contract to another Bidder which the Tulalip Tribes of Washington determines is the next lowest or most responsive and responsible Bidder,

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

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

7.2 TIME LIMITS

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

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

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

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

7.3 CONDITIONS PRECEDENT FOR EXECUTION OF CONTRACT FORM

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

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

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

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

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

7.3.5 Contractor signed Contract Form;

7.3.6 Completed and approved TERO Contracting and Subcontracting Compliance plan;

7.3.7 Current Tulalip Tribes Business License; and

7.3.8 Completed and signed Confidentiality Agreement.

7.4 NOTICE TO PROCEED AND SUBMITTALS

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

7.4.1.1 Contract Cost Breakdown;

7.4.1.2 Preliminary schedule of Shop Drawings and Submittals;

7.4.1.3 Outline of qualifications of the proposed superintendent; and

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

ARTICLE 8 – APPLICABLE LAW AND FORUM

8.1 FORUM FOR EQUITABLE RELIEF

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

8.2 FORUM FOR MONEY DAMAGES

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

The Tulalip Tribes of Washington

BID PROPOSAL FORM

Project Name: Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road Date of Bid: _____

Location of Project: 28th Drive NW;
81st Street NE Housing Area Roads;
And Totem Beach Road
Tulalip, WA 98271

COMPANY NAME OF BIDDER: _____

CERTIFIED NATIVE AMERICAN OWNED BUSINESS:

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

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

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

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

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

Tulalip Tribes Project No.:
2022-04

**Pavement Rehabilitation and Safety Improvements
Projects 28th Drive NW – 81st Street NE Housing
Area Roads – Totem Beach 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

PAVEMENT REHABILITATION AND SAFETY IMPROVEMENTS PROJECTS 28TH DRIVE NW – 81ST STREET NE HOUSING AREA ROADS – TOTEM BEACH ROAD

SCHEDULE OF PRICES

SCHEDULE A – 28th Dr NW

SCHEDULE B – 81st St NE

SCHEDULE C – Totem Beach Road

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

Schedule A: 28th Dr. NW – BASE BID					
ITEM NO.	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
A-1	MOBILIZATION	L.S.	1	\$	\$
A-2	CLEARING AND GRUBBING	ACRE	0.3	\$	\$
A-3	REMOVING DRAINAGE STRUCTURE	EACH	3	\$	\$
A-4	REMOVING STORM SEWER PIPE	L.F.	25	\$	\$
A-5	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	1	\$	\$
A-6	REMOVING CEMENT CONC. SIDEWALK	S.Y.	60	\$	\$
A-7	REMOVING CEMENT CONC. CURB AND GUTTER	L.F.	990	\$	\$
A-8	REMOVING ASPHALT CONC. PAVEMENT	S.Y.	1,650	\$	\$
A-9	ROADWAY EXCAVATION INCL. HAUL	C.Y.	710	\$	\$
A-10	PVC UNDERDRAIN PIPE 6 IN. DIAM.	L.F.	200	\$	\$
A-11	EXTRA EXCAVATION	C.Y.	50	\$	\$
A-12	FOUNDATION MATERIAL	TON	90	\$	\$
A-13	STORMWATER TREATMENT VAULT	EACH	1	\$	\$
A-14	CATCH BASIN TYPE 1	EACH	10	\$	\$
A-15	CORRUGATED POLYETHYLENE STORM SEWER PIPE 12 IN. DIAM.	L.F.	470	\$	\$
A-16	DUCTILE IRON SEWER PIPE 12 IN. DIAM	L.F.	25		
A-17	LEVEL SPREADER TRENCH	L.S.	1	\$	\$
A-18	RESETTING EXISTING HYDRANTS	EACH	1	\$	\$
A-19	CRUSHED SURFACING BASE COURSE	TON	830	\$	\$
A-20	CEMENT CONC. DRIVEWAY	S.Y.	180	\$	\$
A-21	HMA CL. 1/2 IN. PG 58H-22	TON	270	\$	\$
A-22	SILT FENCE	L.F.	200	\$	\$
A-23	TOP SOIL TYPE A	ACRE	0.1	\$	\$
A-24	SEEDING AND FERTILIZING	S.Y.	230	\$	\$
A-25	INLET PROTECTION	EACH	7	\$	\$
A-26	EROSION CONTROL AND WATER POLLUTION PREVENTION	L.S.	1	\$	\$

Schedule A: 28th Dr. NW – BASE BID					
ITEM NO.	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
A-27	CEMENT CONC. TRAFFIC CURB AND GUTTER	L.F.	990	\$	\$
A-28	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1	\$	\$
A-29	MINOR CHANGE	L.S.	1	\$	\$
A-30	DEWATERING	L.S.	1	\$	\$
A-31	RESOLUTION OF UTILITY CONFLICTS	F.A.	1	\$ 45,000	\$ 45,000
A-32	POTHOLING	EACH	10	\$	\$
A-33	RECORD DRAWINGS (MINIMUM BID \$1,000)	L.S.	1	\$	\$
A-34	SHORING OR EXTRA EXCAVATION CLASS B	L.S.	1	\$	\$
A-35	ROADWAY SURVEYING	L.S.	1	\$	\$
A-36	BOLLARD TYPE	EACH	2	\$	\$
A-37	ADA FEATURES SURVEYING	L.S.	1	\$	\$
A-38	CEMENT CONC. CURB RAMP TYPE PERPENDICULAR A	EACH	2	\$	\$
Subtotal:				\$	\$
TERO (1.75%):				\$	\$
TOTAL (Including TERO):				\$	\$

Schedule A: 28th Dr. NW – BID ADDITIVE					
ITEM NO.	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
AD-1	REMOVING ASPHALT CONC. PAVEMENT	S.Y.	350	\$	\$
AD-2	ROADWAY EXCAVATION INCL. HAUL	C.Y.	40	\$	\$
AD-3	CRUSHED SURFACING BASE COURSE	TON	40	\$	\$
AD-4	CEMENT CONC. DRIVEWAY	C.Y.	320	\$	\$
AD-5	ROADWAY SURVEYING	L.S.	1	\$	\$
Subtotal:				\$	\$
TERO (1.75%):				\$	\$
TOTAL (Including TERO):				\$	\$

SCHEDULE B: 81st St NE					
ITEM NO.	ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
B-1	MOBILIZATION	L.S.	1	\$	\$
B-2	REMOVING CEMENT CONC. PAVEMENT	S.Y.	500	\$	\$
B-3	REMOVING CEMENT CONC. CURB AND GUTTER	L.F.	530	\$	\$
B-4	REMOVING ASPHALT CONC. PAVEMENT	S.Y.	4,000	\$	\$
B-5	ROADWAY EXCAVATION INCL. HAUL	C.Y.	900	\$	\$
B-6	STORMWATER TREATMENT CATCH BASIN	EACH	1	\$	\$
B-7	CHAMBER SYSTEM	L.S.	1	\$	\$
B-8	CATCH BASIN TYPE 1	EACH	2	\$	\$
B-9	CORRUGATED POLYETHYLENE STORM SEWER PIPE 12 IN. DIAM.	L.F.	26	\$	\$
B-10	DUCTILE IRON SEWER PIPE 12 IN. DIAM.	L.F.	22	\$	\$
B-11	CRUSHED SURFACING BASE COURSE	TON	1,300	\$	\$
B-12	SPEED HUMPS	EACH	8	\$	\$
B-13	HMA CL. 1/2 IN. PG 58H-22	TON	760	\$	\$
B-14	SILT FENCE	L.F.	90	\$	\$
B-15	TOPSOIL TYPE A	ACRE	0.2	\$	\$
B-16	SEEDING AND FERTILIZING	S.Y.	800	\$	\$
B-17	INLET PROTECTION	EACH	11	\$	\$
B-18	MEDIUM COMPOST	S.Y.	75	\$	\$
B-19	EROSION CONTROL AND WATER POLLUTION PREVENTION	L.S.	1	\$	\$
B-20	CEMENT CONC. TRAFFIC CURB AND GUTTER	L.F.	560	\$	\$
B-21	ILLUMINATION SYSTEM MODIFICATIONS, COMPLETE	L.S.	1	\$	\$
B-22	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1	\$	\$
B-23	MINOR CHANGE	L.S.	1	\$	\$
B-24	ADJUST CATCH BASIN	EACH	1	\$	\$
B-25	DEWATERING	L.S.	1	\$	\$
B-26	RESOLUTION OF UTILITY CONFLICTS	F.A.	1	\$ 40,000	\$ 40,000
B-27	POTHOLING	EACH	2	\$	\$
B-28	RECORD DRAWINGS (MINIMUM \$1,000)	L.S.	1	\$	\$
B-29	ROADWAY SURVEYING	L.S.	1	\$	\$
B-30	GRAVEL BACKFILL FOR DRAIN	C.Y.	50	\$	\$
Subtotal:				\$	
TERO (1.75%):				\$	
TOTAL (Including TERO):				\$	

SCHEDULE C: Totem Beach Road					
ITEM NO.	SECTION ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
C-1	MOBILIZATION	L.S.	1	\$	\$
C-2	REMOVING CEMENT CONC. SIDEWALK	S.Y.	1,500	\$	\$
C-3	REMOVING CEMENT CONC. CURB AND GUTTER	L.F.	2,740	\$	\$
C-4	REMOVING ASPHALT CONC. PAVEMENT	S.Y.	5,800	\$	\$
C-5	REMOVING GUARDRAIL	L.F.	100	\$	\$
C-6	REMOVING GUARDRAIL ANCHOR	EACH	2	\$	\$
C-7	REMOVING PAINT LINE	L.F.	20	\$	\$
C-8	REMOVING STORM SEWER PIPE	L.F.	150	\$	\$
C-9	ROADWAY EXCAVATION INCL. HAUL	C.Y.	2,200	\$	\$
C-10	BIORETENTION SWALE	L.F.	180	\$	\$
C-11	PVC UNDERDRAIN PIPE 6 IN. DIAM.	L.F.	250	\$	\$
C-12	EXTRA EXCAVATION	C.Y.	50	\$	\$
C-13	FOUNDATION MATERIAL	TON	90	\$	\$
C-14	CATCH BASIN TYPE 1	EACH	4	\$	\$
C-15	SOLID WALL PVC STORM SEWER PIPE 12 IN. DIAM.	L.F.	230	\$	\$
C-16	CRUSHED SURFACING BASE COURSE	TON	2,200	\$	\$
C-17	PLANING BITUMINOUS PAVEMENT	S.Y.	2,510	\$	\$
C-18	HMA CL. 1/2 PG 58H-22	TON	2,400	\$	\$
C-19	HMA CL. 1/2 IN. PG 58H-22 FOR OVERLAY	TON	300	\$	\$
C-20	HMA CL. 1/2 IN. PG 58H-22 FOR PAVEMENT REPAIR	S.Y.	500	\$	\$
C-21	TOPSOIL TYPE A	ACRE	0.2	\$	\$
C-22	SEEDING, FERTILIZING, AND MULCHING	L.S.	1	\$	\$
C-23	CHECK DAM	L.F.	15	\$	\$
C-24	INLET PROTECTION	EACH	26	\$	\$
C-25	WATTLE	L.F.	1,400	\$	\$
C-26	EROSION CONTROL AND WATER POLLUTION PREVENTION	L.S.	1	\$	\$
C-27	CEMENT CONC. TRAFFIC CURB AND GUTTER	L.F.	2,900	\$	\$
C-28	BEAM GUARDRAIL TYPE 31	L.F.	180	\$	\$
C-29	BEAM GUARDRAIL ANCHOR TYPE 10	EACH	2	\$	\$
C-30	PAINT LINE	L.F.	4,300	\$	\$
C-31	PLASTIC CROSSWALK LINE	S.F.	180	\$	\$
C-32	PLASTIC STOP LINE	L.F.	40	\$	\$
C-33	PERMANENT SIGNING	L.S.	1	\$	\$
C-34	PUD CONDUIT INSTALLATION, COMPLETE	L.S.	1	\$	\$
C-35	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1	\$	\$
C-36	POTHOLING	EACH	5	\$	\$
C-37	DEWATERING	L.S.	1	\$	\$
C-38	RESOLUTION OF UTILITY CONFLICTS	F.A.	1	\$	\$

SCHEDULE C: Totem Beach Road					
ITEM NO.	SECTION ITEM DESCRIPTION	UNIT	APPROX. QTY.	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLAR CENTS
C-39	MINOR CHANGE	L.S.	1	\$	\$
C-40	RECORD DRAWING (MINIMUM BID \$1,000)	L.S.	1	\$	\$
C-41	ROADWAY SURVEYING	L.S.	1	\$	\$
C-42	ADJUST MANHOLE	EACH	3	\$	\$
C-43	ADJUST VALVE BOX	EACH	10	\$	\$
C-44	SHORING OR EXTRA EXCAVATION CLASS B	L.S.	1	\$	\$
C-45	CEMENT CONC. SIDEWALK	S.Y.	1,400	\$	\$
C-46	CEMENT CONC. DRIVEWAY ENTRANCE TYPE	S.Y.	80	\$	\$
Subtotal:				\$	
TERO (1.75%):				\$	
TOTAL (Including TERO):				\$	

BID SUMMARY

Schedule A Total (including 1.75% TERO):	\$
Schedule B Total (including 1.75% TERO):	\$
Schedule C Total (including 1.75% TERO):	\$
TOTAL BASE BID (Schedule A + Schedule B + Schedule C):	\$
Schedule A – Bid Additive (including 1.75% TERO)	\$
TOTAL BID (TOTAL BASE BID + Schedule A – Bid Additive):	\$

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

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

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

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

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

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

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

(Insert Number of Employees)

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

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

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

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

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

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

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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 based on 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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The Tulalip Tribes of Washington

NON - COLLUSION DECLARATION

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

NON-COLLUSION DECLARATION

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

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

NOTICE TO ALL BIDDERS

To report rigging activities call:

1-800-424-9071

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

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

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The Tulalip Tribes of Washington

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

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

BIDDER'S NAME (PRINT): _____

Authorized Signature: _____

Title: _____

Company Name: _____

Mailing Address: _____

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

Where Incorporated: _____

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

The Tulalip Tribes Business License Number: _____

State of Washington Contractor's License Number: _____

Federal ID Number: _____

Contact Person for Contract processing: _____

BIDDER'S NAME (PRINT): _____

Authorized Signature: _____

Title: _____

Company Name: _____

Mailing Address: _____

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

Where Incorporated: _____

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

The Tulalip Tribes Business License Number: _____

State of Washington Contractor's License Number: _____

Federal ID Number: _____

Contact Person for Contract processing: _____

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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

JOB ORDER

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

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

Foreman to contact / cell:

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

Print Name	Signature	Title	Date
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----- Office use only -----

Recommended by	Date	Managers Signature	Date	Yes	NO
				Approved	
Notes:					

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Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

To Be Submitted with the Bid Proposal

Project Name _____

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

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

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

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

Subcontractor Name _____
Work to be performed _____

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

SR

DOT Form 271-015 EF
Revised 08/2012

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The Tulalip Tribes of Washington

NAOB Written Confirmation

**Native American Owned Business (NAOB)
Written Confirmation Document**

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

Contract Title: _____

Bidder's Business Name: _____

NAOB's Business Name: _____

NAOB Signature: _____

NAOB's Representative _____

Name and Title: _____

Date: _____

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

Description of Work: _____

Amount to be Awarded to NAOB: _____

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The Tulalip Tribes of Washington

FORM OF BID GUARANTY & CONTRACT BOND

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

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

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

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

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

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

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

SIGNED this _____ day of _____, _____

PRINCIPAL:

By: _____

Title: _____

SURETY:

Address: _____

Phone: (____) _____

By: _____

Attorney-in-Fact

SURETY AGENT:

Address: _____

Phone: (____) _____

The Tulalip Tribes of Washington

STATEMENT OF INTENDED SURETY
(Required if Bid Deposit is NOT a Surety Bond)

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

Surety:

Signature of Authorized Representative

Printed Name / Title of Authorized Representative

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

By: _____

Title: _____

SURETY:

Address: _____

Phone: (____) _____

By: _____

Attorney-in-Fact

SURETY AGENT:

Address: _____
Phone: (____) _____

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The Tulalip Tribes of Washington

BID PROPOSAL BOND

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

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

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

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

Principal _____
(Name) _____
(Address) _____

By _____
(Signature of Authorized Rep)

(Typed Name of Authorized Rep)
Title _____

SURETY
Name _____
By _____
(Attorney-in-fact for Surety)

(Name & Address of local Office or Agent)

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

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DRAFT AIA® Document A312™ - 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

« »
« »

SURETY:

(Name, legal status and principal place of business)

« »
« »

OWNER:

(Name, legal status and address)

« »
« »

CONSTRUCTION CONTRACT

Date: « »

Amount: \$ « »

Description:

(Name and location)

« »
« »

BOND

Date:

(Not earlier than Construction Contract Date)

« »

Amount: \$ « »

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature:

Name and « »

Title:

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

Signature:

Name and « »

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

« »
« »
« »

OWNER'S REPRESENTATIVE:

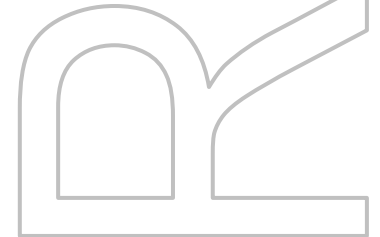
(Architect, Engineer or other party:)

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ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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

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



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§ 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, including all TERO obligations, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 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, including any TERO liabilities, and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 Upon notice as set forth in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

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

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

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after completion of the Work under the Construction Contract; 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 thirty (30) 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 and costs 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 two years 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 Substantial Completion of the Work under the Construction Contract, whichever of (1) or (2) first occurs. Notwithstanding the foregoing, any proceeding, legal or equitable, under this Bond and involving the Owner shall be governed by the choice of law and venue provisions set forth in the Construction Contract and Surety agrees to be bound thereto and consents to jurisdiction as set forth therein

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

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

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

§ 16 Definitions

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

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

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract, including any TERO obligations. 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 term Claimant also includes the Tulalip Tribal Employment Rights Office (TERO). 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, TERO obligations, 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 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 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:

«Surety agrees that electronic signatures (whether digital or encrypted) and/or scanned copies of original signatures on this document is intended to authenticate this bond and shall have the same force and effect as manual signatures and original copies. Such electronically signed or scanned/PDF versions of this AIA Document A312, Performance Bond shall be fully enforceable against the Surety »

(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: _____
Name and Title: << >><< >>
Address: << >>

Signature: _____
Name and Title: << >><< >>
Address: << >>



DRAFT AIA® Document A312™ - 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

« »
« »

SURETY:

(Name, legal status and principal place of business)

« »
« »

OWNER:

(Name, legal status and address)

« »
« »

CONSTRUCTION CONTRACT

Date: « »

Amount: \$ « »

Description:

(Name and location)

« »
« »

BOND

Date:

(Not earlier than Construction Contract Date)

« »

Amount: \$ « »

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

Signature:

Name and « »

Title:

SURETY

Company: (Corporate Seal)

Signature:

Name and « »

Title:

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

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

« »
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« »

OWNER'S REPRESENTATIVE:

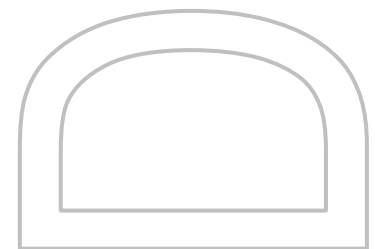
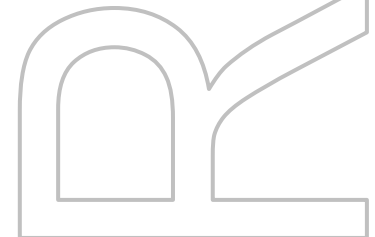
(Architect, Engineer or other party:)

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ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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

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



ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

§ 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, including all warranty obligations, 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 The Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed complete the performance of the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; or
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety and 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 Upon notice of default under Section 3.2 above, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 4.1 Undertake to perform and complete the Construction Contract itself, including all warranty obligations, through its agents or independent contractors, which shall not include the Contractor without prior written consent of the Owner;

§ 4.2 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 6 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 4.3 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances, but in no less than thirty (30) days from receipt of Owner's notice in Section 3:

- .1 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.

§ 5 If the Surety does not proceed as provided in Section 4 within the time period set forth in Section 4.3, 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 4.3, 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.

§ 6 If the Surety elects to act under Section 4.1 or 4.2, 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 in accordance with the Construction Contract, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract, including all warranty work;

- .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 4; 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.

§ 7.1 If the Surety elects to act under Section 4.3.1, the Surety's liability is limited to the amount of this Bond. In such instance, the Owner shall inform the Surety of the estimate of its actual costs to complete the Project, including the additional legal, design professional and delay costs resulting from the Contractor's Default, and liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance, which shall be remitted to the Owner within fourteen (14) days. At the completion of the Construction Contract, including the warranty period, the Owner shall return, without interest, any overpayment made by the Surety and the Surety shall pay to the Owner any actual costs which exceed the Owner's estimate, limited to the bond amount.

§ 7.2 If the Surety elects to act under Section 4.3.2, the Surety's liability is limited to the amount of this Bond, but Surety shall also be responsible for the attorneys' fees and costs incurred by the Owner related to any dispute over the Surety's obligations. If the Surety denies liability in whole or in part, the parties shall promptly proceed to the dispute resolution process as set forth in the Construction Contract.

§ 8 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, except as allowed under applicable law. 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.

§ 9 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.

§ 10 Any proceeding, legal or equitable, under this Bond may shall be governed by the choice of law and venue provisions set forth in the Construction Contract and Surety agrees to be bound thereto and consents to jurisdiction as set forth therein. Such proceeding 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.

§ 11 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.

§ 12 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.

§ 13 Surety agrees that electronic signatures (whether digital or encrypted) and/or scanned copies of original signatures on this document is intended to authenticate this bond and shall have the same force and effect as manual signatures and original copies. Such electronically signed or scanned/PDF versions of this AIA Document A312, Performance Bond shall be fully enforceable against the Surety.

§ 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 in accordance with the Construction Contract, to perform or otherwise to comply with a material term of the Construction Contract.

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

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

§ 16 Modifications to this bond are as follows:

« »

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

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

Signature:

Name and Title:

Address:

« »« »

« »

SURETY

Company:

(Corporate Seal)

Signature:

Name and Title:

Address:

« »« »

« »

The Tulalip Tribes of Washington

TRIBAL EMPLOYMENT RIGHTS OFFICE (TERO)

TULALIP TERO MISSION STATEMENT

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

Information

6404 Marine Drive, Tulalip, WA 98271

Office: (360) 716-4747

Fax: (360) 716-0612

Alternate Fax: (360) 716-0249

Driving Direction From Seattle:

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

Driving Direction From Mount Vernon:

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

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

Tulalip TERO office requires businesses to:

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

FREQUENTLY ASKED QUESTIONS

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

1. WHAT IS THE PURPOSE OF TERO?

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

2. WHY IS THERE A NEED FOR TERO?

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

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

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

- A. To ensure Native preference, employers need to submit and negotiate a detailed compliance plan of employer workforce needs with a TERO Compliance Officer.
- B. To utilize the TERO skills banks for all referrals and consider Native applicants before interviewing or hiring any Non-Native worker.
- C. To negotiate with the TERO Compliance Officer(s) the specific number of Natives in each job classification and to cooperate with tribal training programs to hire a certain number of trainees.
- D. To eliminate all extraneous job qualification criteria or personnel requirements which may act as a barrier to Native employment. TEROs are guided by EEOC guidelines for verifying legitimate Bona-fide Occupational Qualifications (BFOQ's).
- E. To keep in contact with the TERO office in order to resolve any employee problems and issues.
- F. To acknowledge and respect tribal religious beliefs and cultural difference and to cooperate with TERO to provide reasonable accommodations.
- G. All employers who have collective bargaining agreements with one or more unions must secure a written agreement from their unions indicating that they will comply with TERO.
- H. The TERO certified worker shall be treated the same as the other employees. There will be a Zero tolerance to discrimination within the boundaries of the Tulalip Reservation.

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

4. *WHAT IS A COMPLIANCE PLAN?*

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

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

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

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

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

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

7. WHAT IS THE EXTENT OF TERO JURISDICTION?

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

8. ARE THERE ANY EXEMPTIONS TO TERO REQUIREMENTS?

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

9. WILL TERO INTERRUPT MY DAILY BUSINESS OPERATIONS?

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

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

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

11. ARE EMPLOYERS PROTECTED AGAINST UNFAIR TERO VIOLATION CHARGES?

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

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

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

- A. Deny such party the right to commence business on the reservation;
- B. Impose a civil fine on such party ranging on most reservations anywhere from \$500.00 to \$5,000.00 per violation;
- C. Terminate or suspend party's operation and deny them the rights to conduct further business on the reservation; and or
- D. Order any party to dismiss any illegally hired Non-Natives, take action to ensure future compliance and to make back payment of any lost wages be paid to the TERO certified Native Americans.

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

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

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

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

14. ARE TERO FEES LEGAL?

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

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

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

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

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

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

- A. The Civil Rights Handbook.
- B. The Job Training and Partnership Act.
- C. The Small Business Administration 8(a) Program.
- D. Public Law 93-638, The Indian Education Assistance and Self-Determination Act of 1974.
- E. HUD Regulations.
- F. BIA Acquisition Assistance Agreement 84-1.
- G. EEOC / TERO Contracts.
- H. OFCCP Indian Employment Initiative.
- I. FHWA ISTEA "Indians in Highway Construction Initiative".
- J. Indian Health Service Alaska Native Hiring Agreement.
- K. US DOL/BAT Notice 84-1.
- L. Indian Education Impact and Programs Under PL 81-815 (Construction) and PL 81-874 (OPS/Admin).

CONTRACTORS

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

TERO ACKNOWLEDGMENT:

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

TERO LIAISON:

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

NATIVE AMERICAN OWNED BUSINESS REGISTRY:

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

TERO COMPLIANCE PLAN:

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

COMPLIANCE PLAN WORKFORCE/ KEY EMPLOYEE:

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

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

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

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

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

TERO HIRING HALL & RECRUITMENT EFFORTS:

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

NATIVE PREFERENCE:

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

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

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

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

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

JOB QUALIFICATIONS, PERSONNEL REQUIREMENTS & RELIGIOUS ACCOMMODATIONS:

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

TRAINING:

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

LAY-OFFS:

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

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

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**THE TULALIP TRIBES
CONSTRUCTION CONTRACT**

**Contractor –
Project No. 2022-04**

This agreement entered into this ____ day of _____, 2022, between “Owner” the Tulalip Tribes 6406 Marine Drive., Tulalip, WA 98271 and _____, hereinafter referred to as “Contractor”. In these Contract Documents, the Owner may also be referred to as Contracting Agency.

**SECTION ONE
DESCRIPTION OF WORK**

This Contract consists of this written agreement and all appurtenant “Contract Documents” described in Section Eight of this Contract. Contractor shall perform the following work in accordance with this Contract and Contract documents: The provision of all labor, materials, tools, equipment, and everything necessary to build ____ (“Work”).

**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 its Work. Progress payments shall be made to the Contractor under terms and conditions described under Section Four of this Contract.

**SECTION THREE
SUBCONTRACTING REQUIREMENTS**

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

**SECTION FOUR
PROGRESS PAYMENTS**

- (A) The Owner shall make progress payments approximately every 30 days as the Work proceeds, on estimates of Work accomplished which meets the standards of quality established under the Contract, as approved by the Engineer, Project Coordinator and Engineer. Payments shall be processed for each draw request within 30 days of final approval once all requested and required documents are received.
- (B) The documents required to submit for payment will be a draw form, invoice, certified payroll, conditional waiver, release of claim and anything else deemed necessary by the Engineer.
- (C) Before the first progress payment is made under this Contract, the Contractor shall furnish, in such detail as requested by the Engineer, a breakdown of the total Contract price showing the amount included therein for each principle category of the Work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deduction from the Contract price. The Contractor shall prorate its overhead and profit over the construction period of the Contract.

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

- (1) The amounts requested are only for performance in accordance with the specifications, terms and conditions of the Contract:
- (2) Payments due to Sub-contractors and the Contractors material suppliers have been made from previous payments received under the Contract, and timely payments will be made from the proceeds of the payment covered by this certification in accordance with Subcontract agreements; and
- (3) The request for progress payments does not include any amounts, which the Contractor intends to withhold or retain from a subcontractor or their supplier in accordance with the terms and conditions of the Subcontract.

NAME: _____

TITLE: _____

DATE: _____

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

(F) The Engineer may authorize material delivered on site and preparatory Work taken into consideration when computing progress payments. Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Engineer; (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 Engineer may require to assure the protection of the Owners interest in such material. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the Owner.

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

SECTION FIVE FINAL PAYMENT

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

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

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

(B) Prior to making any payment, the Engineer 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 Engineer 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. Payment by the Tulalip Tribes shall not release the Contractor or its surety from any obligation under the Contract or under the Performance and Payment Bonds, which obligations shall continue through the Contract warranty period.

SECTION SIX STARTING AND COMPLETION DATES

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

SECTION SEVEN LIQUIDATED DAMAGES

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

SECTION EIGHT CONTRACT DOCUMENTS

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

- a. **This Instrument**
- b. **Notice to Bidders attached as EXHIBIT A**
- c. **Project Specs (Scope of Work) attached as EXHIBIT B**
- d. **Contract Documents (Bidding Requirements, contract forms, and conditions of contract, Special Provisions, Plans and Appendices, and the Standard Specifications for Road, Bridge, and Municipal Construction, 2022 edition as issued by the Washington State Department of Transportation (WSDOT) ("Standard Specifications")) - EXHIBIT C**

These Contract Documents together form the Contract for the Work herein described. The parties intend that the documents include provisions for all labor, equipment, tools, materials and other items necessary for the execution and completion of the Work and all terms and conditions of payment. The documents also include all work and procedures not expressly indicated therein which are necessary for the proper execution of the project. If there is a conflict between the above Contract Documents, the inconsistency shall be resolved by the following order: (i) Addenda issued after this Contract is executed, (ii) this Contract, (iii) Proposal Form, (iv) Special Provisions, (v) Contract Plans, (vi) Amendments to the Standard Specifications, (v) Standard Specifications, and (vi) Standard Plans. The order of precedence shall not apply when Work is required by one part of the Contract but omitted from another part or parts of the Contract. The Work required in

one part must be furnished even if not mentioned in other parts of the Contract. Any conflicts not so resolved shall be resolved as set forth in Section 31.

SECTION NINE

AUTHORITY OF OWNER CONTRACTING COORDINATOR and ENGINEER

The Owner will designate Engineer for purposes of this agreement, who may be changed from time to time. The duties and authority of the Engineer shall be as follows:

- (A) General Administration of Contract. The primary function of the Engineer is to provide general administration of the contract as representative during the entire period of construction.
- (B) Inspection, Opinions and Progress Reports. The Engineer shall keep familiar with the progress and quality of the Work being performed by Contractors and their subcontractors. The Engineer will make general determinations as to whether the Work is proceeding in accordance with the Contract. Neither Owner nor the Engineer will be responsible for the means of construction or for Contractor failure to perform the Work properly and in accordance with The Contract document.
- (C) Access to worksite for inspections. The Engineer 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 Engineer is not required to make exhaustive or continuous on-site inspections to perform the duty of checking and reporting on Work progress.
- (D) Interpretation of Contract Documents. The Engineer will be the interpreter of the Contract Documents requirements and will make decisions on claims and disputes between the Contractor and the Owner.
- (E) Rejection and stoppage of Work. The Engineer shall have authority to reject Work, which in the officer's opinion does not conform to the Contract Documents and, in this connection, to stop the Work or a portion thereof when necessary to insure Contractor's performance is in accordance with the terms of this agreement.
- (F) Progress payment certification. The Engineer will determine the amount owing to the Contractor as the Work progresses, based on Contractor's application for payment as per Section Four and upon the Engineer's inspections and observation, and will issue certificates for progress payments and final payment in accordance with the terms of the Contract.

SECTION TEN

RESPONSIBILITY OF CONTRACTOR

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

- (A) Responsibility for and supervision of construction. Contractor represents that it has inspected and is familiar with the worksite and the local conditions under which the Work is to be performed. Contractor shall be solely responsible for all construction under this Contract, including the techniques, sequences, procedures, and means for coordination of all Work. Contractor shall properly supervise and direct the work of the employees and subcontractors, and shall give all attention necessary for such proper direction
- (B) Contractor's Representative. Contractor's representative for this contract will be _____ . Contractor's representative shall be the point of contact regarding contract compliance issues and shall have the authority to obligate the company in resolving contract compliance and performance issues. Contractor's Representative, or designated Contractor construction superintendent, must be on-site at all times while any Work under this Contract is being performed, unless Contractor's representative or construction superintendent receives prior authorization from the Owner to be offsite.

- (C) Discipline and employment. Contractor shall maintain at all times strict discipline among its workers and agrees not to employ for work on the project any persons unfit or without sufficient skill to perform the job for which he was employed.
- (D) Furnishing of labor, materials, etc. Contractor shall provide and pay for all labor, and or materials and equipment, including but not limited to tools, construction equipment, machinery, utilities including water, transportation, and all other facilities and services necessary for the proper completion of the Work on the project in accordance with the Contract documents.
- (E) Manufacturer's instructions. Contractor shall comply with manufacture's installation instructions and recommendations to the extent that those instruction and recommendations are more explicit or stringent than requirements contained within Contract documents.
- (F) Payment of taxes, procurement of license and permits. Contractor shall pay any taxes required by law in connection with Work on the project and shall secure all licenses and permits necessary for proper completion of the Work, paying the fees therefore. The Tulalip Tribes of Washington is a federally recognized Indian Tribal Government with a constitution and bylaws approved by the United States Secretary of the Interior. See: 65 Federal Register 13298, 13301 (March 13, 2000). As a recognized tribal government, the Tulalip Tribes of Washington and all of its governmental agencies, is a tax exempt entity. See: 26 USC §7871, and Washington Administrative Code Excise Tax Rule 192 (WAC 458-20-192). All or portions of this project are Tax Exempt from all Sales and/or Use Taxes for all materials and supplies incorporated in construction of the Work that become a permanent part of the Project. Upon request a Tax Exemption form may be obtained from the Tulalip Tribes. WAC 458-20-192(5)(a)(ii) states that retail sales tax is not imposed if the retailer service (e.g. construction services) is performed for the member or tribe in Indian country.
- (G) Compliance with laws and regulations. Contractor shall comply with all applicable laws and ordinances, and rules, regulations, or orders of all tribal and or public authorities relating to the performance of the Work herein. If any of the Contract documents are at variance there with, he shall notify the Engineer promptly on discovery of such variance.
- (H) Responsibility for negligence of employees and subcontractors. Contractor assumes full responsibility for acts, negligence, or omission of its employees and all other persons doing Work under a subcontract with Contractor.
- (I) Warranty of fitness of equipment and materials. Contractor represents and warrants to the Owner that all equipment and materials used in the Work and made a part of any structure thereon, or placed permanently in connection therewith, will be new unless otherwise specified in the Contract documents, of good quality, free of defects, and in conformity with the Contract documents. It is understood between the parties that all the equipment and materials that are not so in conformity are defective.
- (J) Cleaning and protection. Contractor shall during handling and installation, clean and protect construction in progress and adjoining materials in place. Contractor shall apply protective covering where required ensuring protection from damage or deterioration.
- (K) Furnishing of design and engineering plans as identified in the Contract Documents. Contractor shall furnish the Engineer, upon request, all design and engineering plans for consideration and approval as to conformance with the specifications of the Contract documents.
- (L) Clean up. Contractor agrees to keep the Work premises and adjoining way free of waste materials and rubbish caused by its Work or that of its subcontractors, and further shall remove all such waste materials and rubbish on termination of the project, together with all its tools, equipment and machinery.
- (M) Indemnity and hold harmless agreement. Contractor shall indemnify, defend and hold harmless the Tulalip Tribes its elected and appointed officials, officers, employees, agents and representatives from and against 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, loss, penalties, fines judgment, or decrees, including, but not limited to, 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 (collectively “Indemnified Loss”), related to or arising out of the Work, this Contract, or by any intentional or willful misconduct, or any negligent act, error or omission of the Contractor, Contractors employees, agents or subcontractor, or anyone from whom they are legally liable.

The Contractor’s obligation shall include, but not be limited to, investigation, adjusting, and defending all claims alleging loss from Indemnified Loss. The Contractor’s obligations to indemnify, defend and hold harmless shall apply even if the Indemnified Loss, 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 it may have under any applicable worker’s compensation or workman’s compensation statute, solely for the purpose of this indemnification. The Contractor expressly agrees that it has provided for this waiver of immunity in the bid price for the Contract and will include similar waivers in its subcontracts. 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 Engineer to assure indemnification until disposition has been made of any suits or claims. Contractor agrees to pay all royalties and license fees necessary for the Work and to defend all actions and settle all claims for infringement of copyright or patent rights, and to save Owner harmless therefrom.

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

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

Policy Limits – Commercial General Liability

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

Policy Limits – Business Automobile Liability

\$1,000,000	Combined Single Limit
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There shall be no subsidence coverage exclusions or other coverage limitations without specific disclosure and approval of the Tulalip Tribes.

(P) Contractor's Workers Compensation.

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

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

(Q) Builder's Risk.

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

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

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

(R) Insurance Policy Requirements.

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

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

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

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

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

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

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

(T) Other Provisions.

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

1.2 Contractor shall indemnify, defend and hold the Tulalip Tribes harmless from all losses, damages, liabilities, fines penalties, cost (including clean-up cost) and expenses (including attorney's fees) arising from hazardous, toxic or harmful wastes, materials or substances, as defined by applicable law, deposited on or about the Project site by Contractor, Subcontractors, suppliers or materialmen or its or their agents or employees. Should any material that exhibits hazardous or toxic characteristics as defined in applicable law be brought onto the Project site by Contractor, Subcontractors, suppliers or materialmen or its or their agents or employees, that material will be handled, stored, transported and disposed of by Contractor in accordance with respective regulations and the best available technology. Should any such material be found on the Project site that was not brought onto the Project site by Contractor, Subcontractor, suppliers or materialmen or its or their agents or employees, Contractor shall immediately notify the Tulalip Tribes through the Engineer. 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 Contractor fails to maintain any and all insurance required by this Contract during the entire life of this Contract, the Tulalip Tribes may at its option, and without waiver of other available remedies, purchase such insurance in the name of Contractor and deduct the cost of same from payments due Contractor

(U) Inspection and Testing Laboratory Services.

1. Owner will appoint, employ, and pay for services of an independent firm to perform inspection and testing as identified in the Contract documents.
2. Site visits and retesting that is required because of the scheduling problems caused by the Contractor and/or non-conformance to specified requirements shall be performed by the same independent firm. Payment for retesting will be charged to the Contractor by deducting inspection or testing charges from the Contract Price.

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

be working at the jobsite per the Contractor's company policies.

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

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

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

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

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

(W) Archaeological and Historical Objects. Archaeological or historical objects, which may be encountered by the Contractor, shall be protected and not further disturbed. The Contractor shall immediately notify the Engineer of any such finds. The Engineer 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 Engineer 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. The payment and performance bonds are conditioned upon (i) faithful performance of all of the provisions of this Contract, including warranty obligations; (ii) the payment of all laborers, mechanics, Subcontractors, and Suppliers, and all persons who supply such persons with provisions in carrying out the Work; and (iii) payment of any liabilities, increases, or penalties (including TERO) incurred on the Project which may be due. Contractor's obligations under this Contract shall not be limited to the dollar amount of the bond. Such bonds shall be on Performance Bond and Payment Bond published by The American Institute of Architects (AIA) Form A312, as revised and included in the Contract Documents. Liability under each bond shall be 100%

percent of the applicable Contract price, for the base bid and alternates. Within the Performance and Payment Bonds, the surety(ies) must waive notice of any change orders and agree to be bound in all ways to the Tulalip Tribes for any such change order as if it (they) had received notice of the same. This bond will include a warranty guarantee of 5% of the Contract price to cover any defects found in the Work, during the warranty period. A Surety under the Performance Bond allowed by the Tulalip Tribes to complete the Work in the event of a default, termination, or other failure of the Contractor, shall comply fully with all Contract requirements and shall not use the defaulted or terminated Contractor for continuation of completion of the Work unless the Tulalip Tribes consent. Contractor shall attach a current copy of the power of attorney indicating authority and any limitations on all such bonds, and display the surety bond number on each bond.

Each party agrees that electronic signatures (whether digital or encrypted) and/or scanned copies of original signatures on any such bond is intended to authenticate the bond and shall have the same force and effect as manual signatures and original copies. Such electronically signed or scanned/PDF versions of the AIA Document A312TM, Payment Bond and Performance Bond shall be fully enforceable against the Surety.

SECTION ELEVEN EXAMINATION AND AUDIT

- (A) Examination. The Tulalip Tribes shall have the right to examine all books, records, documents and other data of the Contractor and of the Contractor's Subcontractors and Material Suppliers related to the bidding, pricing or performance of the Work, including without limitation, related to any Proposals and request for equitable adjustment of the Contract.
- (B) Inspection. The right of inspection, audit and reproduction shall extend to all documents necessary to permit intelligent evaluation of the cost of pricing data submitted along with the computations and projections used therein.
- (C) Availability. The above referenced materials shall be made available at the office of the Contractor, Subcontractor or Material Supplier, as applicable, at all reasonable times for inspection, audit and reproduction until the expiration of seven (7) years after the date of acceptance of the Project by the Tulalip Tribes of Washington.
- (D) Confidentiality. To the extent that the Contractor, Subcontractor or Material Supplier, as applicable, informs the Tulalip Tribes of Washington in writing that any documents copied by the Tulalip Tribes of Washington are trade secrets, the Tulalip Tribes shall treat such documents as trade secrets of the Contractor, Subcontractor or Materials Supplier, as applicable. In the event any dispute arises with any other person about whether such other persons should be given access to the documents, the Contractor, Subcontractor or Material Supplier, as applicable, agrees to indemnify the Tulalip Tribes of Washington against all costs, expenses, and damages, including without limitation attorney fees, incurred by reason of that dispute.

SECTION TWELVE TIME OF ESSENCE – 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 Engineer for such reasonable times as the Engineer may determine when in its 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, provided Contractor provides timely notice as required by this Contract.

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, it shall make necessary corrections so that such Work will so conform, and in addition will correct any defects caused by Contractor or by its subcontractor, appearing within one year from the date of issuance of a certificate of substantial completion for the project, or within such longer period as may be prescribed by law or as may be provided for by applicable special guarantees or warranties 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 Engineer. The Work shall be modified, and the contract price and completion time shall be modified only as set out in the written Field Directive / Contract Modification. Any adjustment in the Contract price resulting in a credit or a charge to Owner shall be determined by the mutual written agreement of the parties to this Contract.

SECTION FIFTEEN TERMINATION

This Contract may be terminated as follows:

(A) Termination by Owner. Owner may on seven (7) days' written notice to the Contractor terminate this Contract before the completion date hereof, and without prejudice to any other remedy Owner may have, when the Contractor defaults in performance of any provision herein, or fails to carry out the construction in accordance with the provision of the Contract documents. On such termination, Owner may take possession of the worksite 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 Engineer may terminate this contract in whole, or in part, whenever the Engineer 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 Engineer 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 ENGINEERS/DESIGN PROFESSIONAL DUTIES, RESPONSIBILITIES, AND AUTHORITY

(A) The Engineer is as defined in the Special Provisions, and has the obligations and authority as set forth in the Special Provisions and Standard Specifications. The Engineer may also be called the construction manager, Project Engineer, or resident engineer. Regardless of the title used, the Contractor shall treat such entity as the "Engineer" for all purposes under the Contract Documents.

(B) Any design professional engaged by the Owner for this contract and any successor shall be designated in writing by the Owner or Engineer.

(C) Any so designated design professional shall serve as the technical representative with respect to architectural, engineering, and design matters related to the Work performed under the Contract. Such design professional may provide direction with approval of the Engineer 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.

(D) The duties and responsibilities of any such design professional engaged by the Owner for this contract may include the following: (1) Make periodic visits to the worksite and on the basis of such on-site inspections, issues written reports to the Engineer which shall include all observed deficiencies. Such design professional 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 Engineer; (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 Engineer or Owner.

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 Engineer. 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 Engineer 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 Engineer 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 Engineer 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 Engineer has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Engineer 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 Engineer makes reasonable objection to such substitute.

(D) SUBCONTRACTUAL RELATIONS

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

(E) CONTINGENT ASSIGNMENT OF SUBCONTRACTORS

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

1. Assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 15 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and
2. Assignment is subject to the prior rights of the Contractor and surety, if any, obligated under bond relating to the Contract.

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

**SECTION EIGHTEEN
CONSTRUCTION SCHEDULE**

(A) **Ten (10) days prior to commencing Work**, the Contractor shall prepare and submit to the Engineer 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. Such Construction Schedule shall be in compliance with the Standard Specifications. If the Contractor fails to submit a schedule within the time prescribed, the Engineer 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 Engineer 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 Engineer under this clause shall be grounds for a determination by the Engineer 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 Engineer may terminate the Contractor's 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 it 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) Contractor shall comply with the provisions of Section 1-04.7 of the Standard Specifications. If the Engineer determines that different site conditions do not exist and no adjustment in time or cost is warranted, such decision shall be final.

(B) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required. If there is a decrease in the costs or time required to perform the Work, failure of the Contractor to notify the Engineer of the differing site conditions shall not affect the Owner's right to make an adjustment in the costs or time.

(C) No Claim by the Contractor for an equitable adjustment to the contract for differing site conditions shall be unless the Contractor has followed the procedures provided in Section 32 of this Contract and Section 1-04.5 of the Standard Specifications.

SECTION TWENTY-ONE SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION

- (A) The Contractor shall keep on the worksite a copy of the drawings and specifications, addenda and modification orders and shall at all times give the Engineer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. 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 Engineer for resolution. The Engineer 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 Engineer shall furnish from time to time such detailed drawings and other information as considered necessary.
- (B) “Shop drawings” means drawings, submitted to the Engineer 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 or 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 Engineer will not share or 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 Engineer without evidence of the Contractor’s approval may be returned for resubmission. The Engineer 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 Contractor’s risk. Approval by the Engineer 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 Engineer, upon consultation with any design professional engaged by the Owner for this contract, approves any such variation, the Engineer 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 Engineer 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 Engineer, 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 Engineer.
- (H) The Contractor shall promptly give written notice to the Engineer 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 Engineer, the Contractor shall provide to the Owner within ten (10) working days of acceptance of the Work accurate information to be used in the preparation of permanent set of as-built drawings. The Contractor shall record on one set of contract drawings all changes from the installations originally indicated. This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by lower tier contractors are the responsibility of the Contractor.

**SECTION TWENTY-THREE
PUNCH LIST & INSPECTION**

(A) Contractors Punch List. When the Work, or designated portion thereof, is near completion, the Contractor shall prepare a list of all deficient items remaining of the Work or the designated portion thereof (the “Contractor’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 Engineer.

(B) Punch List. Within (7) days of receipt of the request for Final Inspection the Engineer shall Work with the Project Coordinator, Engineer and applicable design professionals 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 Owner, Project Coordinator, and Engineer, and any design professional requested by Owner, shall conduct the Final Inspection to determine whether the Work, or designated portion thereof, is in conformity with the Contract Documents. The Engineer shall notify the Contractor, the Owner, Project Coordinator and the Engineer of the scheduled time of the Final Inspection.
- b. Within three (3) days of the Final Inspection, the Engineer shall notify the Contractor of any items remaining in a deficient or unacceptable condition. The list if such items shall be known as the 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 Engineer’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 Engineer the reasons the items cannot be so completed, and the Contractor shall propose to the Engineer a time when such items will be completed.
- b. Failure of the Owner or Project Coordinator and Engineer to include any items in the 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 Engineer’s Punch List are required due to the Contractor’s failure to properly and timely complete them, the Contractor shall be responsible for any additional costs incurred by other Contractors and Tulalip Tribes of Washington resulting from any attendant delay.

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

(E) Guarantee Period of Inspection. The Contractor will attend a walk-through of the Project scheduled by the Engineer 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 Engineer.

- a. The Engineer, with the assistance of any design professionals, 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 Engineer 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 Engineer may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop work order issued under these circumstances. Failure to receive notice from the Engineer 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 Engineer 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 Engineer 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 Engineer 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 worksite, 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 Engineer.

(C) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the worksite; 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 Engineer, unless such work is clearly specified in the specifications or other contract documents.

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

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

(J) The Contractor shall be responsible for any damages on account of settlement or the loss of lateral support of the adjoining 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 Engineer 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 Engineer 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 Engineer, the buildings may be abandoned and need not be removed.

(B) The Contractor shall, as directed by the Engineer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Engineer. 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 Engineer approves the Work performed under this contract. Acceptance may be partial or complete. (2) “Inspection” means examining and testing the Work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies during the normal course of construction as identified in the approved Construction Schedule) to determine whether it conforms to contract requirements. (3) “Testing” means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.

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

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

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

(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 Engineer. 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 Engineer 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 Engineer not to conform to Contract requirements, unless the Engineer 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 Engineer 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 Engineer, it must, if requested by the Engineer, 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 Engineer 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 or 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 Engineer 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. If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract price will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made or whether or not this Agreement has been terminated. Owner shall not be obligated to accept defective or non-conforming Work, or damages for the difference in value between conforming and defective or nonconforming Work, and in all cases Owner, in its sole and absolute discretion, shall be entitled to full removal and correction of defective or non-conforming Work. At all times, Owner shall be entitled to offset against any sum due and owing Contractor amounts associated with the removal and correction of defective or non-conforming Work.

(K) The Contractor shall notify the Engineer, 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 Engineer determines that the state of preparedness is as represented, the Engineer will conduct the inspection. Unless otherwise specified in the Contract, the Owner shall accept, as soon as practicable after completion and inspection by the Engineer, all Work required by the Contract or that portion of the Work the Engineer 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 Engineer 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 Engineer, the Contractor shall provide to the Engineer all special warranties required to be provided in the specifications or other Contract documents. Any such warranties to be provided by subcontractors, manufacturers, or suppliers shall comply with the provisions of subparagraph (E) (2) and (E) (3).

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

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

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

SECTION THIRTY PROHIBITIONS AGAINST LIENS

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

**SECTION THIRTY-ONE
CONFLICTS**

- (A) In the event of a conflict or discrepancy within, between or among any of the Contract Documents, not resolved by the order of precedence in Section 8 of this Contract, the Contractor shall promptly submit the matter in writing to the Engineer for resolution. The Engineer shall promptly make a determination in writing. Any Work completed or action undertaken by the Contractor without such a determination shall be at its own risk and expense.
- (B) In the event of a conflict between the terms of this instrument and the contract exhibits, the terms of this instrument shall take precedence.
- (C) In the event of a conflict between the Contract and applicable tribal law or regulations, the tribal law or regulations shall prevail.

**SECTION THIRTY-TWO
PROTESTS, CLAIMS AND DISPUTES**

- (A) "Claim" as used in this clause, means a written demand or written assertion by the Contractor, 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 or the Work. 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) The Contractor must comply with the protest and notice procedures of Sections 1-04.5 of the Standard Specifications to assert any Claim related to or arising out of the Contract, the Work, or any change order, written or oral order from the Engineer or Owner, or a representative thereof, including any direction, instruction, interpretation or determination by the Engineer or Owner. Compliance with the procedures and protest requirements of Section 1-04.5 is a condition precedent to asserting any Claim and by not protesting as that Section provides, the Contractor waives any additional entitlement and accepts from the Engineer or Owner any written or oral order (including directions, instructions, interpretations, and determination). Section 32(C) of this Contract shall replace reference to Section 1-09.11 of the Standard Specifications, such that if the Contractor does not accept the Engineer's determination then the Contractor shall pursue the dispute and claims procedures set forth in Section 32(C) below. In spite of any protest or dispute, the Contractor shall promptly proceed with the Work as the Engineer or Owner orders. By failing to follow the procedures of Section 1-04.5 and Section 32(C) below, the contractor completely waives any Claims for protested Work.
- (C) When protests or any disputes occur during the project, the Contractor shall pursue resolution through the Engineer. The Contractor shall follow the procedures outlined in Section 1-04.5 of the Standard Specifications. If negotiations using the procedures outlined in Section 1-04.5 fail to provide satisfactory resolution of such protest or dispute, the Contractor shall provide the Engineer with written notification that it will continue to pursue the dispute within seven (7) calendar days after receipt of the Engineer's determination that the Contractor's protest or dispute is in valid or within thirty (30) days after submission of such protest or dispute to the Engineer without receiving a written response. The notice shall be titled "Notice of Continued Claim." Such Notice of Continued Claim can only be submitted if the Contractor has pursued and exhausted the means provided in Section 1-04.5. Within thirty (30) days of providing the Notice of Continued Claim, the Contractor may submit a Claim – which shall be provided to both the Owner and the Engineer. Such Claim shall include all of the information required by Section 1-09.11(2) of the Standard Specifications. The Claim must be verified and signed as required in Section 1-09.11. The Contractor agrees to waive any Claim where written notification provided in this Section is not followed or where the Engineer or Owner is not afforded reasonable access by the Contractor to complete records of actual costs and additional time incurred as required in Section 1-04.5. Full compliance by the Contractor with the provisions of this Section 32 is a contractual condition precedent to the Contractor's right to seek relief.
- (D) All Claims and any other disputes arising under or relating to this Contract or the Work, including any Claims by the Contractor after termination or completion or Claims by the Contractor' surety, and the notice and protest procedures set forth above must be followed.

(E) The Contractor's Claim will be reviewed by the Engineer and Owner. A written determination as to the validity of the Claim shall be provided to the Contractor within 45 calendar days from the date the Claim is received by both the Owner and the Engineer if the Claim amount is less than \$100,000, or within 90 calendar days from the date the Claim is received by both the Owner and the Engineer if the Claim is greater than \$100,000. If the above restraints are unreasonable due to the complexity of the Claim, then the Owner or Engineer will notify the Contractor when a written response will be provided.

(F) If the Contractor disagrees with the determination, it may invoke the dispute resolution procedures in Section 33.

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

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

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 administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this Section 33(A), the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

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

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

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

Any such arbitration shall take place before a single arbitrator if the aggregate value of the Claim and any counterclaim is less than \$2,000,000, exclusive of costs and attorney fees. The parties shall endeavor to mutually agree on the arbitrator. Unless otherwise agreed upon by the parties, the arbitrator shall be an attorney with at least fifteen years of experience in handling construction disputes and has a demonstrable understanding of the applicability of and interaction between federal law and tribal law. Such demonstrable understanding can be accomplished by admission to a tribal court bar, handling at least five (5) cases or disputes as judge or arbitrator with a Tribe as a party, significant experience representing tribal entities, negotiation of at least five (5) construction contracts or handling two (2) or more cases or disputes in which a Tribe is a party, or other similar substantive knowledge of Indian Country. 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 \$2,000,000 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 at least fifteen years of experience in handling construction disputes and has a demonstrable understanding of the applicability of and interaction between federal law and tribal law, 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 set 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, its consultants, Subcontractors and/or suppliers retained by the Contractor. In order to effectuate the purposes of this Section 33.B. the Contractor shall incorporate by reference the provisions of this Section 33B in each Subcontract.

In the event of or arbitration between the parties hereto, declaratory or otherwise relating to the Contract, and notwithstanding any other provisions herein or in the applicable arbitration rules, each party shall bear its own costs and attorneys' fees. The arbitrator does not have any authority to award prevailing party attorneys' fees or costs.

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, demands, or other disputes arising out of or related to the Work or the Contract Documents, 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 (i) compelling arbitration of a Claim, (ii) determining the arbitrator's jurisdiction, (iii)

confirming an arbitration award or (iv) collecting sums due and owing pursuant to an otherwise enforcing any award or judgment. The Owner and Contractor hereby irrevocably consents to and submits itself to the jurisdiction of any arbitration proceeding properly convened pursuant to the terms of this Contract, as well as to the jurisdiction of the Tribal Court for the limited purpose set forth herein. Any judgement entered against Contractor or its Surety by the Tribal Court confirming such arbitration award may be enforced by the Tulalip Tribes in any court have jurisdiction over Contractor or its Surety.

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. Additionally, this Limited Waiver of Sovereign Immunity expressly does not permit, nor shall be construed to permit, the Contractor, or any other person or entity, to encumber or seek satisfaction of judgment from any restricted assets (as opposed to unrestricted assets). A restricted asset is held in trust by the United States for the beneficial use of the Owner or a member of the tribe of the Owner.

SECTION THIRTY-FOUR POSSESSION UPON SUBSTANTIAL COMPLETION

Owner reserves the right to take over and utilize areas of the worksite 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 Contractor's obligations under this Contract shall remain in force and the Contractor will remain responsible for the entire project covered by this Contract until the Engineer 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 Engineer for review for conformity with the requirements of the Contract Documents, for Engineer's review and approval, which may include, without limitation:

- a. Certificate of Occupancy issued by the local building department;
- b. Inspection Certificates required and issued by the authority having jurisdiction, such as Plumbing, Piping Purification, Pressure Piping, Elevator, Boiler, Electrical, etc.;
- c. Letter of Approval from the Fire Marshal for fire suppression system;
- d. Operating and Maintenance Manuals, which shall be organized into suitable sets of manageable size. Indexed data shall be bound in individual binders, with pocket folders for folded sheet information and appropriate identification shall be marked on the front and the spine of each binder;
- e. Neatly and accurately marked sets of As-Built Drawings and other Contract Documents reflecting the actual construction of the Project;
- f. Reproducible detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems and components;
- g. An electronic copy of all Operating and Maintenance manual documentation, As-Built drawings, Warranties and Guarantees and other Contract Documents in a pdf format;
- h. Assignment to the Tulalip Tribes of Washington of all Warranties and Guarantees, including the most recent address and telephone number of any Subcontractors, Material Suppliers, or manufacturers;

- i. Final waiver and release of claims from all subcontractors that they are paid in full.
- j. A final waiver and release of claims affidavit to certify that the Contractor has paid all Subcontractors, Material Suppliers and laborers in full for all Work performed or materials furnished for the Project.

**SECTION THIRTY – SIX
NOTICES TO THE CONTRACTOR**

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

CONTRACTOR _____

OWNER Tulalip Tribes Construction _____

The Tulalip Tribes _____
6406 Marine Drive _____
Tulalip, WA 98271 _____

Contractor shall notify Owner of any Change of Address. The Owner or Engineer may also deliver notices to the Contractor via electric mail.

**SECTION THIRTY-SEVEN
T.E.R.O**

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

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

Attest:

Contractor:

Tulalip Tribes Representative:

Tulalip Tribes (BOD):

Signature

Signature

Signature

Title

Transportation Manager
Title

BOD Chairwoman
Title

Date

Date

Date

The Tulalip Tribes of Washington

The Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road Project

INTERIM WAIVER AND RELEASE OF CLAIMS

TO THE TULALIP TRIBES OF WASHINGTON (“OWNER”):

_____ (the “Releasing Party”) has furnished labor or services, or supplied materials or equipment (collectively, the “Work”) for construction on Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road Project (the “Project”), located at _____, Tulalip, WA 98271.

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

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

(the Releasing Party)

DATED: _____

By: _____

Printed Name: _____

Its: _____

[Notary Seal]

State of: _____ County of: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

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The Tulalip Tribes of Washington

The Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road Project

FINAL WAIVER AND RELEASE OF CLAIMS

TO THE TULALIP TRIBES OF WASHINGTON (“OWNER”):

Upon receipt of payment of \$ _____, whether in cash, by check or by joint check, _____ (the “Releasing Party”) has furnished labor or services, or supplied materials or equipment for construction on Pavement Rehabilitation and Safety Improvements Projects 28th Drive NW – 81st Street NE Housing Area Roads – Totem Beach Road Project (the “Project”), located at located at _____, Tulalip, WA 98271.

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

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

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

(the Releasing Party)

DATED: _____

By: _____

Printed Name: _____

Its: _____

[Notary Seal]

State of: _____ County of: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

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Buyer's Retail Sales Tax Exemption Certificate

Do not use this form for resale purchases

This certificate is for:

Single use

You need to show this certificate each time you buy an exempt item.

Blanket certificate

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

Name:

Date:

Mailing address:

City:

State:

Zip:

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

1 Nonresident vessel purchases:

Place of residence:

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

including any identification numbers _____, and expiration date _____.

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

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

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

Seller's signature: _____

2 Electric vehicles/vessels:

- a. Batteries or fuel cells for electric vehicles and services for installing, repairing, or improving electric vehicle batteries and fuel cells.
- b. Tangible personal property that will become a component of a battery or fuel cell electric vehicle infrastructure and labor and services for installing, constructing, repairing, or improving battery or fuel cell electric vehicle infrastructure, including hydrogen fueling stations.
- c. Zero emissions buses.
- d. Vessels equipped with battery-powered electric marine propulsion systems or the systems themselves with continuous power greater than 15kW.
- e. Batteries and battery packs or shoreside battery infrastructure used to exclusively power electric marine propulsion systems operating at a continuous power greater than 15kW.

3 Intrastate air transport:

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

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

- a. Motor vehicle, trailers and component parts thereof used to transport persons or property for hire in interstate or foreign commerce.
- b. Airplanes, locomotives, railroad cars or watercraft and component parts thereof used in transporting persons or property for hire.
- c. Labor and services rendered to construct, repair, clean, alter or improve for hire carrier property.
- d. Items for use connected with private or common carriers engaged in air, rail or water in interstate or foreign commerce. (Note: Items consumed in the state are subject to use tax.)
- e. Watercraft, component parts, labor and services, and/or diesel fuel used in a qualifying commercial deep sea fishing operation.

Registered vessel name:

Vessel number:

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

5 Other:

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

- a. Waste vegetable oil used to produce biodiesel fuel for personal use.
- b. Equipment rental and purchase of services for use in motion picture and video production.
- c. Objects of art or cultural value purchased by an artistic or cultural organization.
- d. Adaptive automobile equipment purchased by disabled veterans.
- e. Animal pharmaceuticals purchased by veterinarians. This exemption does not apply to pharmaceuticals for pets (describe):
- f. Computer hardware, peripherals, software and related installation, used by the aerospace industry.
- g. Labor, services and tangible personal property related to the constructing of new buildings by a manufacturer of commercial airplanes, fuselages, or wings of a commercial airplane, or by a port district, political subdivision, or municipal corporation to be leased to such a manufacturer.
- h. Computer hardware, peripherals, software and related installation, purchased by publishers and printers.
- i. City, County, Tribal, or Inter-Tribal Housing Authorities.
- j. Tangible personal property for use in a noncontiguous state delivered to the usual receiving terminal of the shipper.
 Types of goods purchased:
 Point of delivery: _____ Carrier/agent: _____
- k. Gases and chemicals used by a manufacturer or processor for hire in the production of semiconductor materials.
- l. Hog fuel used to produce electricity, steam, heat, or biofuel.
- m. Tangible personal property under the weatherization assistance program.
- n. Trail grooming services.
- o. Honey bees, honey bee feed purchased by an eligible apiarist. Apiarist ID #:
- p. Federal credit union purchases.
- q. Wax, ceramic materials, and labor used to create molds consumed during the process of creating investment castings.
- r. Sales of ferry vessels to the state or local governmental units, components thereof, and labor and service charges.
- s. Joint Municipal Utilities Services Authority.
- t. Paratransit vehicles purchased by paratransit service providers.
- u. Large/private airplanes purchased by nonresidents.
- v. Standard financial information purchased by qualifying international investment management companies and their affiliates.

Instructions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Reference: RCW 82.08.9651.

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

Reference: RCW 82.08.956.

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

Reference: RCW 82.08.998.

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

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

References: RCW 82.08.0204 and RCW 82.08.200

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

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

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

Reference RCW 82.08.0285.

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

Reference: RCW 82.08.999

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

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

Reference: RCW 82.08.215

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

Reference: RCW 82.08.207

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

Reference: RCW 82.08.0311

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

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

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

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

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

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

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

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

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

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

Special Provisions



INTRODUCTION TO THE SPECIAL PROVISIONS

(*****)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2022 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

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

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

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

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

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

SPECIAL PROVISIONS - Continued

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1 **DIVISION 1**

2
3 **GENERAL REQUIREMENTS**

4 **DESCRIPTION OF WORK (SCHEDULES A, B & C)**

5 (*****)

6 The Pavement Rehabilitation 2021 – Schedule A: 28th Drive NW project will
7 include pavement rehabilitation of the existing streets, removal and
8 replacement of existing curb and gutter, Hot Mix Asphalt (HMA) pavement,
9 replacement of existing driveways, storm sewer improvements, installation
10 of a water quality treatment device, underdrains, and Fire Hydrant resetting.

11
12 Schedule B: 81st Street NE project will include pavement rehabilitation of
13 the existing streets, partial removal and replacement of existing curb and
14 gutter, Hot Mix Asphalt (HMA) pavement, storm sewer improvements,
15 installation of a water quality treatment and infiltration device, and
16 illumination improvements.

17
18 Schedule C: Totem Beach Road will include pavement rehabilitation of the
19 existing streets, removal and replacement of existing curb and gutter,
20 removal and replacement of existing sidewalk, Hot Mix Asphalt (HMA)
21 pavement, HMA Overlay, replacement of existing driveway entrances, storm
22 sewer and bioswale improvements.

23
24 The projects are located on the Tulalip Indian Reservation.

25 **1-01 DEFINITIONS AND TERMS**

26
27 **1-01.3 Definitions**

28
29 The tenth, eleventh, and twelfth paragraphs of Section 1-01.3 are deleted.

30
31 The following new terms and definitions are inserted after the twentieth paragraph
32 of Section 1-01.3:

33
34 (*****)

35 **Dates**

36
37 ***Bid Opening Date***

38 The date on which the Contracting Agency publicly opens and reads
39 the bids.

SPECIAL PROVISIONS - Continued

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Award Date

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

Contract Execution Date

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

Notice to Proceed Date

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

Substantial Completion Date

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

Physical Completion Date

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

Completion Date

The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the Contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

Final Acceptance Date

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

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

(*****)

Award

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

SPECIAL PROVISIONS - Continued

1 **Contracting Agency**

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

5 **Engineer**

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

8 **Inspector**

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

11 **Laboratory**

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

14 **Project Engineer**

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

17
18 Section 1-01.3 is supplemented with the following:

19
20 (*****)

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

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

26
27 **Additive**

28 A supplemental unit of work or group of bid items, identified separately in
29 the Bid Proposal, which may, at the discretion of the Contracting Agency,
30 be awarded in addition to the base bid.

31
32 **Alternate**

33 One of two or more units of work or groups of bid items, identified separately
34 in the Bid Proposal, from which the Contracting Agency may make a choice
35 between different methods or material of construction for performing the
36 same work.

37
38 **Alternative Dispute Resolution**

39 A method of resolving disputes other than arbitration or litigation.

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SPECIAL PROVISIONS - Continued

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Business Day

A business day is any day from Monday through Friday, except holidays as listed in Section 1-08.5.

Construction Manager

The individual or firm responsible for providing administration, management and related services as required to coordinate the Project, coordinate the Contractors and provide other services identified in the Contract Documents.

Contract Time

The period of time established by the terms and conditions of the contract within which the work must be completed.

Indian/Native American

The term "Indian or Native American" shall mean any person who is a member of a federally recognized Indian tribe, and recognized as an Indian by the United States, pursuant to its trust responsibility to American Indians.

Liquidated Damages

The sum established in the Contract Documents as the predetermined measure of damages to be paid to the Tulalip Tribes of Washington due to the Contractor's failure to complete the Work, or portions thereof, within stipulated times.

NAOB or NAOB's

Native American Owned Business that has been certified by Tulalip TERO.

Notice of Intent to Award

The notice provided to the apparently successful Bidder stating that upon satisfactory compliance with all conditions precedent for execution of the Contract Form, within the time specified, the Tulalip Tribes of Washington intends to execute a Contract Form with the Bidder.

Notice to Proceed

A notice provided by the Tulalip Tribes of Washington to the Contractor authorizing the Contractor to proceed with the Work and establishing the date for completion of the Work.

Preference/Preferred Employee/Hiring

The term "Preferred Employee" shall mean a person entitled to a preference in employment under Ordinance No. 60, who must be hired in tier preference order before a non-Indian person, whenever an opening is available.

SPECIAL PROVISIONS - Continued

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Regulations/Ordinance

Shall mean the regulations implementing any Ordinance adopted by the Tulalip Tribal Employment Rights Commission and the Tulalip Board of Directors, which is a law within the boundaries of the reservation.

Request for Information (RFI)

Written request from the Contractor to the Engineer, through the Construction Manager, seeking an interpretation or clarification of the Contract Documents.

Reservation

Shall mean all lands and waters within the exterior boundaries of the Tulalip Indian Reservation or within the jurisdiction of the Tulalip Tribes.

Samples

Physical examples furnished by the Contractor to illustrate materials, equipment or workmanship and establish Standards by which the Work will be judged.

Surety

A person or entity providing a Bid Guaranty or a Bond to a Bidder or a Contractor, as applicable, to indemnify the Tulalip Tribes of Washington against all direct and consequential damages suffered by failure of the Bidder to enter into the Contract, or by failure of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable.

TERO

Means the "Tulalip Tribal Employment Rights Office".

Traffic

Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

Tribal Court

Shall mean the tribal court of the Tulalip Tribes of Washington.

Tribal Entity

Means all subsidiary entities of the Tulalip Tribes and is intended to be as broad and encompassing as possible to ensure the Ordinance's coverage over all employment and contract activities within the Nation's jurisdiction and the term shall be so interpreted by the Commission and the Courts.

SPECIAL PROVISIONS - Continued

1 **Tribal Preference**

2 Is the process of hiring applicants which gives tribal members a higher
3 preference in employment on tribally funded projects or tribal entities.

4

5 **Tribal Member**

6 The term “Tribal Member” and the term “Member” shall mean any person
7 who is an enrolled member of the Tulalip Tribes.

8

9 **Tribe**

10 The term “Tribe” or “Tribes” shall mean the Tulalip Tribes of Washington,
11 unless the context clearly indicates otherwise.

12

13 **Tulalip TERO Code**

14 The Tulalip “Tribal Employment Rights Office” (TERO) Code is the Tribal
15 law which establishes the methods and procedures to give preference to
16 Indians in hiring promotions, training and all other aspects of employment
17 contracting and subcontracting and specifies the methods and procedures
18 for providing preference to certified NAOB’s when contracting and
19 subcontracting for goods or services on the Reservation.

20

21 **Tulalip Tribes**

22 See Tulalip Tribes of Washington.

23

24 **Tulalip Tribes of Washington**

25 The Owner or entity for whom the Project is being constructed.

26

27 **Tulalip Tribes’ Project Manager**

28 The Tulalip Tribes’ representative who provides management and oversight
29 for the project.

30

31 **Unit Price**

32 An amount stated in the bid as the price per unit of measurement for
33 materials or services described in the Contract Documents, which cost shall
34 include overhead, profit and any other expense for the Work.

35

36 **Veteran**

37 Shall mean a person who has been honorably discharged from the active,
38 reserve, or National Guard armed forces of the United States including
39 Army, Navy, Marines, Air Force, and Coast Guard.

40

41 **Warranty**

42 Legally enforceable assurance of the quality and performance of materials
43 and equipment.

44

SPECIAL PROVISIONS - Continued

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Waters of the Tribes

"Waters of the Tribes" means all streams, lakes, ponds, wetlands, salt waters, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon:

The lands, wetlands, and tidelands within the boundaries of the Tulalip Tribes Reservation; or

All lands, wetlands or tidelands outside the exterior boundaries of the Reservation which are held in fee by the Tulalip Tribes or held in trust by the United States government for the benefit of the Tulalip Tribes or its individual members; and

All lands, wetlands, or tidelands deemed Tulalip "Indian Country" as defined in 18 U.S.C. 1151.

Work

The construction and services required by the Contract Documents, to include all labor, materials, equipment and services performed or provided by the Contractor for the Project.

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

(*****)

Delete this Section. See Instructions to Bidders.

1-02.2 Plans and Specifications

(*****)

Delete this Section and replace it with the following:

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

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

SPECIAL PROVISIONS - Continued

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.

1

2

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.

3

4

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

6

1-02.4(1) General

8

(January 19, 2022 APWA GSP Option B)

10 The first sentence of the ninth paragraph, beginning with "Any prospective Bidder desiring...", is revised to read:

11

12 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.

16

17

18 This Section is supplemented with the following:

19

20 (*****)

21 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.

27

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

30

1-02.4(2) Subsurface Information

32

33 Delete this Section and replace it with the following:

34

35 (*****)

36 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

38

SPECIAL PROVISIONS - Continued

1 inspection by the Bidders. However, the Contracting Agency makes no
2 representation or warranty, expressed or implied, that:

- 3
- 4 a. The Bidders' interpretations from the boring logs may be
5 correct;
- 6
- 7 b. Moisture conditions and indicated water tables will not vary
8 from those found at the time the borings were made;
- 9
- 10 c. The ground at the location of the borings has not been
11 physically disturbed or altered after the boring was made; and
- 12
- 13 d. Conditions below the surface of the ground are consistent
14 throughout the site with the information made available
15 hereunder, or that conditions to be encountered on the site
16 are uniform or consistent with geological conditions usually
17 encountered in the area.

18

19 The Contracting Agency makes no representations, guarantees, or
20 warranties as to the condition, materials, or proportions of the materials
21 between the specific borings, regardless of any subsurface information the
22 Contracting Agency may make available to the prospective Bidders.
23 Bidders are solely responsible for making the necessary investigations to
24 support and/or verify any conclusions or assumptions used in preparation
25 of their bids.

26

27 Any subsurface investigations and analysis were carried out for design
28 purposes only. Contractor may not rely upon or make any claim against
29 Contracting Agency, Engineer, or any of their subconsultants, with respect
30 to:

- 31
- 32 1. The completeness of such reports for Contractor's purposes,
33 including, but not limited to, any aspects of the means, methods,
34 techniques, sequences, and procedures of construction to be
35 employed by Contractor, and safety precautions and programs
36 incident thereto; or
- 37
- 38 2. Other conclusions, interpretations, opinions, representations, and
39 information contained in such reports; or
- 40
- 41 3. Any Contractor interpretation of or conclusion drawn from any
42 "technical data" or any such other data, conclusions, interpretations,
43 opinions or information.
- 44

SPECIAL PROVISIONS - Continued

1 **1-02.5 Proposal Forms**

2 (*****)

3

4 Section 1-02.5 is deleted in its entirety.

5

6 **1-02.6 Preparation of Proposal**

7

8 The first paragraph of Section 1-02.6 is revised to read:

9

10 (*****)

11 The Contracting Agency will accept only those Proposals properly
12 executed on the forms it provides.

13

14 The third paragraph of Section 1-02.6 is revised to read:

15

16 (*****)

17 In the space provided on the Bid Proposal Form, the Bidder shall confirm
18 that all Addenda have been received.

19

20 (*****)

21 The fourth paragraph of Section 1-02.6 is deleted in its entirety.

22

23 **1-02.7 Bid Deposit**

24 (*****)

25

26 Section 1-02.7 is deleted in its entirety.

27

28 **1-02.9 Delivery of Proposal**

29 (*****)

30

31 Section 1-02.9 is deleted in its entirety.

32

33 **1-02.10 Withdrawing, Revising, or Supplementing Proposal**

34 (*****)

35

36 Section 1-02.10 is deleted in its entirety.

37

38 **1-02.11 Combination and Multiple Proposals**

39 (*****)

40

41 Section 1-02.11 is deleted in its entirety.

42

SPECIAL PROVISIONS - Continued

1 **1-02.12 Public Opening of Proposals**

2 (*****)

3

4 Section 1-02.12 is deleted in its entirety.

5

6 **1-02.15 Pre-Award Information**

7 (August 14, 2013 APWA GSP)

8

9 Delete this Section and replace it with the following:

10

11 Before awarding any Contract, the Contracting Agency may require one or
12 more of these items or actions of the apparent lowest responsible bidder:

13

14 1. A complete statement of the origin, composition, and
15 manufacture of any or all materials to be used,

16

17 2. Samples of these materials for quality and fitness tests,

18

19 3. A progress schedule (in a form the Contracting Agency requires)
20 showing the order of and time required for the various phases of
21 the work,

22

23 4. A breakdown of costs assigned to any bid item,

24

25 5. Attendance at a conference with the Engineer or representatives
26 of the Engineer,

27

28 6. Obtain a Tulalip Tribes Business License to do business on the
29 Tulalip Indian Reservation,

30

31 7. Obtain, and furnish a copy of, a business license to do business,

32

33 8. Any other information or action taken that is deemed necessary
34 to ensure that the Bidder is the lowest responsible bidder.

35 **1-03 AWARD AND EXECUTION OF CONTRACT**

36

37 **1-03.1 Consideration of Bids**

38 (*****)

39

40 Section 1-03.1 is deleted in its entirety.

41

SPECIAL PROVISIONS - Continued

1 **1-03.2 Award of Contract**

2 (*****)

3

4 Section 1-03.2 is deleted in its entirety.

5

6 **1-03.3 Execution of Contract**

7 (*****)

8

9 Section 1-03.3 is deleted in its entirety.

10

11 **1-03.4 Contract Bond**

12 (*****)

13

14 Section 1-03.4 is deleted in its entirety.

15

16 **1-03.5 Failure to Execute Contract**

17 (*****)

18

19 Section 1-03.5 is deleted in its entirety.

20

21 **1-03.6 Return of Bid Deposit**

22 (*****)

23

24 Section 1-03.6 is deleted in its entirety.

25

26 **1-03.7 Judicial Review**

27 (*****)

28

29 Section 1-03.7 is deleted in its entirety.

30 **1-04 SCOPE OF THE WORK**

31

32 **1-04.2 Coordination of Contract Documents, Plans, Special Provisions,**
33 **Specifications, and Addenda**

34

35 The second paragraph of Section 1-04.2 is revised as follows:

36

37 (*****)

38 Any inconsistency in the parts of the contract shall be resolved by following
39 this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so
40 forth):

41

42 1. Addenda.

43 2. Proposal Form.

SPECIAL PROVISIONS - Continued

- 1 3. Special Provisions and APWA General Special Provisions.
- 2 4. General Provisions.
- 3 5. Contract Plans.
- 4 6. Snohomish County Engineering Design and Development Standards.
- 5 7. WSDOT Standard Specifications for Road, Bridge and Municipal
- 6 Construction.
- 7 8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

8
9 **1-04.4 Changes**

10
11 **1-04.4(1) Minor Changes**

12
13 Revise the first paragraph to read:

14
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
29 exclude added or deleted amounts included in change orders accepted by
30 both parties, increases or decreases by more than 25 percent from the
31 original Proposal quantity, and if the total extended bid price for that item at
32 time of award is equal to or greater than 10 percent of the total contract
33 price at time of award. In that case, payment for contract work may be
34 adjusted as described herein:
35

1 **1-05 CONTROL OF WORK**

2

3 **1-05.4 Conformity With and Deviations from Plans and Stakes**

4

5 (*****)

6 **Contractor Surveying - Roadway**

7 The Contracting Agency has provided primary survey control in the
8 Plans.

9

10 The Contractor shall be responsible for setting, maintaining, and
11 resetting all alignment stakes, slope stakes, and grades necessary for
12 the construction of the project including but not limited to the roadbed,
13 drainage, surfacing, paving, channelization and pavement marking,
14 illumination and signals, guardrails and barriers, signing and utilities.
15 Except for the survey control data to be furnished by the Contracting
16 Agency, calculations, surveying, and measuring required for setting and
17 maintaining the necessary lines and grades shall be the Contractor's
18 responsibility.

19

20 The Contractor shall inform the Engineer when monuments are
21 discovered that were not identified in the Plans and construction activity
22 may disturb or damage the monuments. All monuments noted on the
23 plans "DO NOT DISTURB" shall be protected throughout the length of
24 the project or be replaced at the Contractors expense.

25

26 Detailed survey records shall be maintained, including a description of
27 the work performed on each shift, the methods utilized, and the control
28 points used. The record shall be adequate to allow the survey to be
29 reproduced. A copy of each day's record shall be provided to the
30 Engineer within three working days after the end of the shift.

31

32 The meaning of words and terms used in this provision shall be as listed
33 in "Definitions of Surveying and Associated Terms" current edition,
34 published by the American Congress on Surveying and Mapping and
35 the American Society of Civil Engineers.

36

37 The survey work shall include but not be limited to the following:

38

- 39 1. Verify the primary horizontal and vertical control furnished by the
40 Contracting Agency, and expand into secondary control by
41 adding stakes and hubs as well as additional survey control
42 needed for the project. Provide descriptions of secondary control
43 to the Contracting Agency. The description shall include
44 coordinates and elevations of all secondary control points.

SPECIAL PROVISIONS - Continued

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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.
9. For all other types of construction included in this provision, (including but not limited to channelization and pavement marking, illumination and signals, guardrails and barriers, signing and utilities) provide staking and layout as necessary to

SPECIAL PROVISIONS - Continued

1 adequately locate, construct, and check the specific construction
2 activity.
3

4 10. Contractor shall determine if changes are needed to the profiles
5 or roadway sections shown in the Contract Plans in order to
6 achieve proper smoothness and drainage where matching into
7 existing features, such as a smooth transition from new pavement
8 to existing pavement. The Contractor shall submit these changes
9 to the Engineer for review and approval 10 days prior to the
10 beginning of work.
11

12 The Contractor shall provide the Contracting Agency copies of any
13 calculations and staking data when requested by the Engineer.
14

15 The Contractor shall ensure a surveying accuracy within the following
16 tolerances:
17

	<u>Vertical</u>	<u>Horizontal</u>
18 Slope stakes	±0.10 feet	±0.10 feet
19 Subgrade grade stakes set		
20 0.04 feet below grade	±0.01 feet	±0.5 feet (parallel to alignment)
21		±0.1 feet (normal to alignment)
22		
23		
24		
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 (parallel to alignment)
29		±0.1 feet (normal to alignment)
30		
31		
32		
33 Roadway paving pins for		
34 surfacing or paving	±0.01 feet	±0.2 feet (parallel to alignment)
35		±0.1 feet (normal to alignment)
36		
37		
38		
39 Utilities & Storm Sewer	±0.01 feet	±0.2 feet (parallel to alignment)
40		±0.1 feet (normal to alignment)
41		
42		
43		

SPECIAL PROVISIONS - Continued

1 The Contracting Agency may spot-check the Contractor's surveying. These
2 spot-checks will not change the requirements for normal checking by the
3 Contractor.
4

5 When staking roadway alignment and stationing, the Contractor shall
6 perform independent checks from different secondary control to ensure that
7 the points staked are within the specified survey accuracy tolerances.
8

9 The Contractor shall calculate coordinates for the alignment. The
10 Contracting Agency will verify these coordinates prior to issuing approval to
11 the Contractor for commencing with the work. The Contracting Agency will
12 require up to seven calendar days from the date the data is received.
13

14 Contract work to be performed using contractor-provided stakes shall not
15 begin until the stakes are approved by the Contracting Agency. Such
16 approval shall not relieve the Contractor of responsibility for the accuracy of
17 the stakes.
18

19 Stakes shall be marked in accordance with Standard Plan A10.10. When
20 stakes are needed that are not described in the Plans, then those stakes
21 shall be marked, at no additional cost to the Contracting Agency as ordered
22 by the Engineer.
23

24 **Payment**

25 Payment will be made for the following bid item when included in the
26 proposal:
27

28 "Roadway Surveying", lump sum.
29

30 The lump sum contract price for "Roadway Surveying" shall be full pay for
31 all labor, equipment, materials, and supervision utilized to perform the Work
32 specified, including any resurveying, checking, correction of errors,
33 replacement of missing or damaged stakes, and coordination efforts.
34

35 (April 2, 2018 WSDOT GSP, Option 4)

36 **Contractor Surveying – ADA Features**

37 **ADA Feature Staking Requirements**

38 The Contractor shall be responsible for setting, maintaining, and
39 resetting all alignment stakes, and grades necessary for the construction
40 of the ADA features. Calculations, surveying, and measuring required
41 for setting and maintaining the necessary lines and grades shall be the
42 Contractor's responsibility. The Contractor shall build the ADA features
43 within the specifications in the Standard Plans and contract documents.
44

SPECIAL PROVISIONS - Continued

ADA Feature As-Built Measurements

The Contractor shall be responsible for providing electronic As-Built records of all ADA feature improvements completed in the Contract.

The survey work shall include but not be limited to completing the measurements, recording the required measurements and completing other data fill-ins found on the ADA Measurement Forms, and transmitting the electronic Forms to the Engineer. The ADA Measurement Forms are found at the following website location:

<http://www.wsdot.wa.gov/Design/ADAGuidance.htm>

In the instance where an ADA Feature does not meet accessibility requirements, all work to replace non-conforming work and then to measure, record the as-built measurements, and transmit the electronic Forms to the Engineer shall be completed at no additional cost to the Contracting Agency, as ordered by the Engineer.

Payment

Payment will be made for the following bid item that is included in the Proposal:

"ADA Features Surveying", lump sum.

The unit Contract price per lump sum for "ADA Features Surveying" shall be full pay for all the Work as specified.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a

SPECIAL PROVISIONS - Continued

1 delay in its remedy could be potentially unsafe, or might cause serious risk
2 of loss or damage to the public.

3 Direct or indirect costs incurred by the Contracting Agency attributable to
4 correcting and remedying defective or unauthorized work, or work the
5 Contractor failed or refused to perform, shall be paid by the Contractor.
6 Payment will be deducted by the Engineer from monies due, or to become
7 due, the Contractor. Such direct and indirect costs shall include in particular,
8 but without limitation, compensation for additional professional services
9 required, and costs for repair and replacement of work of others destroyed
10 or damaged by correction, removal, or replacement of the Contractor's
11 unauthorized work.

12 No adjustment in contract time or compensation will be allowed because of
13 the delay in the performance of the work attributable to the exercise of the
14 Contracting Agency's rights provided by this Section.

15 The rights exercised under the provisions of this section shall not diminish
16 the Contracting Agency's right to pursue any other avenue for additional
17 remedy or damages with respect to the Contractor's failure to perform the
18 work as required.

19

20 **1-05.11 Final Inspection**

21 **1-05.11 Final Inspections and Operational Testing**
22 (October 1, 2005 APWA GSP)

23 **1-05.11(1) Substantial Completion Date**

24 When the Contractor considers the work to be substantially complete, the
25 Contractor shall so notify the Engineer and request the Engineer establish
26 the Substantial Completion Date. The Contractor's request shall list the
27 specific items of work that remain to be completed in order to reach physical
28 completion. The Engineer will schedule an inspection of the work with the
29 Contractor to determine the status of completion. The Engineer may also
30 establish the Substantial Completion Date unilaterally.

31 If, after this inspection, the Engineer concurs with the Contractor that the
32 work is substantially complete and ready for its intended use, the Engineer,
33 by written notice to the Contractor, will set the Substantial Completion Date.
34 If, after this inspection the Engineer does not consider the work substantially
35 complete and ready for its intended use, the Engineer will, by written notice,
36 so notify the Contractor giving the reasons therefor.

SPECIAL PROVISIONS - Continued

1 Upon receipt of written notice concurring in or denying substantial
2 completion, whichever is applicable, the Contractor shall pursue vigorously,
3 diligently and without unauthorized interruption, the work necessary to
4 reach Substantial and Physical Completion. The Contractor shall provide
5 the Engineer with a revised schedule indicating when the Contractor
6 expects to reach substantial and physical completion of the work.

7 The above process shall be repeated until the Engineer establishes the
8 Substantial Completion Date and the Contractor considers the work
9 physically complete and ready for final inspection.

10 **1-05.11(2) Final Inspection and Physical Completion Date**

11 When the Contractor considers the work physically complete and ready for
12 final inspection, the Contractor by written notice, shall request the Engineer
13 to schedule a final inspection. The Engineer will set a date for final
14 inspection. The Engineer and the Contractor will then make a final
15 inspection and the Engineer will notify the Contractor in writing of all
16 particulars in which the final inspection reveals the work incomplete or
17 unacceptable. The Contractor shall immediately take such corrective
18 measures as are necessary to remedy the listed deficiencies. Corrective
19 work shall be pursued vigorously, diligently, and without interruption until
20 physical completion of the listed deficiencies. This process will continue until
21 the Engineer is satisfied the listed deficiencies have been corrected.

22 If action to correct the listed deficiencies is not initiated within 7 days after
23 receipt of the written notice listing the deficiencies, the Engineer may, upon
24 written notice to the Contractor, take whatever steps are necessary to
25 correct those deficiencies pursuant to Section 1-05.7.

26 The Contractor will not be allowed an extension of contract time because of
27 a delay in the performance of the work attributable to the exercise of the
28 Engineer's right hereunder.

29 Upon correction of all deficiencies, the Engineer will notify the Contractor
30 and the Contracting Agency, in writing, of the date upon which the work was
31 considered physically complete. That date shall constitute the Physical
32 Completion Date of the contract, but shall not imply acceptance of the work
33 or that all the obligations of the Contractor under the contract have been
34 fulfilled.

35 **1-05.11(3) Operational Testing**

36 It is the intent of the Contracting Agency to have at the Physical Completion
37 Date a complete and operable system. Therefore when the work involves

SPECIAL PROVISIONS - Continued

1 the installation of machinery or other mechanical equipment; street lighting,
2 electrical distribution or signal systems; irrigation systems; buildings; or
3 other similar work it may be desirable for the Engineer to have the
4 Contractor operate and test the work for a period of time after final
5 inspection but prior to the physical completion date. Whenever items of work
6 are listed in the Contract Provisions for operational testing they shall be fully
7 tested under operating conditions for the time period specified to ensure
8 their acceptability prior to the Physical Completion Date. During and
9 following the test period, the Contractor shall correct any items of
10 workmanship, materials, or equipment which prove faulty, or that are not in
11 first class operating condition. Equipment, electrical controls, meters, or
12 other devices and equipment to be tested during this period shall be tested
13 under the observation of the Engineer, so that the Engineer may determine
14 their suitability for the purpose for which they were installed. The Physical
15 Completion Date cannot be established until testing and corrections have
16 been completed to the satisfaction of the Engineer.

17 The costs for power, gas, labor, material, supplies, and everything else
18 needed to successfully complete operational testing, shall be included in
19 the unit contract prices related to the system being tested, unless
20 specifically set forth otherwise in the proposal.

21 Operational and test periods, when required by the Engineer, shall not affect
22 a manufacturer's guaranties or warranties furnished under the terms of the
23 contract.

24

25 **1-05.12 Final Acceptance**

26

27 Add the following new section:

28

29 **1-05.12(1) One-Year Guarantee Period**
30 (March 8, 2013 APWA GSP)

New Section

31

32 The Contractor shall return to the project and repair or replace all defects in
33 workmanship and material discovered within one year after Final
34 Acceptance of the Work. The Contractor shall start work to remedy any
35 such defects within 7 calendar days of receiving Contracting Agency's
36 written notice of a defect, and shall complete such work within the time
37 stated in the Contracting Agency's notice. In case of an emergency, where
38 damage may result from delay or where loss of services may result, such
39 corrections may be made by the Contracting Agency's own forces or
40 another contractor, in which case the cost of corrections shall be paid by the
41 Contractor. In the event the Contractor does not accomplish corrections

SPECIAL PROVISIONS - Continued

1 within the time specified, the work will be otherwise accomplished and the
2 cost of same shall be paid by the Contractor.

3
4 When corrections of defects are made, the Contractor shall then be
5 responsible for correcting all defects in workmanship and materials in the
6 corrected work for one year after acceptance of the corrections by
7 Contracting Agency.

8
9 This guarantee is supplemental to and does not limit or affect the
10 requirements that the Contractor's work comply with the requirements of the
11 Contract or any other legal rights or remedies of the Contracting Agency.

12

13 **1-05.13 Superintendents, Labor, and Equipment of Contractor**
14 (August 14, 2013 APWA GSP)

15

16 Delete the sixth and seventh paragraph of this Section.

17

18 Add the following new section:

19

20 **1-05.16 Water and Power** **New Section**
21 (October 1, 2005 APWA GSP)

22

23 The Contractor shall make necessary arrangements, and shall bear the
24 costs for power and water necessary for the performance of the work,
25 unless the Contract includes power and water as a pay item.

26

27 (*****)

28 **1-05.16(1) Dechlorination**

29

30 The Contractor is responsible for proper disposal of test and flush water.
31 Chlorinated water shall not be flushed, drained, or directed into the storm
32 drains or ditch systems.

33

34 Add the following new section:

35

36 **1-05.18 Record Drawings** **New Section**
37 (March 8, 2013 APWA GSP)

38

39 The Contractor shall maintain one set of full size plans for Record Drawings,
40 updated with clear and accurate red-lined field revisions on a daily basis,
41 and within 2 business days after receipt of information that a change in Work
42 has occurred. The Contractor shall not conceal any work until the required
43 information is recorded.

44

SPECIAL PROVISIONS - Continued

1 This Record Drawing set shall be used for this purpose alone, shall be kept
2 separate from other Plan sheets, and shall be clearly marked as Record
3 Drawings. These Record Drawings shall be kept on site at the Contractor's
4 field office, and shall be available for review by the Contracting Agency at
5 all times. The Contractor shall bring the Record Drawings to each progress
6 meeting for review.

7
8 The preparation and upkeep of the Record Drawings is to be the assigned
9 responsibility of a single, experienced, and qualified individual. The quality
10 of the Record Drawings, in terms of accuracy, clarity, and completeness, is
11 to be adequate to allow the Contracting Agency to modify the computer-
12 aided drafting (CAD) Contract Drawings to produce a complete set of
13 Record Drawings for the Contracting Agency without further investigative
14 effort by the Contracting Agency.

15
16 The Record Drawing markups shall document all changes in the Work, both
17 concealed and visible. Items that must be shown on the markups include
18 but are not limited to:

- 19
- 20 • Actual dimensions, arrangement, and materials used when different
21 than shown in the Plans.
 - 22
 - 23 • Changes made by Change Order or Field Order.
 - 24
 - 25 • Changes made by the Contractor.
 - 26
 - 27 • Accurate locations of storm sewer, sanitary sewer, water mains and
28 other water appurtenances, structures, conduits, light standards,
29 vaults, width of roadways, sidewalks, landscaping areas, building
30 footprints, channelization and pavement markings, etc. Include pipe
31 invert elevations, top of castings (manholes, inlets, etc.).
 - 32

33 If the Contract calls for the Contracting Agency to do all surveying and
34 staking, the Contracting Agency will provide the elevations at the tolerances
35 the Contracting Agency requires for the Record Drawings.

36
37 When the Contract calls for the Contractor to do the surveying/staking, the
38 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

SPECIAL PROVISIONS - Continued

	Vertical	Horizontal
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:

- Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:
 - Additions - Red
 - Deletions - Green
 - Comments - Blue
 - Dimensions - Graphite
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.
- Date all entries.
- Clearly identify all items in the entry with notes similar to those in the Contract Drawings (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above. The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

Payment will be made for the following bid item:

Record Drawings (Minimum Bid \$ ***1,000***)	Lump Sum
---	----------

SPECIAL PROVISIONS - Continued

1
2 Payment for this item will be made on a prorated monthly basis for work
3 completed in accordance with this section up to 75% of the lump sum bid.
4 The final 25% of the lump sum item will be paid upon submittal and approval
5 of the completed Record Drawings set prepared in conformance with these
6 Special Provisions.
7
8 A minimum bid amount has been entered in the Bid Proposal for this item.
9 The Contractor must bid at least that amount.

10 **1-06 CONTROL OF MATERIAL**

11
12 Add the following new section:

13
14 (*****)

15 **1-06.7 Shop Drawings and Submittals** **New Section**

16
17 **1-06.7(1) General**

18
19 Shop drawing and submittal review by the Owner or Owner's representative
20 will be limited to general design requirements only, and shall not relieve the
21 Contractor from responsibility for errors or omissions or responsibility for
22 consequences due to deviations from the Contract Documents. No changes
23 may be made in any submittal after it has been reviewed except with written
24 notice and approval from the Owner.

25
26 The Contractor shall review each submittal and provide approval in writing
27 or by stamping, with a statement indicating that he has reviewed and
28 approved the submittal, verified dimensional information, materials, catalog
29 numbers, and similar data, confirmed that specified criteria has been met,
30 and acknowledges that the product, method, or information will function as
31 intended.

32
33 Shop drawing and submittal data for each item shall contain sufficient
34 information on each item to determine if it is in compliance with the contract
35 requirements.

36
37 The Owner will provide review services for a first and second review of each
38 submittal item free from charge to the Contractor. The cost to provide
39 additional reviews shall be charged to the Contractor by withholding the
40 appropriate amounts from each progress payment.

41
42 Shop drawing and submittal items that have been installed in the work but
43 have not been approved through the review process shall be removed, and

SPECIAL PROVISIONS - Continued

1 an approved product shall be furnished, all at the Contractor's expense.
2 Under no circumstances shall payment be made to the Contractor for
3 materials not approved by the submittal process.

4

5 **1-06.7(2) Required Information**

6

7 Each submittal shall be submitted within 10 working days after contract
8 execution to the Engineer.

9 Shop drawings and submittals shall be submitted electronically and shall
10 contain the following information for all items:

11 1. Project Name.

12 2. Contractor.

13 3. Engineer.

14 4. Owner.

15 5. Applicable specification and drawing reference.

16 6. A stamp showing that the Contractor has checked the material or
17 equipment for conformance with the contract requirements,
18 coordination with other work on the job, and dimensional suitability.

19 7. A blank space for the Engineer to place a 3-inch by 4-inch review
20 stamp.

21 8. Dimensions and weights.

22 9. Catalog information.

23 10. Manufacturer's specifications.

24 11. Special handling instructions.

25 12. Maintenance requirements.

26 13. Wiring and control diagrams.

27 14. List of contract exceptions.

28 15. Other information as required by the Engineer.

29 16. Installation and Operating Instructions.

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1-06.7(3) Review Schedule

Shop drawings and submittals will be reviewed as promptly as possible and transmitted to the Contractor no later than 15 working days after receipt by the Engineer. The Contractor shall revise and resubmit previously rejected submittals as necessary to obtain acceptance. Delays caused by the need for resubmittal shall not be a basis for an extension of contract time or delay damages. Two sets of shop drawings or one electronic response will be returned to the Contractor after review.

1-06.7(4) Substitutions

Any product or construction method that does not meet these specifications will be considered a substitution. Substitutions must be approved prior to installation or use on this project, as specified below.

1-06.7(4)A After Contract Execution

Within 10 working days after the date of the Notice of Award of Contract, Owner will consider formal requests from Contractor for substitution of product in place of those specified. Contractor shall submit two copies of request for substitution. Data shall include the necessary change in construction methods, including a detailed description of proposed method and related drawings illustrating methods. An itemized comparison of proposed substitution with product or method shall be provided.

In making a request for substitution, Contractor represents that he has personally investigated the proposed product or method and has determined that it is equal or superior to, in all respects, the product specified. All substitutions shall be reviewed and approved by the Tribe prior to incorporation into the project. Upon review and acceptance by the Owner, Contractor shall coordinate installation of accepted substitutions into the work, making changes that may be required for work to be completed. Contractor waives all claims for additional costs related to substitutions that consequently become apparent.

1-06.7(4)B Equivalent Materials

Mention of equipment or materials by brand name and/or model number is occasionally made in order to establish a basis of quality for certain items of material, equipment, or processes. Such mention is intended to include

SPECIAL PROVISIONS - Continued

1 products of other manufacturers that will meet the design standards of the
2 product mentioned.

3
4 If the Contractor desires to use products other than those specified under
5 this “or approved equivalent” provision, he shall obtain the approval of the
6 Owner and the Engineer before entering an order therefore. All substitutions
7 or products to be used under the “or approved equivalent” provision shall
8 be reviewed and approved by the Tribe prior to incorporation into the
9 project.

10
11 Wherever mention is made of a specific manufacturer, such mentions shall
12 be treated as if the phrase “or approved equivalent” appears thereafter
13 whether or not in fact it does. The terms “or equal” and/or “or approved
14 equivalent” shall be considered synonymous.

15
16 Cost of all work under this section shall be included in the lump sum contract
17 bid item of “Mobilization”.

18 **1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

19 20 **1-07.1 Laws to be Observed**

21
22 The first three paragraphs of Section 1-07.1 are revised to read:

23
24 (*****)
25 The Contractor shall always comply with all Federal, State, Tribal, or local
26 laws, ordinances, and regulations that affect Work under the Contract. The
27 Contractor shall indemnify, defend, and save harmless The Tulalip Tribes
28 (including its Board of Directors and all other officers and employees) and
29 the State (including the Governor, Commission, Secretary, and any agents,
30 officers, and employees) against any claims that may arise because the
31 Contractor (or any employee of the Contractor or Subcontractor or material
32 person) violated a legal requirement.

33
34 The Contractor shall be responsible to immediately report to the Engineer
35 any deviation from the contract provisions pertaining to environmental
36 compliance, including but not limited to spills, unauthorized fill in waters of
37 the Tribes including wetlands, unauthorized fill in waters of the State
38 including wetlands, water quality standards, noise, air quality, etc.

39
40 The Contractor shall be responsible for the safety of all workers and shall
41 comply with all appropriate state safety and health standards, codes, rules,
42 and regulations, including, but not limited to, those promulgated under the
43 Washington Industry Safety and Health Act RCW 49.17 (WISHA) and as set

SPECIAL PROVISIONS - Continued

1 forth in Title 296 WAC (Department of Labor and Industries). In particular,
2 the Contractor's attention is drawn to the requirements of WAC 296.800
3 which requires employers to provide a safe workplace. More specifically,
4 WAC 296.800.11025 prohibits alcohol and narcotics from the workplace.
5 The Contractor shall likewise be obligated to comply with all federal safety
6 and health standards, codes, rules, and regulations that may be applicable
7 to the Contract Work.

8

9 Section 1-07.1 is supplemented with the following:

10

11 (*****)

12 **Indian Preference and Tribal Ordinances**

13 This project is located on the Tulalip Indian Reservation. It is the
14 Contractor's responsibility to comply with all applicable Tribal laws, codes,
15 ordinances, and regulations. The Contractor shall comply with them in
16 accordance with Section 1-07.1.

17

18 Tribal Employment Rights Ordinances (TEROs), may utilize a variety of
19 tools to encourage Indian employment. These tools may include, but are
20 not limited to, TERO fees, Indian hiring preference, Indian-owned business
21 subcontracting preference and/or an Indian training requirement. Other
22 requirements may be a Tribal business license, a required compliance plan,
23 and/or employee registration requirements. Every tribe is different and each
24 may be willing to work cooperatively with the Contractor to develop a
25 strategy that works for both parties. For specific details, the Contractor
26 should contact The Tulalip Tribes' TERO Department at 6406 Marine Drive,
27 Tulalip, Washington 98271, Office (360) 716-4747 or
28 Facsimile (360) 716-0249. <http://www.tulaliptero.com/>.

29

30 The Tulalip Tribes of Washington has the sovereign authority over the lands
31 of the Tulalip Indian Reservation and has the authority to enact and enforce
32 its laws, ordinances, codes, and regulations. The Contractor shall comply
33 and cooperate with the Tribes and its representatives. The costs related to
34 such compliance shall be borne solely by the Contractor, who is advised to
35 contact the tribal representative listed above, prior to submitting a bid, to
36 assess the impact of compliance on the project.

37

38 Although Indian preference can be compelled and mandated by the
39 Contracting Agency, there is no limitation whereby voluntary Contractor or
40 Subcontractor initiated preferences are given, if otherwise lawful.
41 41 CFR 60-1.5(a)7 provides as follows:

42

43 Work on or near Indian reservations: It shall not be a violation of the equal
44 opportunity clause for a construction or non-construction Contractor to

SPECIAL PROVISIONS - Continued

1 extend a publicly announced preference in employment to Indians living on
2 or near an Indian reservation in connection with employment opportunities
3 on or near an Indian reservation. The use of the word near would include all
4 that area where a person seeking employment could reasonably be
5 expected to commute to and from in the course of a work day. Contractors
6 or Subcontractors extending such a preference shall not, however,
7 discriminate among Indians on the basis of religion, sex, or tribal affiliation,
8 and the use of such a preference shall not excuse a Contractor from
9 complying with the other requirements as contained in the August 25, 1981
10 Department of Labor, Office of Federal Contract Compliance Programs,
11 Government Contractors Affirmative Actions Requirements.

12
13 **TERO Participation shall be evaluated as follows:**

14 Counting Tulalip Tribal Member Native American Owned Business or Native
15 American Owned Business Participation.

16
17 When a Tulalip Tribal Member NAOB or NAOB participates in a contract,
18 only the value of the work actually performed by the Tulalip Tribal Member
19 NAOB or NAOB will be counted towards the Tulalip Tribal Member NAOB
20 or NAOB subcontracting requirement.

- 21
22 1. Count the entire amount of the portion of the contract that is performed
23 by the Tulalip Tribal-owned or Indian-owned enterprise or organization's
24 own forces. Include the cost of supplies and materials obtained by the
25 Tulalip Tribal Member NAOB or NAOB for the work of the contract,
26 including supplies purchased or equipment leased by the Tulalip Tribal
27 Member NAOB or NAOB (except supplies and equipment the lower-
28 tiered Tulalip Tribal Member NAOB or NAOB purchases or leases from
29 the Prime Contractor or its affiliates, unless the Prime Contractor is also
30 a Tulalip Tribal Member NAOB or NAOB). Work performed by a Tulalip
31 Tribal Member NAOB or NAOB, utilizing resources of the Prime
32 Contractor or its affiliates will not be counted toward Tulalip Tribal-owned
33 or Indian-owned enterprise or organization goals. In very rare situations,
34 a Tulalip Tribal Member NAOB or NAOB may utilize equipment and or
35 personnel from a non-Tulalip Tribal Member NAOB or NAOB other than
36 the Prime Contractor or its affiliates. Should this situation arise, the
37 arrangement must be short-term and must have prior written approval
38 from the Contracting Agency. The arrangement must not erode a Tulalip
39 Tribal Member NAOB or NAOB's ability to perform a Commercially
40 Useful Function (see discussion of CUF, below).
- 41
42 2. Count the entire amount of fees or commissions charged by a Tulalip
43 Tribal Member NAOB or NAOB firm for providing a bona fide service,

SPECIAL PROVISIONS - Continued

1 such as professional, technical, consultant, or managerial services, or
2 for providing bonds or insurance.
3

- 4 3. When a Tulalip Tribal Member NAOB or NAOB subcontracts part of the
5 work of its contract to another firm, the value of the subcontracted work
6 may be counted toward the Tulalip Tribal Member NAOB or NAOB
7 requirement only if the Tulalip Tribal Member NAOB or NAOB's lower-
8 tier subcontractor is also a Tulalip Tribal Member NAOB or NAOB. Work
9 that a Tulalip Tribal Member NAOB or NAOB subcontracts to a non-
10 Tulalip Tribal Member NAOB or NAOB does not count toward the Tulalip
11 Tribal Member NAOB or NAOB contracting requirement.
12
- 13 4. When a non-Tulalip Tribal Member NAOB or NAOB subcontractor
14 further subcontracts to a lower-tier subcontractor or supplier who is a
15 certified Tulalip Tribal-owned or Indian-owned enterprise or
16 organization, then that portion of the work further subcontracted may be
17 counted toward the Tulalip Tribal Member NAOB or NAOB requirement,
18 so long as it is a distinct clearly defined portion of the work of the
19 subcontract that the Tulalip Tribal Member NAOB or NAOB is performing
20 in a commercially useful function with its own forces.
21
- 22 5. Continue to count the work subcontracted to a decertified Tulalip Tribal-
23 owned or Indian-owned enterprise or organization after decertification,
24 provided the prime contractor had a subcontract in force before the
25 decertification and the prime contractor's actions did not influence the
26 Tulalip Tribal-owned or Indian-owned enterprise's or organization's
27 decertification.
28

29 **Commercially Useful Function**

30 Payments to a Tulalip Tribal Member NAOB or NAOB will count toward
31 Tulalip Tribal Member NAOB or NAOB requirements only if the Tulalip Tribal
32 Member NAOB or NAOB is performing a commercially useful function on
33 the contract.
34

- 35 1. A Tulalip Tribal Member NAOB or NAOB performs a commercially useful
36 function when it is responsible for execution of the work of the contract
37 and is carrying out its responsibilities by actually performing, managing,
38 and supervising the work involved. To perform a commercially useful
39 function, the Tulalip Tribal Member NAOB or NAOB must also be
40 responsible, with respect to materials and supplies used on the contract,
41 for negotiating price, determining quality and quantity, ordering the
42 material, installing (if applicable), and paying for the material itself. Two-
43 party checks are not allowed.
44

SPECIAL PROVISIONS - Continued

- 1 2. A Tulalip Tribal Member NAOB or NAOB does not perform a
2 commercially useful function if its role is limited to that of an extra
3 participant in a transaction, contract, or project through which funds are
4 passed in order to obtain the appearance of Tulalip Tribal Member
5 NAOB or NAOB participation.
6

7 **Trucking**

8 Use the following factors in determining whether a Tulalip Tribal Member
9 NAOB or NAOB trucking company is performing a commercially useful
10 function:

- 11
- 12 1. The Tulalip Tribal Member NAOB or NAOB must be responsible for the
13 management and supervision of the entire trucking operation for which
14 it is listed on a particular contract.
15
- 16 2. The Tulalip Tribal Member NAOB or NAOB must itself own and, with its
17 own workforce, operate at least one fully licensed, insured, and
18 operational truck used on the contract.
19
- 20 3. The Tulalip Tribal Member NAOB or NAOB receives credit only for the
21 total value of the transportation services it provides on the contract using
22 trucks it owns or leases, licenses, insures, and operates with drivers it
23 employs.
24
- 25 4. For purposes of this paragraph, a lease must indicate that the Tulalip
26 Tribal-owned or Indian-owned enterprise or organization has exclusive
27 use of and control over the truck. This does not preclude the leased truck
28 from working for others during the term of the lease with the consent of
29 the Tulalip Tribal Member NAOB or NAOB, so long as the lease gives
30 the Tulalip Tribal Member NAOB or NAOB absolute priority for use of the
31 leased truck. Leased trucks must display the name and identification
32 number of the Tulalip Tribal Member NAOB or NAOB.
33
- 34 5. The Tulalip Tribal Member NAOB or NAOB may lease trucks from
35 another Tulalip Tribal Member NAOB or NAOB and may enter an
36 agreement with an owner-operator who is certified as a Tulalip Tribal
37 Member NAOB or NAOB. The Tulalip Tribal Member NAOB or NAOB
38 who leases trucks from another Tulalip Tribal Member NAOB or NAOB
39 or employs a Tulalip Tribal Member NAOB or NAOB owner-operator
40 receives credit for the total value of the transportation services the
41 lessee Tulalip Tribal Member NAOB or NAOB provides on the contract.
42
- 43 6. The Tulalip Tribal Member NAOB or NAOB may also lease trucks from
44 a non-Tulalip Tribal Member NAOB or NAOB and may enter an

SPECIAL PROVISIONS - Continued

1 agreement with an owner-operator who is a non-Tulalip Tribal Member
2 NAOB or NAOB. The Tulalip Tribal Member NAOB or NAOB who leases
3 trucks from a non-Tulalip Tribal Member NAOB or NAOB or employs a
4 non-Tulalip Tribal Member NAOB or NAOB owner-operator is entitled to
5 credit only for the fee or commission it receives as a result of the lease
6 arrangement. The Tulalip Tribal Member NAOB or NAOB does not
7 receive credit for the total value of the transportation services provided
8 by the lessee, since these services are not provided by a Tulalip Tribal
9 Member NAOB or NAOB.

- 10
11 7. In any lease or owner-operator situation, as described in paragraphs 5
12 and 6 above, the following rules shall apply:
- 13 a. A written lease/rental agreement on all trucks leased or rented,
14 showing the true ownership and the terms of the rental must be
15 submitted and approved by the Contracting Agency prior to the
16 beginning of the work. The agreement must show the lessor's
17 name, trucks to be leased, and agreed-upon amount or method
18 of payment (hour, ton, or per load). All lease agreements shall be
19 for a long-term relationship, rather than for the individual project.
20 Does not apply to owner-operator arrangements.
 - 21 b. Only the vehicle (not the operator) is leased or rented. Does not
22 apply to owner-operator arrangements.
- 23
24 8. In order for Tulalip Tribal Member NAOB or NAOB project requirements
25 to be credited, Tulalip Tribal Member NAOB or NAOB trucking firms must
26 be covered by a subcontract or a written agreement approved by the
27 Contracting Agency prior to performing its portion of the work.

28
29 Expenditures Paid to Other Tulalip Tribal Member Native American-Owned
30 Business or Native American-Owned Business.

31
32 Expenditures paid to other Tulalip Tribal Member Native American-Owned
33 Business or Native American-Owned Business for materials or supplies
34 may be counted toward Tulalip Tribal Member NAOB or NAOB
35 requirements as provided in the following:

36
37 **Manufacturer**

38 1. Counting

39 If the materials or supplies are obtained from a Tulalip Tribal Member
40 NAOB or NAOB manufacturer, count 100 percent of the cost of the
41 materials or supplies toward Tulalip Tribal Member NAOB or NAOB
42 requirements.

SPECIAL PROVISIONS - Continued

- 1 2. Definition
2 To be a manufacturer, the firm operates or maintains a factory or
3 establishment that produces, on the premises, the materials, supplies,
4 articles, or equipment required under the contract and of the general
5 character described by the specifications.
6
7 3. In order to receive credit as a Tulalip Tribal Member NAOB or NAOB
8 manufacturer, the firm must have received an “on-site” review and been
9 approved by TERO to operate as a Tulalip Tribal Member NAOB or
10 NAOB manufacturing firm prior to bid opening. Use of a Tulalip Tribal
11 Member NAOB or NAOB manufacturer that has not received an on-site
12 review and approval by TERO prior to bid opening will result in the bid
13 being declared non-responsive, unless the contribution of the
14 manufacturer was not necessary to meet the project requirement. To
15 schedule a review, the manufacturing firm must submit a written request
16 to TERO and may not receive credit towards Tulalip Tribal Member
17 NAOB or NAOB participation until the completion of the review. Once a
18 firm’s manufacturing process has been approved in writing, it is not
19 necessary to resubmit the firm for approval unless the manufacturing
20 process has substantially changed. Information on approved
21 manufacturers (per contract) may be obtained from TERO.

22
23 **Regular Dealer**

- 24 1. Counting
25 If the materials or supplies are purchased from a Tulalip Tribal Member
26 NAOB or NAOB regular dealer, 10 percent of the cost of the materials
27 or supplies will count toward Tulalip Tribal Member NAOB or NAOB
28 requirements.
29
30 2. Definition
31 a) To be a regular dealer, the firm must own, operate, or maintain a store,
32 warehouse, or other establishment in which the materials, supplies,
33 articles or equipment of the general character described by the
34 specifications and required under the contract are bought, kept in
35 stock, and regularly sold or leased to the public in the usual course of
36 business. It must also be an established, regular business that
37 engages, as its principal business and under its own name, in the
38 purchase and sale or lease of the products in question.
39
40 b) A person may be a regular dealer in such bulk items as petroleum
41 products, steel, cement, gravel, stone, or asphalt without owning,
42 operating, or maintaining a place of business, as provided elsewhere
43 in this specification, if the person both owns and operates distribution
44 equipment for the products. Any supplementing of regular dealers’

SPECIAL PROVISIONS - Continued

1 own distribution equipment shall be by a long-term lease agreement
2 and not on an ad hoc or contract-by-contract basis.
3

4 c) Packagers, brokers, manufacturers' representatives, or other persons
5 who arrange or expedite transactions are not regular dealers.
6

7 Regular dealer status is granted on a contract-by-contract basis. To obtain
8 regular dealer status, a formal written request must be made by the
9 interested supplier (potential regular dealer) to TERO. TERO must be in
10 receipt of this request at least 7 calendar days prior to bid opening. Included
11 in the request shall be a full description of the project, type of business
12 operated by the Tulalip Tribal Member NAOB or NAOB, and the manner the
13 Tulalip Tribal Member NAOB or NAOB will operate as a regular dealer on
14 the specific contract. Once the request is reviewed by TERO, the Tulalip
15 Tribal Member NAOB or NAOB supplier requesting it will be notified in
16 writing whether regular dealer status was approved. Tulalip Tribal Member
17 Native American Owned Business or Native American Owned Business that
18 are approved as regular dealers for a contract (whenever possible) will be
19 listed on the Tulalip Tribes TERO's Native American Owned Business
20 (NAOB) registry Internet Homepage at: [www.tulaliptribes.com/Home/
21 Contractors/NAOBRegistryReport.aspx](http://www.tulaliptribes.com/Home/Contractors/NAOBRegistryReport.aspx) prior to the time of bid opening. In
22 addition, bidders may request confirmation of the Tulalip Tribal Member
23 NAOB or NAOB supplier's approval to operate as a regular dealer on a
24 specific contract by writing the TERO Department, 6406 Marine Drive,
25 Tulalip, WA 98271 or by phone at (360) 716-4747. Use of a supplier that
26 has not received approval as a regular dealer prior to bid opening will result
27 in the bid being declared nonresponsive, unless the contribution of the
28 regular dealer was not necessary to meet the project requirement.
29

Materials or Supplies Purchased from a Tulalip Tribal Member NAOB 30 or NAOB

31 With respect to materials or supplies purchased from a Tulalip Tribal
32 Member NAOB or NAOB who is neither a manufacturer nor a regular dealer,
33 the entire amount of fees or commissions charged for assistance in the
34 procurement of the materials and supplies, or fees or transportation charges
35 for the delivery of materials or supplies required on a job site may be
36 counted toward the goal. No part of the cost of the materials and supplies
37 themselves may be applied toward Tulalip Tribal Member NAOB or NAOB
38 requirements.
39

Eligibility

40
41 To be eligible for award of the contract, the bidder must properly complete
42 and submit the List of Tulalip Tribal Member NAOB Subcontractor(s) and or
43 Supplier(s) and the List of NAOB Subcontractor(s) and or Supplier(s) which
44 have been made a part of the bidder's Bid Proposal Form. The above
45

SPECIAL PROVISIONS - Continued

1 named lists contained in Section IV of the Bid Proposal Form will be used
2 by the Contracting Agency in determining whether the bidder's bid proposal
3 satisfies the Tulalip Tribal Member NAOB and NAOB requirements.
4

5 For each Tulalip Tribal Member NAOB and NAOB described in the Bid
6 Proposal Form Section IV – List of Lower-Tiered Subcontractor(s) and or
7 Supplier(s), the bidder shall state the project role and work item in which
8 that Tulalip Tribal Member NAOB or NAOB will participate. A general
9 description of the work to be performed by the Tulalip Tribal Member NAOB
10 or NAOB shall be included. If a Tulalip Tribal Member NAOB or NAOB will
11 perform a partial item of work, the bidder shall also include a dollar amount
12 for each partial item of work. The bidder shall also include a dollar amount
13 for each Tulalip Tribal Member NAOB or NAOB listed in Section IV that will
14 be applied towards meeting or exceeding the assigned Tulalip Tribal
15 Member NAOB and NAOB contract requirements.
16

17 In the event of arithmetic errors in completing the Bid Proposal Form
18 Section IV, the amount listed to be applied towards the requirement for each
19 Tulalip Tribal Member NAOB and NAOB shall govern and the Tulalip Tribal
20 Member NAOB and NAOB total shall be adjusted accordingly. The
21 information and commitments demonstrated in the Bid Proposal Form
22 Section IV shall become a condition of any subsequent award of a contract
23 to that bidder and the Bid Proposal Form itself shall become a part of the
24 subsequent contract.
25

26 The Contracting Agency shall consider as non-responsive and shall reject
27 any bid proposal submitted that does not contain a Completed Section IV
28 of the Bid Proposal Form or contains a List of Tulalip Tribal Member NAOB
29 Subcontractor(s) and or Supplier(s) and or a List of NAOB Subcontractor(s)
30 and or Supplier(s) that fails to demonstrate that the bidder will meet the
31 Tulalip Tribal Member NAOB or NAOB contract requirements.
32

Procedures Between Award and Execution

33 After award of the contract, the successful bidder shall provide the
34 additional information described below. A failure to comply shall result in the
35 forfeiture of the bidder's proposal bond or deposit.
36
37

38 The Contracting Agency will notify the successful bidder of the award of the
39 contract in writing and will include a request for a further breakdown of the
40 Tulalip Tribal Member NAOB and NAOB information. After award and prior
41 to execution of the contract, the bidder shall submit the following items:
42

43 1. Additional information for all successful Tulalip Tribal Member NAOB and
44 NAOB as shown on the List of Tulalip Tribal Member NAOB

SPECIAL PROVISIONS - Continued

1 Subcontractor(s) and or Supplier(s) and the List of NAOB Subcontractor(s)
2 and or Supplier(s) included in Section IV of the Bid Proposal Form:
3

- 4 • Correct business name, federal employee identification number (if
5 available), and mailing address.
- 6 • List of all bid items assigned to each successful Tulalip Tribal
7 Member NAOB, or NAOB, including unit prices and extensions.
- 8 • Description of partial items (if any) to be sublet to each successful
9 Tulalip Tribal Member NAOB or NAOB specifying the distinct
10 elements of work under each item to be performed by the Tulalip
11 Tribal Member NAOB or NAOB and including the dollar value of the
12 Tulalip Tribal Member NAOB or NAOB.
- 13 • Submit evidence of certification issued by the Tulalip TERO Offices
14 for the Tulalip Tribal Member NAOB or NAOB.
15

16 Total amounts shown for each Tulalip Tribal Member NAOB and NAOB shall
17 not be less than the amount shown on the Bid Proposal Form Section IV.
18 This submittal, showing the Tulalip Tribal Member NAOB and NAOB work
19 item breakdown, when accepted by the Contracting Agency and resulting in
20 contract execution, shall become a part of the contract. A breakdown that
21 does not conform to the List of Tulalip Tribal Member NAOB
22 Subcontractor(s) and or Supplier(s) and the List of NAOB Subcontractor(s)
23 and or Supplier(s) included in Section IV of the Bid Proposal Form or that
24 demonstrates a lesser amount of Tulalip Tribal Member NAOB or NAOB
25 participation than that included in the Certification will be returned for
26 correction. The contract will not be executed by the Contracting Agency until
27 a satisfactory breakdown has been submitted.
28

Procedures After Execution Reporting

29 The Contractor shall submit a “Quarterly Report of Amounts Credited as
30 Tulalip Tribal Member NAOB and NAOB Participation” (actual payments) on
31 a quarterly basis for any calendar quarter in which Tulalip Tribal Member
32 NAOB and NAOB work is accomplished or upon completion of the project,
33 as appropriate. The quarterly reports are due on January 20th, April 20th,
34 July 20th, and October 20th of each year. The dollars reported will be in
35 accordance with the “Counting Tulalip Tribal Member Native American-
36 Owned Business or Native American-Owned Business Participation”
37 section of this specification.
38

39
40 In the event that the payments to a Tulalip Tribal Member NAOB or NAOB
41 have been made by an entity other than the Prime Contractor (as in the
42 case of a lower-tier subcontractor or supplier), then the Prime Contractor

SPECIAL PROVISIONS - Continued

1 shall obtain the quarterly report, including the signed affidavit, from the
2 paying entity and submit the report to the Contracting Agency.
3

4 **Damages for Noncompliance**

5 When a Contractor violates the Tulalip Tribal Member NAOB and or NAOB
6 provisions of the contract, the Contracting Agency may incur damages.
7 These damages consist of additional administrative costs including, but not
8 limited to, the inspection, supervision, engineering, compliance, and legal
9 staff time and expenses necessary for investigating, reporting, and
10 correcting violations. Damages attributable to a Contractor's violations of
11 the Tulalip Tribal Member NAOB and or NAOB provisions may be deducted
12 from progress payments due to the Contractor or from retainage withheld
13 by the Contracting Agency as allowed by the Contract documents. Before
14 any money is withheld, the Contractor will be provided with a notice of the
15 basis of the violations and an opportunity to respond.
16

17 The Contracting Agency's decision to recover damages for a Tulalip Tribal
18 Member NAOB and or NAOB provision violation does not limit its ability to
19 suspend or revoke the Contractor's pre-qualification status or seek other
20 remedies as allowed by tribal, federal or State law. In appropriate
21 circumstances, the Contracting Agency may also refer the Contractor to
22 Tribal, State, or Federal authorities for additional sanctions.
23

24 **1-07.2 State Taxes**

25
26 Section 1-07.2, including its sub-sections, in its entirety is revised to read:
27

28 (*****)

29 The Tulalip Tribes of Washington is a federally recognized Indian Tribal
30 government with a constitution and bylaws approved by the United States
31 Secretary of the Interior. See: 65 Federal Register 13298, 13301 (March 13,
32 2000). As a recognized tribal government, The Tulalip Tribes of Washington
33 and all of its governmental agencies, is a tax-exempt entity.
34

35 See: 26 USC § 7871, and Washington Administrative Code Excise Tax
36 Rule 192 (WAC 458-20-192). The project is tax exempt from all Sales
37 and/or Use Taxes for all materials and supplies incorporated in construction
38 of the work that become a permanent part of the Project and some B&O
39 taxes. Upon request, a Tax Exemption form may be obtained from The
40 Tulalip Tribes.
41

42 The Washington State Department of Revenue has issued special rules on
43 the State Sales Tax. The Contractor should contact the Washington State

SPECIAL PROVISIONS - Continued

1 Department of Revenue for answers to questions in this area. The
2 Contracting Agency will not adjust its payment if the Contractor bases a bid
3 on a misunderstood tax liability.

4
5 The Contractor shall include all Contractor-paid taxes in the unit bid prices
6 or other contract amounts.

7
8 The Contractor shall not collect from the Contracting Agency, retail sales
9 tax on the full contract price. The Contracting Agency will not add this sales
10 tax to each payment to the Contractor.

11
12 **1-07.3 Fire Prevention and Merchantable Timber Requirements**

13
14 **1-07.3(1) Fire Prevention Control and Countermeasures Plan**

15
16 Section 1-07.3(1) is revised to read:

17
18 (*****)
19 When the Work is in or next to Tribal, State, or Federal forests, the
20 Contractor shall know and observe all laws and rules (Tribal, State, or
21 Federal) on fire prevention and sanitation. The Contractor shall ask the
22 Tulalip Tribes' Forestry Manager and local forest supervisor or regional
23 manager, as applicable, to outline requirements for permits, sanitation,
24 firefighting equipment, and burning.

25
26 The Contractor shall take all reasonable precautions to prevent and
27 suppress forest fires. In case of forest fire, the Contractor shall immediately
28 notify The Tulalip Tribes and the nearest forest headquarters of its exact
29 site and shall make every effort to suppress it. If needed, the Contractor
30 shall require his/her employees and those of any Subcontractor to work
31 under forest officials in fire control efforts.

32
33 **1-07.3(2) Merchantable Timber Requirements**

34
35 Section 1-07.3(2) is revised to read:

36
37 (*****)
38 When merchantable timber is to be cut, the Contractor shall obtain a permit
39 from The Tulalip Tribes Forestry Department or the appropriate regional
40 office of the State Department of Natural Resources and comply fully with
41 the laws and regulations of The Tulalip Tribes and the State Forest
42 Practices Act, as applicable.

43

SPECIAL PROVISIONS - Continued

1 No person may export from the United States, or sell, trade, exchange, or
2 otherwise convey to any other person for the purpose of export from the
3 United States, timber originating from the project.

4
5 The Contractor shall comply with the Forest Resources Conservation and
6 Shortage Relief Amendments Act of 1993 (Public Law 103-45) and the
7 Washington State Log Export Regulations (WAC 240-15).

8
9 **1-07.5 Environmental Regulations**

10
11 This Section is supplemented with the following:

12
13 (September 20, 2010 WSDOT GSP, Option 1.)

14 **Environmental Commitments**

15 The following Provisions summarize the requirements, in addition to those
16 required elsewhere in the Contract, imposed upon the Contracting Agency
17 by the various documents referenced in the Special Provision PERMITS
18 AND LICENSES. Throughout the work, the Contractor shall comply with
19 the following requirements:

20
21 (*****)

22 The intentional bypass of stormwater from all or any portion of a stormwater
23 treatment system is prohibited without the approval of the Engineer.

24
25 No Contractor staging areas will be allowed within 100 feet of any waters of
26 the Tribe or State including wetlands.

27
28 (August 3, 2009 WSDOT GSP, Option 2)

29 **Payment**

30 All costs to comply with this special provision for the environmental
31 commitments and requirements are incidental to the contract and are the
32 responsibility of the Contractor. The Contractor shall include all related
33 costs in the associated bid prices of the contract.

34
35 **1-07.5(1) General**

36
37 The second paragraph of Section 1-07.5(1) is revised to read:

38
39 (*****)

40 The Contractor shall be responsible to immediately report to the Engineer
41 any deviation from the Contract provisions pertaining to environmental
42 compliance, including but not limited to spills, unauthorized fill in waters of
43 the Tribes including wetlands, unauthorized fill in waters of the State

SPECIAL PROVISIONS - Continued

1 including wetlands, water quality standards, noise, air quality, etc.

2

3 Item 3 in the third paragraph of Section 1-07.5(1) is revised to read:

4

5 (*****)

6 3. No equipment shall enter waters of the Tribes or waters of the State,
7 except as may be specified in the Contract.

8

9 **1-07.5(2) State Department of Fish and Wildlife**

10

11 Delete the first paragraph of Section 1-07.5(2) and replace with:

12

13 (*****)

14 In doing the Work located within the Tulalip Indian Reservation boundaries,
15 the Contractor shall follow the laws, ordinances, rules and regulations of the
16 Tulalip Tribes. Contractor shall consult with the Tulalip Tribes' Natural
17 Resources Department for specific requirements in completing the Work on
18 the reservation. In doing the Work located outside the boundaries of the
19 Tulalip Tribes Reservation, the Contractor shall:

20

21 **1-07.5(3) State Department of Ecology**

22

23 The first paragraph of Section 1-07.5(3) is revised to read:

24

25 (*****)

26 In doing the Work located within the Tulalip Indian Reservation boundaries,
27 the Contractor shall follow the laws, ordinances, rules and regulations of the
28 Tulalip Tribes. Contractor shall consult with the Tulalip Tribes' Natural
29 Resources Department for specific requirements in completing the Work on
30 the reservation. In doing the Work located outside the boundaries of the
31 Tulalip Tribes Reservation, the Contractor shall:

32

33 Items 4 and 8 in the first paragraph of Section 1-07.5(3) are revised to read:

34

35 (*****)

36 4. Perform Work in such a manner that all materials and substances
37 not specifically identified in the Contract documents to be placed in
38 the water do not enter waters of the Tribes or waters of the State,
39 including wetlands. These include, but are not limited to, petroleum
40 products, hydraulic fluid, fresh concrete, concrete wastewater,
41 process wastewater, slurry materials, and waste from shaft drilling,
42 sediments, sediment-laden water, chemicals, paint, solvents, or
43 other toxic or deleterious materials.

44

SPECIAL PROVISIONS - Continued

1 8. Notify the Engineer and Ecology Department immediately should oil,
2 chemicals, or sewage spill into waters of the Tribes or waters of the
3 State.
4

5 **1-07.5(4) Air Quality**

6
7 The first paragraph of Section 1-07.5(4) is revised to read:

8
9 (*****)

10 The Contractor shall comply with all rules of local air pollution authorities. If
11 there are none, air-quality rules of the State Department of Ecology shall
12 govern the Work located outside the boundaries of the Tulalip Tribes
13 Reservation. The Contractor shall consult with the Tulalip Tribes' Natural
14 Resources Department to ascertain the applicable laws, ordinances, rules,
15 and regulations governing the Work on the Tulalip Indian Reservation.
16

17 **1-07.6 Permit and Licenses**

18
19 Section 1-07.6 is supplemented with the following:

20
21 (*****)

22 Tulalip Tribes Grading Permit
23 EPA NPDES permit (Tulalip Tribes held)
24

25 **1-07.7 Load Limits**

26 (March 13, 1995 WSDOT GSP, Option 6)

27
28 This Section is supplemented with the following:

29
30 If the sources of materials provided by the Contractor necessitate hauling
31 over roads other than State Highways, the Contractor shall, at the
32 Contractor's expense, make all arrangements for the use of the haul routes.
33

34 **1-07.11 Requirements for Nondiscrimination**

35
36 **1-07.11(2) Contractual Requirements**

37
38 **1-07.11(2)A Equal Employment Opportunity (EEO) Responsibilities**

39
40 Under the heading "Title VI Responsibilities" of Section 1-07.11(2)A, items 4, 5 and
41 6 in the first paragraph are revised to read:
42

SPECIAL PROVISIONS - Continued

1 (*****)

2 4. **Information and Reports** – The Contractor shall provide all information
3 and reports required by the Regulations or directives issued pursuant
4 thereto, and shall permit access to its books, records, accounts, other
5 sources of information, and its facilities as may be determined by The
6 Tulalip Tribes to be pertinent to ascertain compliance with such
7 Regulations, orders and instructions. Where any information required of
8 a Contractor is in the exclusive possession of another who fails or
9 refuses to furnish this information, the Contractor shall so certify to The
10 Tulalip Tribes as appropriate and shall set forth what efforts it has made
11 to obtain the information.

12
13 5. **Sanctions for Noncompliance** – In the event of the Contractor’s
14 noncompliance with the nondiscrimination provisions of this Contract,
15 The Tulalip Tribes shall impose such Contract sanctions as it may
16 determine to be appropriate, including, but not limited to:

- 17
18 a. Withholding of payments to the Contractor under the Contract
19 until the Contractor complies, and/or;
20 b. Cancellation, termination, or suspension of the Contract, in whole
21 or in part.

22
23 6. **Incorporation of Provisions** – The Contractor shall include the
24 provisions of paragraphs (1) through (5) in every subcontract, including
25 procurement of materials and leases of equipment, unless exempt by
26 the Regulations, or directives issued pursuant thereto. The Contractor
27 shall take such action with respect to any Subcontractor or procurement
28 as The Tulalip Tribes may direct as a means of enforcing such provisions
29 including sanctions for noncompliance.

30
31 Provided, however, that in the event a Contractor becomes involved in,
32 or is threatened with, litigation with a Subcontractor or supplier as a
33 result of such direction, the Contractor may request The Tulalip Tribes
34 to enter into such litigation to protect the interest of The Tulalip Tribes.
35

SPECIAL PROVISIONS - Continued

1 **1-07.11(10) Records and Reports**

2

3 **1-07.11(10)B Required Records and Retention**

4

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

6

7 (*****)

8 All records must be retained by the Contractor for a period of 3 years
9 following acceptance of the Contract Work. All records shall be available at
10 reasonable times and places for inspection by authorized representatives
11 of either The Tulalip Tribes.

12

13 **1-07.12 Federal Agency Inspection**

14

15 Section 1-07.12 is supplemented with the following:

16

17 (*****)

18 **Indian Preference and Tribal Ordinances**

19

20 This project is located on the Tulalip Indian Reservation. It is the
21 Contractor's responsibility to contact the person and/or office listed in this
22 special provision to determine whether any tribal laws or taxes apply. If the
23 tribal laws and taxes do apply, the Contractor shall comply with them in
24 accordance with Section 1-07.1.

25

26 Tribal Employment Rights Ordinances (TEROs), may utilize a variety of
27 tools to encourage Indian employment. These tools may include, but are
28 not limited to, TERO fees, Indian hiring preference, Indian-owned business
29 subcontracting preference and/or an Indian training requirement. Other
30 requirements may be a Tribal business license, a required compliance plan
31 and/or employee registration requirements. Every tribe is different and each
32 may be willing to work cooperatively with the Contractor to develop a
33 strategy that works for both parties. For specific details, the Contractor
34 should contact the Tulalip Tribes.

35

36 The state recognizes the sovereign authority of the tribe and supports the
37 tribe's efforts to enforce its rightful and legal ordinances and expects the
38 Contractor to comply and cooperate with the tribe. The costs related to such
39 compliance shall be borne solely by the Contractor, who is advised to
40 contact the tribal representative listed above, prior to submitting a bid, to
41 assess the impact of compliance on the project.

42

43 Although Indian preference cannot be compelled or mandated by the
44 Contracting Agency, there is no limitation on voluntary Contractor or

SPECIAL PROVISIONS - Continued

1 Subcontractor initiated preferences if otherwise lawful. 41 CFR 60-1.5(a)7
2 provides as follows:

3
4 Work on or near Indian reservations – It shall not be a violation of the
5 equal opportunity clause for a construction or non-construction
6 Contractor to extend a publicly announced preference in employment to
7 Indians living on or near an Indian reservation in connection with
8 employment opportunities on or near an Indian reservation. The use of
9 the word *near* would include all that area where a person seeking
10 employment could reasonably be expected to commute to and from in
11 the course of a work day. Contractors or Subcontractors extending such
12 a preference shall not, however, discriminate among Indians on the
13 basis of religion, sex, or tribal affiliation, and the use of such a preference
14 shall not excuse a Contractor from complying with the other
15 requirements as contained in the August 25, 1981 Department of Labor,
16 Office of Federal Contract Compliance Programs, Government
17 Contractors Affirmative Actions Requirements.

18
19 **1-07.14 Responsibility for Damage**

20
21 Section 1-07.14 is revised to read:

22
23 (*****)

24 The Tulalip Tribes, its Board of Directors, and all officers and employees,
25 will not be responsible in any manner: for any loss or damage that may
26 happen to the Work or any part; for any loss of material or damage to any
27 of the materials or other things used or employed in the performance of
28 Work; for injury to or death of any persons, either workers or the public; or
29 for damage to the public for any cause which might have been prevented
30 by the Contractor, or the workers, or anyone employed by the Contractor.

31
32 The Contractor shall be responsible for any liability imposed by law for
33 injuries to, or the death of, any persons or damages to property resulting
34 from any cause whatsoever during the performance of the Work, or before
35 final acceptance.

36
37 Subject to the limitations in this section, and RCW 4.24.115, the Contractor
38 shall indemnify, defend, and save harmless The Tulalip Tribes, its Board of
39 Directors from all claims, suits, or actions brought for injuries to, or death of,
40 any persons or damages resulting from construction of the Work or in
41 consequence of any negligence or breach of Contract regarding the Work,
42 the use of any improper materials in the Work, caused in whole or in part by
43 any act or omission by the Contractor or the agents or employees of the
44 Contractor during performance or at any time before final acceptance. In
45 addition to any remedy authorized by law, The Tulalip Tribes may retain so

SPECIAL PROVISIONS - Continued

1 much of the money due the Contractor as deemed necessary by The Tulalip
2 Tribes to ensure the defense and indemnification obligations of this section
3 until disposition has been made of such suits or claims.
4

5 Subject to the limitations in this section and RCW 4.24.115, the Contractor
6 shall indemnify, defend, and save harmless any county, city, or region, its
7 officers, and employees connected with the Work, within the limits of which
8 county, city, or region the Work is being performed, all in the same manner
9 and to the same extent as provided above for the protection of The Tulalip
10 Tribes, its Directors, officers, and employees. The Tulalip Tribes may retain
11 so much of the money due the Contractor as deemed necessary by the
12 Tulalip Tribes to ensure the defense and indemnification obligations of this
13 section pending disposition of suits or claims for damages brought against
14 the county, city, or district.
15

16 Pursuant to RCW 4.24.115, if such claims, suits, or actions result from the
17 concurrent negligence of (a) the indemnitee or the indemnitee's agents or
18 employees and (b) the Contractor or the Contractor's agent or employees,
19 the indemnity provisions provided in the preceding paragraphs of this
20 section shall be valid and enforceable only to the extent of the Contractor's
21 negligence or the negligence of its agents and employees.
22

23 The Contractor shall bear sole responsibility for damage to completed
24 portions of the project and to property located off the project caused by
25 erosion, siltation, runoff, or other related items during the construction of the
26 project. The Contractor shall also bear sole responsibility for any pollution
27 of rivers, streams, ground water, or other waters that may occur as a result
28 of construction operations.
29

30 The Contractor shall exercise all necessary precautions throughout the life
31 of the Project to prevent pollution, erosion, siltation, and damage to
32 property.
33

34 The Contracting Agency will forward to the Contractor all claims filed against
35 the Tulalip Tribes according to RCW 4.92.100 that are deemed to have
36 arisen in relation to the Contractor's Work or activities under this Contract,
37 and, in the opinion of the Contracting Agency, are subject to the defense,
38 indemnity, and insurance provisions of the Contract. Claims will be deemed
39 tendered to the Contractor and insurer, who has named The Tulalip Tribes
40 and the State as a named insured or an additional insured under the
41 Contract's insurance provisions, once the claim has been forwarded via
42 certified mail to the Contractor. The Contractor shall be responsible to
43 provide a copy of the claim to the Contractor's designated insurance agent
44 who has obtained/met the Contract's insurance provision requirements.
45

SPECIAL PROVISIONS - Continued

1 Within 60 calendar days following the date a claim is sent by the Contracting
2 Agency to the Contractor, the Contractor shall notify the Claimant, The
3 Tulalip Tribes of the following:
4

- 5 a. Whether the claim is allowed or is denied in whole or in part, and, if
6 so, the specific reasons for the denial of the individual claim, and if
7 not denied in full, when payment has been or will be made to the
8 claimant(s) for the portion of the claim that is allowed, or
9 b. If resolution negotiations are continuing. In this event, status updates
10 will be reported no longer than every 60 calendar days until the claim
11 is resolved or a lawsuit is filed.
12

13 If the Contractor fails to provide the above notification within 60 calendar
14 days, then the Contractor shall yield to the Contracting Agency sole and
15 exclusive discretion to allow all or part of the claim on behalf of the
16 Contractor, and **the Contractor shall be deemed to have WAIVED any
17 and all defenses, objections, or other avoidances to the Contracting
18 Agency's allowance of the claim, or the amount allowed by the
19 Contracting Agency**, under common law, constitution, statute, or the
20 Contract and the Contract. If all or part of a claim is allowed, the Contracting
21 Agency will notify the Contractor via certified mail that it has allowed all or
22 part of the claim and make appropriate payments to the claimant(s) with
23 Tribal funds.
24

25 Payments of Tribal funds by the Contracting Agency to claimant(s) under
26 this section will be made on behalf of the Contractor and at the expense of
27 the Contractor, and the Contractor shall be unconditionally obligated to
28 reimburse the Contracting Agency for the "total reimbursement amount",
29 which is the sum of the amount paid to the claimant(s), plus all costs
30 incurred by the Contracting Agency in evaluating the circumstances
31 surrounding the claim, the allowance of the claim, the amount due to the
32 claimant, and all other direct and indirect costs for the Contracting Agency's
33 administration and payment of the claim on the Contractor's behalf. The
34 Contracting Agency will be authorized to withhold the total reimbursement
35 amount from amounts due the Contractor, or, if no further payments are to
36 be made to the Contractor under the Contract, the Contractor shall directly
37 reimburse the Contracting Agency for the amounts paid within 30 days of
38 the date notice that the claim was allowed was sent to the Contractor. In the
39 event reimbursement from the Contractor is not received by the Contracting
40 Agency within 30 days, interest shall accrue on the total reimbursement
41 amount owing at the rate of 12 percent per annum calculated at a daily rate
42 from the date the Contractor was notified that the claim was allowed. The
43 Contracting Agency's costs to enforce recovery of these amounts are
44 additive to the amounts owing.

SPECIAL PROVISIONS - Continued

1
2 The Contractor specifically assumes all potential liability for actions brought
3 by employees of the Contractor and, solely for the purpose of enforcing the
4 defense and indemnification obligations set forth in Section 1-07.14, the
5 Contractor specifically waives any immunity granted under the State
6 industrial insurance law, Title 51 RCW. This waiver has been mutually
7 negotiated by the parties. The Contractor shall similarly require that each
8 Subcontractor it retains in connection with the project comply with the terms
9 of this paragraph, waive any immunity granted under Title 51 RCW, and
10 assume all liability for actions brought by employees of the Subcontractor.

11 12 **1-07.15 Temporary Water Pollution Prevention**

13
14 Section 1-07.15 is supplemented with the following:

15
16 (*****)

17 In an effort to prevent, control, and stop water pollution and erosion within
18 the project, thereby protecting the Work, nearby land, streams, and other
19 bodies of water, the Contractor shall perform all Work in strict accordance
20 with all Tribal, Federal, State, and local laws and regulations governing
21 waters of the Tribes and waters of the State, as well as permits acquired for
22 the project.

23
24 The Contractor shall perform all temporary water pollution/erosion control
25 measures shown in the Plans, specified in the Special Provisions, proposed
26 by the Contractor and approved by the Engineer, or ordered by the Engineer
27 as Work proceeds.

28 29 **1-07.15(1) Spill Prevention, Control, and Countermeasures Plan**

30
31 Under the heading "SPCC Plan Element Requirements" of Section 1-07.15(1),
32 item 2 of the first paragraph is revised to read:

33
34 (*****)

35 **Spill Reporting:** List the names and telephone numbers of the Tribal,
36 Federal, State, and local agencies the Contractor shall notify in the event of
37 a spill.

38 39 **1-07.16 Protection and Restoration of Property**

40 41 **1-07.16(2) Vegetation Protection and Restoration**

42
43 Section 1-07.16(2) is supplemented with the following:

SPECIAL PROVISIONS - Continued

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

2 Vegetation and soil protection zones for trees shall extend out from the trunk
3 to a distance of 1 foot radius for each inch of trunk diameter at breast height.

4

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

7

8 Vegetation and soil protection zones for herbaceous vegetation shall extend
9 to encompass the diameter of the plant as measured from the outer edge
10 of the plant.

11

12 **1-07.16(4) Archaeological and Historical Objects**

13

14 Section 1-07.16(4) is supplemented with the following:

15

16 (*****)

17 A. The Contractor is advised that construction work within this Contract is
18 subject to the provisions of state and federal laws and regulations
19 pertaining to the preservation of archaeological and cultural resources.

20

21 B. In the event that any archaeological or cultural resources are uncovered
22 during the course of construction, all work shall cease until an inspection
23 and evaluation of the site has been made by an archaeologist to insure
24 that archaeological data are properly preserved. The Contractor shall
25 notify the Owner who will in turn notify the proper authorities.

26

27 C. The Contractor should anticipate reasonable delays while the
28 archaeological investigations are being made and should make
29 allowance for these delays under the appropriate bid items. No
30 additional compensation will be allowed.

31

32 D. The Owner will determine if provisions for a cultural resources
33 representative to be on site during construction activities is required, at
34 no cost to the Contractor.

35

36 **1-07.17 Utilities and Similar Facilities**

37

38 Section 1-07.17 is supplemented with the following:

39

40 (April 2, 2007 WSDOT GSP Option 1)

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

SPECIAL PROVISIONS - Continued

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5

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor's convenience:

Telephone/Communication: Zippy Fiber Tim Rennick 13293 Smokey Point Blvd Marysville, WA 98271 Office (425) 263-4025 Cell (425) 210-0333	Telephone/Communication: Tulalip Technology Data Services Kevin Jones 2601 88th St. NE Quil Ceda Village, WA 98271 (360) 716-5150
Telephone/Communication: Salish Networks Richard Brown 2601 88th St. NE Quil Ceda Village, WA 98271 Office (360) 716-3277	Telephone/Communication: Verizon OSP Engineering Tim Rennick PO Box 1003 Everett, WA 98200 Office: (425) 327-8118
Water: Tulalip Utilities Mike Leslie 3015 Mission Beach Rd Tulalip, WA 98271 Office: (360) 716-4840	Power: Snohomish Co. Public Utilities District (PUD) Kallen Shaughnessy-Randall 210 East Division Street Arlington, WA 98223 (425) 783-4370

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This Section is supplemented with the following:

(*****)

The temporary removal, replacement, bracing or holding of any utility or structure, including power and telephone poles, required to accomplish the work, shall be included in the contract price(s) for the bid item(s) involved unless otherwise stated in the Plans or these Special Provisions. Resetting existing structures to grade shall be performed by the Contractor.

The Contractor is responsible for coordinating with the utility companies and providing adequate advance notice to avoid schedule delays.

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

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

SPECIAL PROVISIONS - Continued

1 (*****)

2 Any authorized agent of the Contracting Agency or utility owners may enter
3 the right-of-way to repair, rearrange, alter, or connect their equipment. The
4 Contractor shall cooperate with such effort and shall avoid creating delays
5 or hindrances to those doing the work. As needed, the Contractor shall
6 arrange to coordinate work schedules.

7
8 The Contractor shall carry out the Work in a way that will minimize
9 interference and delay for all forces involved. Any costs incurred prior to
10 the utility owners anticipated completion (or if no completion is specified,
11 within a reasonable period of time) that results from the coordination and
12 prosecution of the Work regarding utility adjustment, relocation,
13 replacement, or construction shall be at the Contractor's expense as
14 provided in Section 1-05.14.

15
16 The Contractor shall coordinate all work with the various utility companies
17 and their Contractors. The Contractor, when scheduling his work crews,
18 shall use production rates that anticipate the need to provide block-outs
19 and/or gaps in the driveways, curb and gutter, and/or pavement sections
20 where existing utility structures currently exist, and then come back at a
21 later time to construct the missing sections after the utility has been
22 relocated or adjusted by the applicable utility. The Contractor shall assume
23 that the utilities will not be relocated prior to construction of this project nor
24 at his convenience during the course of construction. As such, the
25 Contractor shall assume such, and schedule his crews and his
26 subcontractors to remobilize to the various sites and temporarily relocate
27 his or his subcontractor's crews to other areas of the project and complete
28 other unaffected portions of the project in order to coordinate the relocation
29 of the utilities with the various utility companies. There shall be no additional
30 money or time due the Contractor for leaving gaps or for buck-out
31 construction, remobilization, demobilization, out of sequence construction,
32 relocation of work crews, and construction of curb, gutter, or driveway
33 patches after the utility has been relocated. It is the intent of these
34 Specifications that the Contractor diligently pursue other work on the site
35 when such conflicts occur and recognize and plan for the inherent
36 inefficiencies and impaired production rates.

Payment

37
38
39
40 All costs to comply with this Section and repair specified in this Section,
41 unless otherwise stated, are incidental to the Contract and are the
42 responsibility of the Contractor. The Contractor shall include all related
43 costs in the bid prices of the Contract.
44

SPECIAL PROVISIONS - Continued

1 **1-07.23 Public Convenience and Safety**

2
3 **1-07.23(1) Construction Under Traffic**

4
5 (*****)

6 Lane closures are subject to the following restrictions:

7
8 28th Drive NW: 8:00 a.m. to 4:00 p.m.

9
10 The following special traffic requirements shall be adhered to during all
11 phases of construction:

12
13 28th Drive NW may be closed to traffic, EXCEPT, that local access must be
14 maintained at all times.

15
16 29th Drive NE may be closed to traffic, EXCEPT, that local access must be
17 maintained at all times.

18
19 30th Drive NW may be closed to traffic, EXCEPT, that local access must be
20 maintained at all times.

21
22 No other roads including Walter Moses Jr. Dr may be closed for this project.
23 At a minimum, a single lane of traffic shall be maintained open at all times,
24 with flaggers provided to alternate traffic where required. The Contractor
25 shall comply with all requirements of the approved Traffic Control Permit for
26 each work location.

27
28 A safe pedestrian access shall be provided at all times through the project
29 area. All lane closures shall be coordinated with school districts, other
30 contractors working within the project vicinity, local transit agencies, and
31 approved by the Contracting Agency.

32
33 The Contractor shall notify all property owners and tenants of detours, street
34 and alley closures, or other restrictions that may interfere with access.
35 Notification shall be at least forty-eight (48) hours in advance for residential
36 property, and at least seventy-two (72) hours in advance for commercial
37 property. Residential driveway access restrictions shall be limited to no
38 more than 2 hours of closure at a time.

39
40 Emergency traffic, such as police, fire, and disaster units, shall be provided
41 access at all times. In addition, the Contractor shall coordinate Contractor
42 activities with all disposal firms, school districts, shipping companies, and
43 transit bus service that may be operating in the project area.

SPECIAL PROVISIONS - Continued

1 If the Engineer determines the permitted closure hours adversely affect
2 traffic, the Engineer may adjust the hours accordingly. The Engineer will
3 notify the Contractor in writing of any change in the closure hours.

4
5 Lane closures are not allowed on any of the following:

- 6
7 1. A holiday,
- 8
9 2. A holiday weekend; holidays that occur on Friday, Saturday, Sunday
10 or Monday are considered a holiday weekend. A holiday weekend
11 includes Saturday, Sunday, and the holiday.
- 12
13 3. After 3:00 p.m. on the day prior to a holiday or holiday weekend.

14
15 **1-07.27 No Waiver of State's Legal Rights**

16
17 Section 1-07.27 including title is revised to read:

18
19 (*****)

20 **1-07.27 No Waiver of The Tulalip Tribes' Legal Rights**

21
22 The Tulalip Tribes shall not be precluded or estopped by any measurement,
23 estimate, or certificate made either before or after the completion and
24 acceptance of the Work and payment therefore from showing the true
25 amount and character of the Work performed and materials furnished by
26 the Contractor, or from showing that any such measurement, estimate, or
27 certificate is untrue or incorrectly made, or that the Work or materials do not
28 conform, in fact, to the Contract. The Tulalip Tribes shall not be precluded
29 or estopped, notwithstanding any such measurement, estimate, or
30 certificate, and payment in accordance therewith, from recovering from the
31 Contractor and the Sureties such damages as it may sustain by reason of
32 the Contractor's failure to comply with the terms of the Contract. Neither the
33 acceptance by The Tulalip Tribes, nor any payment for the whole or any part
34 of the Work, nor any extension of time, nor any possession taken by The
35 Tulalip Tribes shall operate as a waiver of any portion of the Contract or of
36 any power herein reserved or any right to damages herein provided, or bar
37 recovery of any money wrongfully or erroneously paid to the Contractor. A
38 waiver of any breach of the Contract shall not be held to be a waiver of any
39 other or subsequent breach.

40
41 The Contractor and The Tulalip Tribes recognize that the impact of
42 overcharges to The Tulalip Tribes by the Contractor resulting from antitrust
43 law violations by the Contractor's suppliers or Subcontractors adversely
44 affects The Tulalip Tribes rather than the Contractor. Therefore, the

SPECIAL PROVISIONS - Continued

1 Contractor agrees to assign to The Tulalip Tribes any and all claims for such
2 overcharges.

3 **1-08 Prosecution and Progress**

4
5 Add the following new section:

6
7 **1-08.0 Preliminary Matters** **New Section**
8 (May 25, 2006 APWA GSP)

9
10 **1-08.0(1) Preconstruction Conference**
11 (October 10, 2008 APWA GSP)

12 Prior to the Contractor beginning the work, a preconstruction conference
13 will be held between the Contractor, the Engineer and such other interested
14 parties as may be invited. The purpose of the preconstruction conference
15 will be:

- 16 1. To review the initial progress schedule;
- 17 2. To establish a working understanding among the various parties
18 associated or affected by the work;
- 19 3. To establish and review procedures for progress payment,
20 notifications, approvals, submittals, etc.;
- 21 4. To establish normal working hours for the work;
- 22 5. To review safety standards and traffic control; and
- 23 6. To discuss such other related items as may be pertinent to the work.

24 The Contractor shall prepare and submit at the preconstruction conference
25 the following:

- 26 1. A breakdown of all lump sum items;
- 27 2. A preliminary schedule of working drawing submittals; and
- 28 3. A list of material sources for approval if applicable.

SPECIAL PROVISIONS - Continued

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
8 consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. Monday
9 through Friday, exclusive of a lunch break. If the Contractor desires different
10 than the normal working hours stated above, the request must be submitted
11 in writing prior to the preconstruction conference, subject to the provisions
12 below. The working hours for the Contract shall be established at or prior
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.
20 This request shall state what hours are being requested, and why.
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
24 If the Contracting Agency approves such a deviation, such approval may be
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
29 the Contracting Agency for the costs in excess of straight-time costs
30 for Contracting Agency representatives who worked during such
31 times. (The Engineer may require designated representatives to be
32 present during the work. Representatives who may be deemed
33 necessary by the Engineer include, but are not limited to: survey
34 crews; personnel from the Contracting Agency's material testing lab;
35 inspectors; and other Contracting Agency employees or third party
36 consultants when, in the opinion of the Engineer, such work
37 necessitates their presence.)
38
39 2. Considering the work performed on Saturdays, Sundays, and
40 holidays as working days with regard to the contract time.
41
42 3. Considering multiple work shifts as multiple working days with
43 respect to contract time even though the multiple shifts occur in a
44 single 24-hour period.

SPECIAL PROVISIONS - Continued

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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 - Continued

1
2 **1-08.3 Progress Schedule**

3
4 Section 1-08.3 is supplemented with the following:

5
6 (*****)

7 The Contractor shall submit a construction schedule to the Contracting
8 Agency within 10 calendar days of award of contract. The Contracting
9 Agency will have the right to review the schedule, and must approve the
10 schedule prior to issuing Notice to Proceed.

11
12 The weekly schedule updates shall clearly identify the critical path items of
13 the work.

14
15 **1-08.4 Prosecution of Work**

16
17 Delete this Section and replace it with the following:

18
19 (July 23, 2015 APWA GSP)

20 **1-08.4 Notice to Proceed and Prosecution of Work**

21
22 Notice to Proceed will be given after the contract has been executed and
23 the contract bond and evidence of insurance have been approved and filed
24 by the Contracting Agency. The Contractor shall not commence with the
25 work until the Notice to Proceed has been given by the Engineer. The
26 Contractor shall commence construction activities on the project site within
27 ten days of the Notice to Proceed Date, unless otherwise approved in
28 writing. The Contractor shall diligently pursue the work to the physical
29 completion date within the time specified in the contract. Voluntary
30 shutdown or slowing of operations by the Contractor shall not relieve the
31 Contractor of the responsibility to complete the work within the time(s)
32 specified in the contract.

33
34 When shown in the Plans, the first order of work shall be the installation of
35 high visibility fencing to delineate all areas for protection or restoration, as
36 described in the Contract. Installation of high visibility fencing adjacent to
37 the roadway shall occur after the placement of all necessary signs and traffic
38 control devices in accordance with 1-10.1(2). Upon construction of the
39 fencing, the Contractor shall request the Engineer to inspect the fence. No
40 other work shall be performed on the site until the Contracting Agency has
41 accepted the installation of high visibility fencing, as described in the
42 Contract.

43

SPECIAL PROVISIONS - Continued

1 Section 1-08.4 is supplemented with the following:

2
3 (*****)

4 **Construction Coordination Meetings**

5 The Contracting Agency or its authorized representative will schedule and
6 administer construction coordination meetings on a weekly basis with the
7 Engineer, Contractor, subcontractors, and other interested parties. The
8 Contractor shall actively and regularly prepare for, attend, and participate in
9 these meetings throughout the duration of the project until Contract
10 Completion. The purpose of these meetings is to coordinate and facilitate
11 communication between the parties to facilitate the performance of the
12 respective responsibilities and the successful completion of the project.

13
14 The Contracting Agency will establish the weekly meeting times, dates and
15 location with agreement from the Engineer and Contractor.

16
17 Project meetings shall be held at a location designated by the Contracting
18 Agency.

19
20 The Contracting Agency will make physical arrangements for meetings,
21 prepare agenda with copies for participants, preside at meetings, record
22 minutes, and distribute copies within 5 working days to participants and
23 those affected by decisions made at meetings.

24
25 Attendance: Contracting Agency, Engineer, Contractor's Project Manager,
26 and Project Superintendent all as appropriate to address agenda topics for
27 each meeting. Major subcontractors and suppliers shall attend when
28 requested by the Contracting Agency, Engineer, or Contractor.

29
30 The specific administrative and procedural requirements for project
31 meetings including, but not limited to, Safety, RFI Status, Contract
32 Submittals, Materials Submittals, RFPs, Field Directives, Change Orders,
33 project schedule, and 2-week look ahead, Working Days, Critical path
34 items, Contract compliance, Pay applications, and open discussion.

35 36 **Safety**

37 All parties agree that they are responsible for compliance with all tribal,
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
40 recognize that the responsibility for employee safety rests with each
41 employer respectively. Each contractor (prime or sub) shall be responsible
42 for the safety of its own employees. The Contracting Agency accepts no
43 responsibility for, nor will it provide any safety consultation, monitoring, or
44 enforcement to any contractor on the site concerning the safety of

SPECIAL PROVISIONS - Continued

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
6 importance. Under no conditions shall safety requirements be waived for
7 the sake of cost, schedule, or convenience. SAFETY MAY BE USED AS
8 CRITERIA FOR APPROVAL OF PAY APPLICATIONS. Unsafe conditions,
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

12 Each contractor, AS A MINIMUM, shall follow all tribal, local, and federal
13 laws regarding worker safety. This shall include all requirements of OSHA
14 and referenced standards therein included.
15

16 The Contracting Agency may, at various times, request voluntary OSHA
17 inspections. Each contractor shall immediately correct and respond to any
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
24 designated areas.
25

Safety Program

26
27 A. Contractor shall submit, within 10 days of Notice to Proceed, a copy of
28 its company safety program including jobsite-specific safety plans. This
29 program shall incorporate all lower-tier subcontractor safety information
30 or separate policies shall be submitted for all lower-tier subcontractors
31 used on the project. This safety policy shall conform to all OSHA
32 requirements and shall include as follows:
33

34 B. A Hazard Communications Program, including site specific Materials
35 Safety Data Sheets (MSDS) for all chemicals used by Contractor and its
36 subcontractors.
37

- 38 1. Provisions for continual training of all on-site employees. This shall
39 be done by holding weekly safety toolbox talks, documented by
40 signed attendance sheets with safety topic submitted to the
41 Contracting Agency at each weekly project meeting.
- 42 2. Weekly jobsite safety inspections shall be completed by each
43 Contractor.

SPECIAL PROVISIONS - Continued

- 1 3. Designation and continual training of competent persons for the
2 project.
- 3 4. Contractor shall provide services of a competent safety person (as
4 defined by OSHA) for the project to inspect the project for safety
5 hazards related to their Work. The safety person should not be one
6 of the superintendents dedicated to this Project; however, the safety
7 person shall be on-site whenever Work is being performed by
8 Contractor. The safety person shall attend the Project coordination
9 meetings.
- 10 5. Contractor, with assistance from all contractors' safety persons, shall
11 perform a monthly total Project safety audit conducted by a company
12 safety officer or independent consultant of the Contractor. Results of
13 the safety audit shall be submitted to the Contracting Agency and
14 distributed to all contractors the same day the audit is conducted by
15 Contractor. If a contractor does not immediately address any
16 observed or noted safety concern, Contractor's company safety
17 officer or independent consultant shall contact the Owner, through
18 the Contracting Agency. Contractor's company safety officer or
19 independent consultant, with assistance from Contractor's
20 competent safety person, shall record all accidents for the Project
21 and report their findings to the Owner, through the Contracting
22 Agency.
- 23 6. Provisions for enforcement of the safety policies by Site Foreman,
24 Superintendent, and/or Project Manager.
- 25 7. Documentation that each on-site employee has been trained in
26 general safety and has been informed of the location of the Safety
27 Program, Haz-Com Program, and Emergency procedures on this
28 project.

29
30 **Submittals**

- 31 A. Company safety programs, as described above, shall be submitted to
32 the Contracting Agency within ten days of Notice to Proceed or Letter of
33 Intent to Award. Additions to the program, such as documentation of
34 training as new employees arrive at the site, shall be forwarded to the
35 Contracting Agency. All contractor Safety Programs, and Haz-Com
36 Programs, with MSDS Sheets, will be kept in one central location within
37 the Contractor's office throughout the duration of the project.
- 38
39 B. Contractor is required to conduct and all employees are required to
40 attend a "Tool Box"-type safety meeting once a week. These meetings
41 may either be presided over by Contractor's foreman or another
42 competent representative designated by Contractor. The Contracting
43 Agency's personnel are available to participate in these safety meetings.
- 44

SPECIAL PROVISIONS - Continued

1 Contractor will be responsible to submit WEEKLY tool box safety
2 meeting minutes to the Contracting Agency while Contractor has
3 employees on-site.
4

5 C. All weekly inspections will be documented by Contractor and submitted
6 to the Owner, through the Contracting Agency. Contractor shall
7 immediately correct all deficiencies and submit a list of corrective actions
8 within 1 working day, or sooner if required, of safety inspection.
9

10 D. Subject-specific daily and/or weekly inspections by Contractor, including
11 temporary electric, crane, or other work activities as required, shall be
12 timely submitted to the Owner through the Contracting Agency.
13

14 **Training**

15 A. Contractor shall ensure that employee designated as Project Competent
16 Person has been fully trained for this task and has the full authority to
17 take corrective action when required.
18

19 B. Contractor shall provide continual training to Project Competent Person,
20 Superintendent, and Foreman as required by Tribal or OSHA standards.
21

22 C. The Contracting Agency may recommend General Safety Topics to
23 enable Contractor's supervising personnel to train employees if a
24 Contractor requests such assistance.
25

26 **1-08.5 Time for Completion**

27
28 Revise the third and fourth paragraphs to read:
29

30 (*****)

31 Contract time shall begin on the first working day following the Notice to
32 Proceed Date.
33

34 Each working day shall be charged to the contract as it occurs, until the
35 contract work is physically complete. If substantial completion has been
36 granted and all the authorized working days have been used, charging of
37 working days will cease. Each week the Engineer will provide the Contractor
38 a statement that shows the number of working days: (1) charged to the
39 contract the week before; (2) specified for the physical completion of the
40 contract; and (3) remaining for the physical completion of the contract. The
41 statement will also show the nonworking days and any partial or whole day
42 the Engineer declares as unworkable. Within 10 calendar days after the
43 date of each statement, the Contractor shall file a written protest of any
44 alleged discrepancies in it. To be considered by the Engineer, the protest

SPECIAL PROVISIONS - Continued

1 shall be in sufficient detail to enable the Engineer to ascertain the basis and
2 amount of time disputed. By not filing such detailed protest in that period,
3 the Contractor shall be deemed as having accepted the statement as
4 correct. If the Contractor is approved to work 10 hours a day and 4 days a
5 week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is
6 worked would ordinarily be charged as a working day then the fifth day of
7 that week will be charged as a working day whether or not the Contractor
8 works on that day.
9

10 Revise the sixth paragraph to read:

11
12 (*****)

13 The Engineer will give the Contractor written notice of the completion date
14 of the contract after all the Contractor's obligations under the contract have
15 been performed by the Contractor. The following events must occur before
16 the Completion Date can be established:

- 17
- 18 1. The physical work on the project must be complete; and
- 19
- 20 2. The Contractor must furnish all documentation required by the
- 21 contract and required by law, to allow the Contracting Agency to
- 22 process final acceptance of the contract. The following documents
- 23 must be received by the Project Engineer prior to establishing a
- 24 completion date:
- 25
- 26 a. Certified Payrolls (per Section 1-07.9(5)).
- 27 b. Material Acceptance Certification Documents.
- 28 c. Final Contract Voucher Certification.
- 29 d. Copies of the approved "Affidavit of Prevailing Wages Paid" for
- 30 the Contractor and all Subcontractors.
- 31 e. Property owner releases per Section 1-07.24.
- 32 f. An original signed and notarized Final Waiver and Release of
- 33 Claim Form from the Contractor.
- 34 g. Original signed and notarized Final Waiver and Release of Claim
- 35 Form for all Subcontractors and Material Suppliers regardless of
- 36 tier.
- 37 h. Affidavit from the Tulalip Tribes TERO office that the TERO Fee
- 38 for the Project has been paid.
- 39

40 Section 1-08.5 is supplemented with the following:

41
42 (*****)

43 This project shall be physically completed within 80 working days.

SPECIAL PROVISIONS - Continued

1 **1-09 MEASUREMENT AND PAYMENT**

2

3 **1-09.2 Weighing Equipment**

4

5 **1-09.2(1) General Requirements for Weighing Equipment**

6 (July 23, 2015 APWA GSP, Option 2)

7

8 Revise item 4 of the fifth paragraph to read:

9

- 10 4. Test results and scale weight records for each day's hauling operations
11 are provided to the Engineer daily. Reporting shall utilize WSDOT form
12 422-027, Scaleman's Daily Report, unless the printed ticket contains the
13 same information that is on the Scaleman's Daily Report Form. The
14 scale operator must provide AM and/or PM tare weights for each truck
15 on the printed ticket.

16

17 **1-09.6 Force Account**

18 (October 10, 2008 APWA GSP)

19

20 Supplement this section with the following:

21

22 The Contracting Agency has estimated and included in the Proposal, dollar
23 amounts for all items to be paid per force account, only to provide a common
24 proposal for Bidders. All such dollar amounts are to become a part of
25 Contractor's total bid. However, the Contracting Agency does not warrant
26 expressly or by implication that the actual amount of work will correspond
27 with those estimates. Payment will be made on the basis of the amount of
28 work actually authorized by Engineer.

29

30 **1-09.7 Mobilization**

31

32 Section 1-09.7 is supplemented with the following:

33

34 (*****)

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

SPECIAL PROVISIONS - Continued

1 required to remove all of the Contractor's operation and cleanup the site in
2 accordance with the Contract Documents. In calculating the partial payment
3 due for demobilization, percent completion will be based on the sum of
4 completed work.

5

6 **1-09.8 Payment for Material on Hand**
7 (August 3, 2009 WSDOT GSP, Option 1)

8

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

10

11 The Contracting Agency will not pay for material on hand when the invoice
12 cost is less than \$2,000. As materials are used in the work, credits equaling
13 the partial payments for them will be taken on future estimates. Each month,
14 no later than the estimate due date, the Contractor shall submit a letter to
15 the Engineer that clearly states: 1) the amount originally paid on the invoice
16 (or other record of production cost) for the items on hand, 2) the dollar
17 amount of the material incorporated into each of the various work items for
18 the month, and 3) the amount that should be retained in material on hand
19 items. If work is performed on the items and the Contractor does not submit
20 a letter, all of the previous material on hand payment will be deducted on
21 the estimate. Partial payment for materials on hand shall not constitute
22 acceptance. Any material will be 12 rejected if found to be faulty even if
23 partial payment for it has been made.

24

25 **1-09.9 Payments**

26

27 Revise the first paragraph to read:

28

29 (*****)

30 The basis of payment will be the actual quantities of Work performed
31 according to the Contract and as specified for payment. For items Bid as
32 lump sum, with a bid price of more than or equal to \$20,000, the Contractor
33 shall submit a breakdown of the lump sum price in sufficient detail for the
34 Engineer to determine the value of the Work performed on a monthly basis.
35 Lump sum breakdowns shall be provided to the Engineer no later than the
36 date of the preconstruction conference.

37

38 Delete the third paragraph and replace it with the following:

39

40 (*****)

41 Progress payments for completed work will be based upon progress
42 estimates prepared by the Contractor. A progress estimate cutoff date will
43 be established at the preconstruction conference.

44

SPECIAL PROVISIONS - Continued

1 The initial progress estimate will be made no later than 30 days after the
2 Contractor commences the work, and successive progress estimates will
3 be made every month thereafter until the Completion Date. Progress
4 estimates made during progress of the work are tentative, and made only
5 for the purpose of determining progress payment. The progress estimates
6 are subject to change at any time prior to the calculation of the Final
7 Payment.

8
9 The value of the progress estimate will be the sum of the following:

- 10 1. Unit Price Items in the Bid Form – the approximate quantity of
11 acceptable units of work completed multiplied by the unit price.
- 12 2. Lump Sum Items in the Bid Form – partial payment for lump sum Bid
13 items will be a percentage of the price in the Proposal based on the
14 Engineer’s determination of the amount of Work performed, with
15 consideration given to, but not exclusively based on, the Contractor’s
16 lump sum breakdown for that item.
- 17 3. Change Orders – entitlement for approved extra cost or completed
18 extra work as determined by the Engineer.

19 Progress payments will be made in accordance with the progress estimate
20 less:

- 21 1. Retainage per Section 1-09.9(1);
- 22 2. The amount of Progress Payments previously made; and
- 23 3. Funds withheld by the Contracting Agency for disbursement in
24 accordance with the Contract Documents.

25
26 Progress payments for work performed shall not be evidence of acceptable
27 performance or an admission by the Contracting Agency that any work has
28 been satisfactorily completed. The determination of payments under the
29 contract will be final in accordance with Section 1-05.1.

30
31 Payments will be made by warrants, issued by the Contracting Agency’s
32 fiscal officer, against the appropriate fund source for the project. Payments
33 received on account of work performed by a subcontractor are subject to
34 the provisions of RCW 39.04.250.
35

SPECIAL PROVISIONS - Continued

1 **1-09.11 Disputes and Claims**

2

3 Section 1-09.11 is revised to read:

4

5 (*****)

6 **Forum For Equitable Relief**

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

16

17 **Forum For Money Damages**

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

26 **1-10 TEMPORARY TRAFFIC CONTROL**

27

28 **1-10.1 General**

29

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

31

32 (*****)

33 The Contractor shall provide construction staging and traffic control plans
34 to The Contracting Agency for review and approval. Plans shall be
35 submitted for review no more than 7 calendar days following award of the
36 contract. Notice to Proceed will not be given until the traffic control plans
37 are approved. Plans shall be in accordance with the MUTCD and the
38 WSDOT "Work Zone Traffic Control Guidelines." A minimum of 10 working
39 days will be required for review. Whenever traffic control devices are located
40 on state highways or affect traffic on state highways, the temporary traffic
41 control plans will also be reviewed and approved by WSDOT. Plans will be
42 developed by the Traffic Control Supervisor or a licensed civil engineer.
43 These plans shall supplement Construction Staging Plans. Construction

SPECIAL PROVISIONS - Continued

1 Staging Plans shall be prepared by the Contractor or a licensed civil
2 engineer. The traffic control plans as provided by the Contractor shall
3 include and not be limited to the following information:

- 4
- 5 • Minimum lane widths provided for vehicular travel.
- 6 • Location, legend, and size for all signage.
- 7 • Location of flagger stations.
- 8 • Lane closure tapers.
- 9 • Identification and spacing for traffic control devices.
- 10 • Identification of pedestrian access routes.

11
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 • A description of the work that will be completed within each stage.
- 30 • Location(s) for access to and from the work area(s).
- 31

SPECIAL PROVISIONS - Continued

1 **1-10.2 Traffic Control Management**

2

3 **1-10.2(1) General**

4

5 (January 10, 2022 WSDOT GSP, Option 1)

6 The Traffic Control Supervisor shall be certified by one of the following:

7

8 The Northwest Laborers-Employers Training Trust

9 27055 Ohio Ave.

10 Kingston, WA 98346

11 (360) 297-3035

12 <https://www.nwlett.edu>

13

14 Evergreen Safety Council

15 12545 135th Ave. NE

16 Kirkland, WA 98034-8709

17 1-800-521-0778

18 <https://www.esc.org>

19

20 The American Traffic Safety Services Association

21 15 Riverside Parkway, Suite 100

22 Fredericksburg, Virginia 22406-1022

23 Training Dept. Toll Free (877) 642-4637

24 Phone: (540) 368-1701

25 <https://altssa.com/training>

26

27 Integrity Safety

28 13912 NE 20th Ave.

29 Vancouver, WA 98686

30 (360) 574-6071

31 <https://www.integritysafety.com>

32

33 US Safety Alliance

34 (904) 705-5660

35 <https://www.ussafetyalliance.com>

36

37 K&D Services Inc.

38 2719 Rockefeller Ave.

39 Everett, WA 98201

40 (800) 343-4049

41 <https://www.kndservices.nethttps://www.ussafetyalliance.com/>

42

SPECIAL PROVISIONS - Continued

1 **1-10.2(2) Traffic Control Plans**

2

3 The first sentence of Section 1-10.2(2) is replaced with the following:

4

5 (*****)

6 Traffic control plans and Construction Staging Plans have not been provided
7 by the Owner. The Contractor shall prepare Traffic Control Plans and
8 Construction Staging Plans. Traffic control plans and Construction Staging
9 Plans shall be prepared based on the requirements set forth in
10 Sections 1-07.23 and 1-10.1 of these Special Provisions. Preparation of the
11 Traffic Control Plan and Construction Staging Plans shall be included in
12 other items of work contained in the proposal.

13

14 **1-10.4 Measurement**

15

16 **1-10.4(1) Lump Sum Bid for Project (No Unit Items)**

17

18 Section 1-10.4(1) is supplemented with the following:

19

20 (*****)

21 The bid Proposal contains the lump sum bid item “Project Temporary Traffic
22 Control”. The provisions of Section 1-10.4(1) apply.

23

24 **1-10.5 Payment**

25

26 **1-10.5(1) Lump Sum Bid for Project (No Unit Items)**

27

28 Section 1-10.5(1) is supplemented with the following:

29

30 (*****)

31 The lump sum bid for “Project Temporary Traffic Control”, shall also include
32 all costs associated with preparing and receiving approval for the Traffic
33 Control Plans and Construction Staging Plans, including all revisions and
34 updates necessary throughout the duration of the project. The lump sum
35 cost also includes all payment for obtaining and maintaining traffic control
36 permits.

37

END OF DIVISION 1

38

SPECIAL PROVISIONS - Continued

1

2

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5

1 **DIVISION 2**

2
3 **EARTHWORK**

4 **2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP**

5
6 **2-01.1 Description**

7
8 Section 2-01.1 is supplemented with the following:

9
10 (*****)

11 Clearing and grubbing on this project shall be performed to the limits shown
12 on the Plans:

13
14 The Contractor shall coordinate with the Contracting Agency to protect and
15 leave in place those trees, landscaping, or other items specifically identified
16 to be saved. Where such is required, the Contractor shall flag those trees,
17 shrubs, etc., to identify to his workforce their need to be saved.

18
19 If the Contractor removes or damages any existing vegetation, or
20 landscaping item not designated for removal because of any act, omission,
21 neglect or misconduct in the execution of the work, such items shall be
22 restored or replaced in kind by the Contractor to a condition similar or equal
23 to that existing before such damage or removal occurred.

24
25 Clearing and grubbing shall include the removal and disposal of all trees or
26 vegetation within the project area or as required for installation of the
27 improvements. Such operations shall be limited to only those items that
28 must be removed for the project construction; vegetation and trees not
29 affected by the construction shall not be removed or damaged.

30
31 Miscellaneous small items requiring removal have not been shown on the
32 Plans

33
34 **2-01.4 Measurement**

35
36 Section 2-01.4 shall be replaced with the following:

37
38 (*****)

39 No separate measurement for payment will be made for routine cleanup,
40 but instead routine cleanup will be included in the lump sum price for
41 "Removal of Structures and Obstructions".
42

SPECIAL PROVISIONS - Continued

1 **2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

2
3 **2-02.3 Construction Requirements**

4
5 Section 2-02.3 is supplemented with the following:

6
7 (*****)

8 Voids left by the removal of items listed above shall be filled with crushed
9 surfacing base course, and compacted to 95 percent of maximum density
10 as specified in Section 2-03.3(14)C, Method C.

11
12 **2-02.5 Payment**

13
14 Section 2-02.5 is supplemented with the following:

15
16 (*****)

17 “Removing Drainage Structure”, per each.

18
19 The unit contract price bid per each for “Removing Drainage Structure” shall
20 be full compensation for all labor, tools, equipment, and incidentals required
21 to perform the work, to include, but not limited to, removing, loading, waste
22 hauling, and any and all dump fees.

23
24 “Removing Storm Sewer Pipe”, per linear foot.

25
26 The unit contract price bid per linear foot for “Removing Storm Sewer Pipe”
27 shall be full compensation for all labor, tools, equipment, and incidentals,
28 required to perform the work, to include, but not limited to, excavation,
29 removing, loading, waste hauling, and any and all dump fees.

30
31 **2-03 ROADWAY EXCAVATION AND EMBANKMENT**

32
33 **2-03.1 Description**

34
35 Section 2-03.1 shall be supplemented with the following:

36
37 (*****)

38 This work shall consist of all work defined under routine cleaning and
39 removing or relocating items noted in this section of the Special Provisions
40 and shown on the Plans.

41
42 In general, the Contractor shall remove and replace existing items that are
43 in conflict with the new improvements, as noted above, and/or shown on the
44 Plans.

SPECIAL PROVISIONS - Continued

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Any pavement, sidewalk, or curb and gutter that is damaged, and not designated for removal as shown on the Plans or preapproved by the Contracting Agency, shall be repaired or replaced entirely at the Contractor's expense. The width and location of cuts shall be preapproved by the Engineer before cutting of pavement, sidewalk, or curb and gutter.

Wheel cutting or jack hammering will not be considered an acceptable means of pavement, sidewalk, or curb and gutter "cutting," unless preapproved by the Engineer. However, even if preapproved as a method of cutting, or if the Engineer directs the Contractor to utilize this method of cutting, no payment will be made for this type of work; but rather, it shall be considered included with the project, and as such, included in the various unit prices bid in the Proposal.

Specific items and materials removed by the Contractor shall remain the property of the Tulalip Tribes. These items are identified on the Plans or within these Special Provisions and shall be delivered to the Tulalip Tribes. All other materials removed shall become the property of the Contractor and shall be disposed of at a Contractor-provided waste site meeting the requirements of Section 2-03.3(7) to be obtained and paid for by the Contractor.

2-03.3 Construction Requirements

Section 2-03.3 is supplemented with the following:

(*****)

Any loose soil should be compacted to a firm and unyielding condition and at least to 95 percent of the modified Proctor maximum dry density per ASTM D1557. Any areas that are identified as being soft or yielding during subgrade evaluation should be over-excavated to a firm and unyielding condition, or to the depth determined by the Engineer, and included in the Unsuitable Foundation Excavation, including Haul bid item. Where over-excavation is performed below a structure, the over-excavation area should extend beyond the outside of the footing a distance equal to the depth of the over-excavation below the footing.

In areas of unsuitable foundation excavation, woven geosynthetic fabric such as TenCate® RS380i or approved equivalent shall be used to provide reinforcement, filtration, separation and confinement. The over-excavated area below the roadway shall be backfilled with crushed surfacing base course.

SPECIAL PROVISIONS - Continued

1 Contractor will be directed to expose the location of the subject utility
2 (pothole). When potholing is required by the Tribes, the Contractor shall
3 expose the location of the existing utility and record the size of pipe and
4 horizontal and vertical location on the Contractor's record drawings. Upon
5 receipt of this information, the Engineer will determine if a conflict exists.
6 The Tribes will notify the Contractor within 7 full working days as to what
7 design modifications, if any, are required to resolve the conflict. Exposure
8 of utilities by potholing prior to approval by the Tulalip Tribes shall be
9 considered at the convenience of the Contractor and no payment will be
10 made.

11 12 **2-03.4 Measurement**

13
14 Section 2-03.4 is supplemented with the following:

15
16 (*****)

17 No separate measurement will be made for saw cutting of any kind.

18
19 Measurement for "Potholing" will be per each identified and approved
20 location. Multiple exposures within 10 feet of each approved location shall
21 be counted as one pothole regardless of the number of utilities exposed at
22 that location.

23
24 Measurement of unsuitable foundation excavation incl. haul will be made
25 under the bid item "Roadway Excavation Incl. Haul" when included in the
26 proposal. Because the amount of such excavation is unknown, a quantity
27 has been estimated and included in the proposal based on the geotechnical
28 investigation and report to provide a common bid base. The unit price
29 submitted for "Roadway Excavation Incl. Haul" shall be used for all such
30 excavation.

31 32 **2-03.5 Payment**

33
34 Section 2-03.5 is supplemented with the following:

35
36 (*****)

37 No payment will be made for pavement cutting on the project. All costs for
38 pavement cutting shall be included in the bid item for "Roadway Excavation
39 Incl. Haul".

40
41 Payment for unsuitable foundation excavation incl. haul will be paid for
42 under the bid item "Roadway Excavation Incl. Haul" and shall be full
43 compensation for the cost of all labor, tools, equipment, and materials
44 necessary to remove, load, haul, and dispose of the unsuitable material off-

SPECIAL PROVISIONS - Continued

1 site at a Contractor-obtained legal disposal site. The unit bid price shall also
2 include all costs associated with furnishing, hauling, placing, and
3 compacting the material specified to replace the unsuitable material
4 including geotextile for separation.

5
6 "Potholing," per each.
7

8 The unit contract price per each for "Potholing" shall be full compensation
9 for all costs incurred by the Contractor in excavating, vactoring, measuring,
10 recording depth of cover, type of material, diameter of pipe/conduit,
11 recording the station and offset of the pothole and submitting this
12 information to the Contracting Agency, and backfilling pothole locations
13 where shown on the Plans or directed by the Contracting Agency.

14 **2-04 HAUL**

15 16 **2-04.5 Payment**

17
18 Section 2-04.5 is supplemented with the following:

19
20 (*****)

21 All costs associated with hauling materials of any description to, from, and
22 within the project site shall be included in the appropriate unit bid prices in
23 the Proposal and no further compensation will be paid.

24 **2-07 WATERING**

25 26 **2-07.3 Construction Requirements**

27
28 Section 2-07.3 is supplemented with the following:

29
30 (*****)

31 During construction, the Contractor shall have dedicated to the project, a
32 suitable water truck that shall be operated as necessary to control dust.
33 Failure to have a water truck immediately accessible to the job, and failure
34 to use said water truck for dust control, shall be adequate reason to "shut
35 down" the project construction. Such shutdown is herein agreed to upon
36 submitting a Bid for this project. Shutdowns due to the Contractor's failure
37 to control dust shall not be considered as unworkable days.

38
39 The Contractor shall make necessary arrangements and shall bear the
40 costs for water necessary for the performance of the work.
41

SPECIAL PROVISIONS - Continued

1 Water placement includes that required for dust control while excavating for
2 the installation of the utilities, for processing and compacting the subgrade,
3 and for dust control between the time of subgrade preparation and the
4 placing of asphalt. Dust control water shall be applied as directed by the
5 Engineer or the Project Inspector and for such period of time as he deems
6 necessary.

7

8 **2-07.5 Payment**

9

10 Section 2-07.5 is replaced with the following:

11

12 (*****)

13 No additional payment shall be made for watering. All costs incurred for
14 this item shall be included in the other related bid items.

15 **2-09 STRUCTURE EXCAVATION**

16

17 **2-09.3 Construction Requirements**

18

19 Section 2-09.3 is supplemented with the following:

20

21 (*****)

22 Shoring shall be constructed with provisions made to allow the Inspector to
23 enter the shored trench at any time.

24

25 **2-09.3(1) General Requirements**

26

27 Section 2-09.3(1) is supplemented with the following:

28

29 (*****)

30 Excavation required for this project shall be performed in compliance with
31 the applicable requirements of Section 7-08.3(1) "Excavation and
32 Preparation of Trench."

33

34 All "normal trench dewatering" work associated with maintaining a trench
35 suitable for pipeline construction will be included in the other items of work.
36 "Normal trench dewatering" is defined as dewatering methods occurring in
37 or directly adjacent to the trench, including trash pumps, sump pumps, or
38 other methods in excavated areas. Normal trench dewatering does not
39 include a dewatering system such as well points, well screens, or deep
40 wells.

41

SPECIAL PROVISIONS - Continued

1 **2-09.3(1)D Disposal of Excavated Material**

2

3 Section 2-09.3(1)D is supplemented with the following:

4

5 (*****)

6 All unsuitable material removed as structure excavation shall be disposed
7 of offsite at a legal disposal site.

8

9 Add the following new section:

10

11 (*****)

12

13 **2-09.3(1)G Trench Dewatering**

New Section

14 **2-09.3(1)G1 General**

15

16 The Contractor shall permit, design, install, operate, and maintain
17 dewatering systems to control groundwater beneath the site, facilitate
18 construction, and to remove, treat, and handle groundwater. It is anticipated
19 that utility and pipe construction will require a dewatering system with wells,
20 well points, sump pumps or other means selected by the Contractor as part
21 of a Groundwater Control Plan prepared and submitted under this section.
22 The Contractor has full design/build responsibility for all investigation of the
23 subsurface conditions and selecting the means and methods of controlling
24 groundwater on this Project.

25

26 The Contractor shall dewater utility and pipe trenches and structure
27 excavations in accordance with the requirements of the Contract
28 Documents. All open excavations require construction dewatering and/or
29 depressurization. The range in permeability varies by orders of magnitude.
30 Dewatering systems shall accommodate the extreme variation in
31 subsurface water conditions.

32

33 The Contractor shall take all necessary measures to divert surface flows
34 away from excavations through culverts or other means. The Contractor
35 shall secure all necessary permits to complete the requirements of this
36 section.

37

38 Preliminary information on subsurface water at the site is provided in a
39 Geotechnical Data Report (GDR) found in Appendix A. This information
40 may or may not accurately depict the actual groundwater conditions at or
41 around the time of construction. Consistent with its design/build
42 responsibility, Contractor, its dewatering design engineer/hydrogeologist,
43 and/or specialist dewatering subcontractor shall independently investigate

SPECIAL PROVISIONS - Continued

1 and verify the subsurface groundwater information provided in the
2 Geotechnical Data Report, especially with regard to the potential for
3 moderate to high groundwater inflows with soft and/or highly permeable
4 soils in all areas of the Project. Accordingly, the Contractor shall expect to
5 have to dewater the full length and depth of the open cut portions of the
6 pipeline alignment and all costs incurred by Contractor to permit, design,
7 install, operate, and maintain dewatering systems to control groundwater
8 beneath the site are included in the Contract Unit Price.

9
10 Because the number, depth, and location of wells, well points, pumped
11 wells, or other means selected by the Contractor will depend on additional
12 testing to be conducted by the Contractor, this section requires the
13 Contractor to submit a detailed Groundwater Control Plan and operational
14 schedule prior to commencement of installation of the dewatering system.

15
16 The term, "groundwater," as used herein means water that is found in
17 saturated soils, sediments, and/or rocks below the surface of the ground
18 and which flows in response to artesian pressure, gravitational, tidal, or
19 other forces.

20
21 The term dewatering as used herein means removal and/or
22 lowering/depressurization of groundwater within the subsurface soil profile
23 to levels below the bottom of an excavation or trench as specified in this
24 section.

25 The term, "dewatering system," as used herein means a system of wells,
26 well points, sumps, pumps, or other methods selected by the Contractor to
27 remove and/or lower the groundwater adequately to permit safe and dry
28 working conditions, excavation stability, and maintenance of groundwater
29 at levels below the bottom of an excavation or trench as specified in this
30 section.

31 **2-09.3(1)G2 Contractor Submittals**

32
33 At least 20 working days prior to installation of any dewatering system, the
34 Contractor shall submit a detailed Groundwater Control Plan and operation
35 schedule (Groundwater Control Plan) for dewatering of excavations. The
36 Groundwater Control Plan shall be prepared, signed, and stamped by a
37 professional engineer or licensed hydrogeologist who will be responsible for
38 the design of the dewatering system. Such engineer or hydrogeologist shall
39 have a minimum of five years of experience in the design of dewatering
40 systems and shall be currently registered in the State of Washington as a
41 licensed hydrogeologist or professional engineer. The engineer or
42 hydrogeologist that designs the dewatering system shall demonstrate

SPECIAL PROVISIONS - Continued

1 experience in the design and implementation of construction dewatering
2 including pumped wells, vacuum well points, and depressurization wells. A
3 summary of the engineer's or hydrogeologist's experience shall be included
4 in the Groundwater Control Plan. The Groundwater Control Plan shall
5 identify how the Contractor will manage the rate of dewatering so as to
6 prevent settlement.

7
8 The Geotechnical Data Report in the appendices provides preliminary
9 information regarding soil and groundwater conditions encountered during
10 explorations. Such information may or may not accurately depict the actual
11 subsurface conditions existing at or around the time of construction. The
12 Groundwater Control Plan submitted by the Contractor shall be based on
13 the Contractor's independent investigation and verification of the
14 subsurface conditions existing at the time of construction. The Contractor
15 shall rely on its own independent investigation and verification of the
16 subsurface conditions at the site in developing its Groundwater Control
17 Plan. The submitted Groundwater Control Plan shall show the number,
18 location, and depth of all dewatering wells, depressurization wells, well
19 points, or other means selected by Contractor, complete with unique
20 identifying reference numbers.

21
22 The Contractor shall be required to demonstrate performance and
23 effectiveness of the proposed dewatering system and verify that adequate
24 equipment, personnel, and materials are provided to dewater the
25 excavations and to test the quantity and quality of discharge water at all
26 locations and times.

27
28 The Groundwater Control Plan shall include the installation of observation
29 wells and piezometers sufficient in number, location, and depth to provide
30 monitoring information on the performance and effectiveness of the
31 dewatering system. The Groundwater Control Plan shall show the locations
32 and screen depths of groundwater observation wells. The Groundwater
33 Control Plan shall include a monitoring plan that will prescribe the frequency
34 and manner of monitoring, including both manual and automated
35 measurement of water levels by the Contractor, and the timely and regular
36 submittal of this data in electronic form to the Engineer.

37
38 The Contractor's Groundwater Control Plan is subject to review by the
39 Engineer. Such review is limited to determining general conformance with
40 the intent of this specification, but not for detailed verification of well sizes,
41 spacing, construction, or adequacy of the planned dewatering. Engineer's
42 review and/or lack of objection to and/or approval of the submitted
43 Groundwater Control Plan shall not modify the requirements of the Contract

SPECIAL PROVISIONS - Continued

1 or relieve the Contractor of its sole responsibility to control groundwater that
2 may exist or may be encountered at the site.
3

4 The Contractor shall employ the services of a specialty dewatering
5 subcontractor to provide, operate, and decommission all construction
6 dewatering facilities. A specialty dewatering subcontractor is defined as a
7 firm or an established separate division of a firm that has specialized
8 exclusively in construction dewatering for more than three (3) years and
9 includes permanent staff with at least ten (10) years of experience in
10 construction dewatering including vacuum well points, pumped wells, and
11 depressurization wells.
12

13 The Contractor shall provide product data that demonstrate the suitability of
14 the materials and equipment proposed for use in the dewatering system.
15

16 The design and implementation of the Groundwater Control Plan shall
17 prevent settlement, formation of ground “heave” and “quick” conditions or
18 “boils” during excavation. Drilling, development, and decommissioning of
19 wells shall comply with Chapter 173-160 WAC and shall be performed by a
20 licensed well driller in compliance with Chapter 173-162 WAC. Copies of all
21 Notices of Construction (“Start Cards”) and Well Construction Reports shall
22 be provided to the Engineer.
23

24 Shoring required by Section 7-08.3(1)B and the Groundwater Control Plan
25 required herein are interdependent and shall be coordinated and submitted
26 together.

27 **2-09.3(1)G3 Quality Control**

28
29 It shall be the sole responsibility of the Contractor to control the rate and
30 effect of the dewatering in such a manner as to avoid settlement,
31 subsidence, and interference with local wells, or other adverse impacts.
32 Treated water from dewatering activities shall be released at a rate which
33 does not cause erosion, local flooding, or other adverse downstream
34 affects.
35

36 All Dewatering operations shall be adequate to assure the integrity of the
37 finished Project and shall be the responsibility of the Contractor.
38

39 Where structures, facilities, or embankments exist adjacent to areas of
40 proposed dewatering, survey reference points shall be established and
41 observed at frequent intervals to detect any settlement which may develop.
42 The responsibility for conducting the dewatering operation in a manner
43 which will protect adjacent structures, facilities or embankments rests

SPECIAL PROVISIONS - Continued

1 solely with the Contractor. The cost of repairing any damage to adjacent
2 structures, facilities, embankments and restoration of said structures,
3 facilities or embankments shall be the responsibility of the Contractor.

4 **2-09.3(1)G4 Equipment**

5
6 Dewatering, where required, may include the use of pumped wells, vacuum
7 well points, sump pumps, temporary pipelines for water disposal, rock or
8 gravel placement, and other means selected by the Contractor in its sole
9 discretion.

10
11 Diversion of surface flows, where required, may include the use of culverts,
12 sandbag cofferdams, pumps, or ditches. If pumps are used to divert water
13 around the construction area, the pumps shall be adequately screened to
14 protect fish and debris from pump suction.

15 **2-09.3(1)G5 Contingency Equipment and Materials**

16
17 The Contractor shall have on site, at all times, sufficient redundant pumping
18 equipment to dewater any open sections of trench, in good working condition,
19 with spare pumps and other equipment for emergencies including, but not
20 limited to, power outage. The Contractor shall have on site, at all times,
21 competent workers for the operation and repair of the pumping equipment.
22 All equipment, piping, valves, pumps, and backup power supply shall be new
23 or in good working condition.

24 **2-09.3(1)G6 Execution**

25
26 1. General Requirements:
27 The Contractor shall permit, design, construct, operate, maintain,
28 and remove all equipment and materials to control groundwater
29 levels beneath and inside all excavations at elevations below pipe
30 invert as specified in this section. The Contractor shall determine the
31 quantity and best location for any pumped wells, vacuum well points,
32 or other means selected to achieve necessary drawdowns and
33 minimize logistical impacts to the Contractor's operations. The
34 dewatering system shall also include sumps and discharge piping to
35 collect incidental pocketed or perched groundwater not collected by
36 the pumped wells or well point systems.

37
38 Dewatering for structures and pipelines or otherwise shall
39 commence as provided for in the Groundwater Control Plan or earlier
40 if necessary to remove and/or control groundwater as required
41 herein and shall be continuous until such times as water can be

SPECIAL PROVISIONS - Continued

1 allowed to rise in accordance with the provisions of this section or
2 other requirements.

3
4 At all times, site grading shall promote drainage. Surface runoff shall
5 be diverted from excavations. Water entering the excavation from
6 surface runoff shall be collected in shallow ditches around the
7 perimeter of the excavation, drained to sumps, and be pumped or
8 drained by gravity from the excavation to maintain a bottom free from
9 standing water.

10
11 Dewatering shall at all times be conducted in such a manner as to
12 preserve the undisturbed bearing capacity of the subgrade soils at
13 proposed bottom of excavation.

14
15 If foundation soils are disturbed or loosened by the upward seepage
16 of water or an uncontrolled flow of water, the affected areas shall be
17 excavated and replaced with drain rock at no additional cost to the
18 Owner. In addition, the Contractor shall implement vacuum well
19 points or deep-well dewatering systems in those areas.

20
21 Unless the requirements of the Groundwater Control Plan are more
22 stringent, groundwater shall be lowered to a point at least 2 feet
23 below the bottom of open-cut excavation for a period of 24 hours
24 prior to the start of excavation and shall be maintained at that
25 elevation until completion of pipe or structure installation.

26
27 The Contractor shall maintain the water level below the bottom of
28 excavation in all work areas where groundwater occurs during
29 excavation construction, backfilling, and up to acceptance.

30
31 Flotation shall be prevented by the Contractor by maintaining a
32 positive and continuous removal of water. The Contractor shall be
33 fully responsible and liable for all damages which may result from
34 failure to adequately keep excavations dewatered.

35
36 If vacuum well points or pumped wells are used, these items shall be
37 spaced in accordance with the Groundwater Control Plan to provide
38 the necessary dewatering and shall be filter packed with
39 approximately graded sand and/or gravel and/or other means used
40 to prevent pumping of fine sands or silts from the subsurface. A
41 continual check by the Contractor shall be maintained to ensure that
42 the subsurface soil is not being removed by the dewatering
43 operation.

44

SPECIAL PROVISIONS - Continued

1 The Contractor shall dispose of water from the Work in a suitable
2 manner without damage to adjacent property. Contractor shall be
3 responsible for obtaining any permits that may be necessary to
4 dispose of water. No water shall be drained into work built or under
5 construction without prior consent of the Engineer. Water shall be
6 filtered using an approved method to remove sand and fine-sized soil
7 particles before disposal into any drainage system.
8

9 The release of controlled groundwater to its static level shall be
10 performed in such a manner as to maintain the undisturbed state of
11 the natural foundation soils, prevent disturbance of compacted
12 backfill and prevent flotation or movement of structures, pipelines,
13 and sewers.
14

15 Prior to the start of dewatering operation using vacuum well points or
16 pumped wells, the Contractor shall contact adjacent property owners
17 to verify the proximity of any existing shallow wells and shall
18 continuously monitor the water surface levels within each of the
19 shallow wells during the dewatering operations.
20

21 The dewatering system shall be designed for continuous, 24-hour
22 operation and shall not be shut down between shifts, on holidays, or
23 weekends, or during work stoppage, without written permission from
24 the Engineer.
25

26 The dewatering system shall be monitored continuously while in
27 operation.
28

29 The dewatering system shall include a means for measuring the
30 quantity of discharge.
31

32 The quality and quantity of discharge water from the dewatering
33 system shall be in conformance with all Federal, State, and local laws
34 and regulations.
35

36 2. Sumps:

37 Open or cased sumps shall not be used as a primary dewatering
38 method for pipeline excavations that are deeper than 1 foot below the
39 natural water table.
40

41 A. System Modifications

42 If the dewatering system does not meet the above requirements
43 as determined by the Engineer, the Contractor shall modify, add
44 to, or install additional alternative means of groundwater control

SPECIAL PROVISIONS - Continued

1 as needed, at no additional cost to the Owner. If during the course
2 of construction, the system or a part thereof becomes inoperable,
3 it shall be repaired or replaced at no additional cost to the Owner.
4

5 B. System Protection

6 Necessary precautions shall be taken, including, but not limited to,
7 marking wells and pipes, protecting pipes at vehicular crossings,
8 and routing vehicular traffic away from dewatering facilities to
9 protect the dewatering system from damage and ensure
10 continued operation.
11

12 C. Electrical Supply

13 The electrical service for dewatering shall be separate and
14 dedicated solely to the operation of the dewatering system.
15

16 D. Disposal of Water

17 Pumped water shall be disposed of in such a manner so as not
18 to cause damage to public or private property. Contractor shall be
19 responsible for obtaining any permits that may be necessary to
20 dispose of water and adhere to the requirements of those permits.
21

22 Silty water generated due to storm runoff or from trench
23 dewatering shall be managed in one of three ways as defined
24 below.

- 25 1) The water shall be filtered using an approved method or treated
26 in a sediment treatment facility. This may consist of a sediment
27 trap designed to meet the requirements of Snohomish County
28 Code Title 24 in order to remove sand and fine-sized soil
29 particles before disposal into any drainage system.
- 30 2) A second option shall be to truck the silty water from the project
31 site. This water shall be delivered to an approved sediment
32 treatment facility at another location.
- 33 3) Where the adjacent land allows, apply water by means of spray
34 irrigation to grassed or forested land down slope of and at a
35 distance no closer than 200 feet from the Work. However, no
36 project flows shall be directed off-site to any adjacent lands
37 without the written permission of the adjacent property owner(s)
38 and the Tulalip Tribes. The water shall not be applied any closer
39 than 200 feet from any stream, flowing ditch or other water
40 body. Water application shall cease at the onset of any surface
41 runoff from the application site.
42

43 If project water is applied closer than 200 feet to a water body or
44 is discharged directly to a water body, chemical treatment or

SPECIAL PROVISIONS - Continued

1 filtration shall be required, as described in, respectively, BMPs
2 C250 and C251 of the Stormwater Management Manual for
3 Western Washington (Washington Department of Ecology
4 8/2001). Chemical treatment (typically coagulation and settling)
5 would need to meet the toxicity testing, jar test, and monitoring
6 requirements stated in BMP C250. A basic requirement is that
7 treated stormwater discharge may not raise the background
8 turbidity level in any receiving stream by more than 5 NTU (or by
9 10 percent where the background turbidity is greater than 50
10 NTU). The Contractor will be required to conduct twice daily
11 monitoring of the receiving stream both upstream and downstream
12 of the inflow point from the project site in order to demonstrate that
13 the background stream turbidity is not raised by more than 5
14 NTUs. Water released into any ditch, swale, or water course shall
15 be at such a rate so as to avoid any downstream flooding or
16 channelerosion.

17
18 Pumped water shall not be disposed of in a manner which causes
19 contamination of wells in the vicinity.

20
21 Contractor shall inspect downstream portion of storm sewer
22 piping and catch basins prior to and after discharging water into
23 storm sewer system. Contractor shall measure total accumulated
24 sand deposits in each catch basin. If additional sand deposit
25 material is measured after completion of a project dewatering,
26 then Contractor shall remove all accumulated sand deposits from
27 the stormwater system.

28
29 E. Terminating Dewatering

30 The pumping equipment shall be operated just prior to complete
31 shutdown in a manner that will allow the controlled groundwater
32 level to rise gradually to its static level. The release of groundwater
33 to its static level shall be performed in such a manner as to
34 maintain the undisturbed state of the natural foundation soils,
35 prevent disturbance of compacted backfill, and prevent flotation or
36 movement of structures and pipelines.

37
38 After the dewatering system is deactivated, all vacuum well
39 points, pumped wells, sumps, and drains shall be removed and
40 the ground shall be restored to a condition better than or equal to
41 the condition prior to installation of the dewatering system.

42
43 Contractor shall be or shall employ the services of a licensed
44 water well contractor for well or well-point decommissioning. The

SPECIAL PROVISIONS - Continued

1 construction and decommissioning of all wells used in dewatering
2 systems and for monitoring shall comply with Washington State
3 Department of Ecology requirements (Chapter 173-160 WAC and
4 Chapter 18.104 RCW). Copies of all Well Decommissioning
5 Reports shall be provided to the Engineer.
6

7 Well decommissioning shall include at a minimum, pressure
8 injection of a bentonite/cement grout slurry into the void spaces
9 of the filter pack and removal of the well casings. After removing
10 the well casings, the Contractor shall top off all holes with a
11 bentonite/grout and gravel mixture. The Contractor shall ensure
12 that the bentonite or grout penetrates all of the voids in the gravel
13 pack. After decommissioning, the Contractor shall restore each
14 decommissioned well site to match the surrounding environment
15 (e.g., grass, landscape plantings, pavement concrete, unclassified
16 fill, etc.).
17

18 Streambeds and ditches shall be restored with original or
19 matching materials prior to restoring flow into the stream channel.
20 Channel slopes disturbed by dewatering or stream diversion
21 activities are to be stabilized and re-vegetated as shown on the
22 plans.
23

24 All "normal trench dewatering" work associated with maintaining
25 a trench suitable for pipeline construction will be incidental and
26 included in the other items of work. "Normal trench dewatering" is
27 defined as dewatering methods occurring in or directly adjacent
28 to the trench, including trash pumps, sump pumps, or other
29 methods in excavated areas. Normal trench dewatering does not
30 include a dewatering system such as well points, well screens, or
31 deep wells.
32

33 **2-09.3(4) Construction Requirements, Structure Excavation, Class B**
34

35 Add the following new section:
36

37 (*****)

38 **2-09.3(4)A Resolution of Utility Conflicts**

New Section

39
40 In the event that a conflict arises between the proposed improvements and
41 an existing utility, the Resolution of Utility Conflicts item will compensate the
42 Contractor for standby time and additional work in the following manner:
43

SPECIAL PROVISIONS - Continued

1 Standby time resulting from existing utility conflicts. Standby time is defined
2 as time the Contractor is unable to proceed with progression of a specific
3 work item (i.e. storm drainage, underground utility installation etc.) due to
4 conflicts with existing facilities. However, payment for standby time shall be
5 limited to:

6
7 For each agreed upon conflict, a maximum of four (4) hours of standby
8 time will be paid for actual delay of labor and equipment due to a utility
9 conflict. The Contractor shall be responsible to adjust his work schedule
10 and/or reassign his work forces and equipment to other areas of work to
11 minimize standby time.

12
13 If the conflict is resolved within one (1) hour of notification to the
14 Engineer, no standby time will be paid.

15
16 Additional work required to resolve utility conflicts will be paid for at the bid
17 unit prices for the associated work. Work that can be measured and paid for
18 at the unit contract prices shall not be identified as force account work. This
19 work includes but is not limited to:

- 20
21 1. Storm drainage manhole, pipe, vault, and conduit realignments of
22 line and/or grade for the storm drain to avoid existing utility conflicts.
23 2. Additional storm drainage manholes, pipe, vaults, and conduit
24 required by a change in alignment, and/or grade, not exceeding the
25 limits set in Section 1-04.4 of the Standard Specifications.
26 3. Underdrains for realignments of line and/or grade to avoid existing
27 utility conflicts.

28 **2-09.4 Measurement**

29
30 Section 2-09.4 is supplemented with the following:

31
32 (*****)

33 No measurement will be made for any class of structure excavation.

34
35 Measurement for "Dewatering" will be made by lump sum.

36 **2-09.5 Payment**

37
38 Section 2-09.5 is supplemented with the following:

39
40 (*****)

41 "Dewatering", per lump sum.
42

SPECIAL PROVISIONS - Continued

1 Payment for “Dewatering” shall be made at the lump sum price named in
2 the Bid Schedule, which price shall be complete compensation for all labor,
3 equipment, materials, planning, design, engineering calculations,
4 submittals, furnishing, constructing and removing of wells, pipes, valves,
5 pumps, electrical systems, discharge devices and all other work necessary
6 for an effective dewatering system (located outside of the trench shoring
7 system) in accordance with the Contract Documents.

8
9 “Resolution of Utility Conflicts”, per force account.

10
11 Payment for “Resolution of Utility Conflicts” shall be made by force account
12 as provided in Section 1-09.6. Utility conflicts due to the Contractor’s actions
13 or operations shall be resolved by the Contractor at no expense to the
14 Contracting Agency. To provide a common proposal for all bidders, the
15 Contracting Agency has entered an amount in the proposal for “Resolution
16 of Utility Conflicts” to become a part of the total bid by the Contractor.

17 **2-11 TRIMMING AND CLEANUP**

18 19 **2-11.1 Description**

20
21 Section 2-11.1 is supplemented with the following:

22
23 (*****)
24 During construction, and then upon completion of the work, the Contractor
25 shall thoroughly comb and search the surrounding area and remove any
26 construction material thrown or discarded amongst the trees, bushes,
27 ditches, etc., such as paint cans, cartons, broken pipe, pavement pieces,
28 paper, bottles, etc., and shall tidy up the surrounding general area to make
29 it neat in appearance, including removal of debris that may or may not have
30 been deposited by Contractor’s operation.

31
32 Paved street surfaces, existing and new, shall be thoroughly cleaned (street
33 sweeper) upon completion of work within the area, and shall require daily
34 cleaning if dust or mud exists. Prior to job acceptance, all streets shall be
35 cleaned.

36
37 Prior to final inspection, remove from the job site, all tools, surplus materials,
38 equipment, scrap, debris, and waste.

39

SPECIAL PROVISIONS - Continued

1 **2-11.5 Payment**

2

3 Section 2-11.5 is supplemented with the following:

4

5 (*****)

6 No separate payment will be made for trimming and cleanup, but instead
7 will be included in the other bid items included in the Proposal.

8

END OF DIVISION 2

1 **DIVISION 5**

2

3 **SURFACE TREATMENTS AND PAVEMENTS**

4 **5-04 HOT MIX ASPHALT**

5 (July 18, 2018 APWA GSP, including project-specific modifications)

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 plant-

13 mixed hot mix asphalt (HMA) on a prepared foundation or base in

14 accordance with these Specifications and the lines, grades, thicknesses,

15 and typical cross-sections shown in the Plans. The manufacture of HMA

16 may include warm mix asphalt (WMA) processes in accordance with these

17 Specifications. WMA processes include organic additives, chemical

18 additives, and foaming.

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

28	Asphalt Binder	9-02.1(4)
29	Cationic Emulsified Asphalt	9-02.1(6)
30	Anti-Stripping Additive	9-02.4
31	HMA Additive	9-02.5
32	Aggregates	9-03.8
33	Recycled Asphalt Pavement	9-03.8(3)B
34	Mineral Filler	9-03.8(5)
35	Recycled Material	9-03.21
36	Portland Cement	9-01
37	Sand	9-03.1(2)
38		(As noted in 5-04.3(5)C for crack
39		sealing)
40	Joint Sealant	9-04.2
41	Foam Backer Rod	9-04.2(3)A

42

SPECIAL PROVISIONS - Continued

1 The Contract documents may establish that the various mineral materials
2 required for the manufacture of HMA will be furnished in whole or in part by
3 the Contracting Agency. If the documents do not establish the furnishing of
4 any of these mineral materials by the Contracting Agency, the Contractor
5 shall be required to furnish such materials in the amounts required for the
6 designated mix. Mineral materials include coarse and fine aggregates, and
7 mineral filler.

8
9 The Contractor may choose to utilize recycled asphalt pavement (RAP) in
10 the production of HMA. The RAP may be from pavements removed under
11 the Contract, if any, or pavement material from an existing stockpile.

12
13 The Contractor may use up to 20 percent RAP by total weight of HMA with
14 no additional sampling or testing of the RAP. The RAP shall be sampled and
15 tested at a frequency of one sample for every 1,000 tons produced and not
16 less than ten samples per project. The asphalt content and gradation test
17 data shall be reported to the Contracting Agency when submitting the mix
18 design for approval on the QPL. The Contractor shall include the RAP as
19 part of the mix design as defined in these Specifications.

20
21 The grade of asphalt binder shall be as required by the Contract. Blending
22 of asphalt binder from different sources is not permitted.

23
24 The Contractor may only use warm mix asphalt (WMA) processes in the
25 production of HMA with 20 percent or less RAP by total weight of HMA. The
26 Contractor shall submit to the Engineer for approval the process that is
27 proposed and how it will be used in the manufacture of HMA.

28
29 Production of aggregates shall comply with the requirements of
30 Section 3-01.

31
32 Preparation of stockpile site, the stockpiling of aggregates, and the removal
33 of aggregates from stockpiles shall comply with the requirements of
34 Section 3-02.

35 36 **5-04.2(1) How to Get an HMA Mix Design on the QPL**

37
38 If the contractor wishes to submit a mix design for inclusion in the Qualified
39 Products List (QPL), please follow the WSDOT process outlined in Standard
40 Specification 5-04.2(1).

41 42 **5-04.2(1)A Vacant**

43

1 **5-04.2(2) Mix Design – Obtaining Project Approval**

2
3 No paving shall begin prior to the approval of the mix design by the
4 Engineer.

5
6 **Nonstatistical** evaluation will be used for all HMA not designated as
7 Commercial HMA in the contract documents.

8
9 **Commercial** evaluation will be used for Commercial HMA and for other
10 classes of HMA in the following applications: sidewalks, road approaches,
11 ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other
12 nonstructural applications of HMA accepted by commercial evaluation shall
13 be as approved by the Project Engineer. Sampling and testing of HMA
14 accepted by commercial evaluation will be at the option of the Project
15 Engineer. The Proposal quantity of HMA that is accepted by commercial
16 evaluation will be excluded from the quantities used in the determination of
17 nonstatistical evaluation.

18
19 **Nonstatistical Mix Design.** Fifteen days prior to the first day of paving the
20 contractor shall provide one of the following mix design verification
21 certifications for Contracting Agency review;

- 22
23 • The WSDOT Mix Design Evaluation Report from the current WSDOT
24 QPL, or one of the mix design verification certifications listed below.
25
26 • The proposed HMA mix design on WSDOT Form 350-042 with the
27 seal and certification (stamp & sig-nature) of a valid licensed
28 Washington State Professional Engineer.
29
30 • The Mix Design Report for the proposed HMA mix design developed
31 by a qualified City or County laboratory that is within one year of the
32 approval date.

33
34 The mix design shall be performed by a lab accredited by a national
35 authority such as Laboratory Accreditation Bureau, L-A-B for Construction
36 Materials Testing, The Construction Materials Engineering Council
37 (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall
38 supply evidence of participation in the AASHTO: resource proficiency
39 sample program.

40
41 Mix designs for HMA accepted by Nonstatistical evaluation shall;

- 42
43 • Have the aggregate structure and asphalt binder content determined
44 in accordance with WSDOT Standard Operating Procedure 732 and

SPECIAL PROVISIONS - Continued

1 meet the requirements of Sections 9-03.8(2), except that Hamburg
2 testing for ruts and stripping are at the discretion of the Engineer, and
3 9-03.8(6).
4

- 5 • Have anti-strip requirements, if any, for the proposed mix design
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

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

22 For the Bid Item Commercial HMA, the Contractor shall select a class of
23 HMA and design level of Equivalent Single Axle Loads (ESAL’s) appropriate
24 for the required use.
25

5-04.2(2)B Using Warm Mix Asphalt Processes

26
27

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
- 36 • Before using additives, obtain the Engineer’s approval using
37 WSDOT Form 350-076 to describe the proposed additive and
38 process.
39

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

SPECIAL PROVISIONS - Continued

1 included in the unit Contract prices for the various Bid items involved in the
2 Contract.

3
4 **5-04.3(3) Equipment**

5
6 **5-04.3(3)A Mixing Plant**

7
8 Plants used for the preparation of HMA shall conform to the following
9 requirements:

- 10
11 1. **Equipment for Preparation of Asphalt Binder** – Tanks for the
12 storage of asphalt binder shall be equipped to heat and hold the
13 material at the required temperatures. The heating shall be
14 accomplished by steam coils, electricity, or other approved means
15 so that no flame shall be in contact with the storage tank. The
16 circulating system for the asphalt binder shall be designed to ensure
17 proper and continuous circulation during the operating period. A
18 valve for the purpose of sampling the asphalt binder shall be placed
19 in either the storage tank or in the supply line to the mixer.
20
21 2. **Thermometric Equipment** – An armored thermometer, capable of
22 detecting temperature ranges expected in the HMA mix, shall be
23 fixed in the asphalt binder feed line at a location near the charging
24 valve at the mixer unit. The thermometer location shall be convenient
25 and safe for access by Inspectors. The plant shall also be equipped
26 with an approved dial-scale thermometer, a mercury actuated
27 thermometer, an electric pyrometer, or another approved
28 thermometric instrument placed at the discharge chute of the drier to
29 automatically register or indicate the temperature of the heated
30 aggregates. This device shall be in full view of the plant operator.
31
32 3. **Heating of Asphalt Binder** – The temperature of the asphalt binder
33 shall not exceed the maximum recommended by the asphalt binder
34 manufacturer nor shall it be below the minimum temperature
35 required to maintain the asphalt binder in a homogeneous state. The
36 asphalt binder shall be heated in a manner that will avoid local
37 variations in heating. The heating method shall provide a continuous
38 supply of asphalt binder to the mixer at a uniform average
39 temperature with no individual variations exceeding 25°F. Also, when
40 a WMA additive is included in the asphalt binder, the temperature of
41 the asphalt binder shall not exceed the maximum recommended by
42 the manufacturer of the WMA additive.
43

SPECIAL PROVISIONS - Continued

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:

- 11
12 a. A mechanical sampling device attached to the HMA plant.
13
14 b. Platforms or devices to enable sampling from the hauling
15 vehicle without entering the hauling vehicle.

16
17 **5-04.3(3)B Hauling Equipment**

18
19 Trucks used for hauling HMA shall have tight, clean, smooth metal beds and
20 shall have a cover of canvas or other suitable material of sufficient size to
21 protect the mixture from adverse weather. Whenever the weather conditions
22 during the work shift include, or are forecast to include, precipitation or an
23 air temperature less than 45°F or when time from loading to unloading
24 exceeds 30 minutes, the cover shall be securely attached to protect the
25 HMA.

26
27 The contractor shall provide an environmentally benign means to prevent
28 the HMA mixture from adhering to the hauling equipment. Excess release
29 agent shall be drained prior to filling hauling equipment with HMA.
30 Petroleum derivatives or other coating material that contaminate or alter the
31 characteristics of the HMA shall not be used. For live bed trucks, the
32 conveyer shall be in operation during the process of applying the release
33 agent.

34
35 **5-04.3(3)C Pavers**

36
37 HMA pavers shall be self-contained, power-propelled units, provided with
38 an internally heated vibratory screed and shall be capable of spreading and
39 finishing courses of HMA plant mix material in lane widths required by the
40 paving section shown in the Plans.

41
42 The HMA paver shall be in good condition and shall have the most current
43 equipment available from the manufacturer for the prevention of
44 segregation of the HMA mixture installed, in good condition, and in working

SPECIAL PROVISIONS - Continued

1 order. The equipment certification shall list the make, model, and year of the
2 paver and any equipment that has been retrofitted.
3

4 The screed shall be operated in accordance with the manufacturer's
5 recommendations and shall effectively produce a finished surface of the
6 required evenness and texture without tearing, shoving, segregating, or
7 gouging the mixture. A copy of the manufacturer's recommendations shall
8 be provided upon request by the Contracting Agency. Extensions will be
9 allowed provided they produce the same results, including ride, density, and
10 surface texture as obtained by the primary screed. Extensions without
11 augers and an internally heated vibratory screed shall not be used in the
12 Traveled Way.
13

14 When specified in the Contract, reference lines for vertical control will be
15 required. Lines shall be placed on both outer edges of the Traveled Way of
16 each Roadway. Horizontal control utilizing the reference line will be
17 permitted. The grade and slope for intermediate lanes shall be controlled
18 automatically from reference lines or by means of a mat referencing device
19 and a slope control device. When the finish of the grade prepared for paving
20 is superior to the established tolerances and when, in the opinion of the
21 Engineer, further improvement to the line, grade, cross-section, and
22 smoothness can best be achieved without the use of the reference line, a
23 mat referencing device may be substituted for the reference line.
24 Substitution of the device will be subject to the continued approval of the
25 Engineer. A joint matcher may be used subject to the approval of the
26 Engineer. The reference line may be removed after the completion of the
27 first course of HMA when approved by the Engineer. Whenever the
28 Engineer determines that any of these methods are failing to provide the
29 necessary vertical control, the reference lines will be reinstalled by the
30 Contractor.
31

32 The Contractor shall furnish and install all pins, brackets, tensioning
33 devices, wire, and accessories necessary for satisfactory operation of the
34 automatic control equipment.
35

36 If the paving machine in use is not providing the required finish, the
37 Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or
38 solvent type liquids spilled on the pavement shall be thoroughly removed
39 before paving proceeds.
40

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

41
42
43 A Material Transfer Device/Vehicle (MTD/V) shall only be used with the
44 Engineer's approval, unless other-wise required by the contract.

SPECIAL PROVISIONS - Continued

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Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash.

SPECIAL PROVISIONS - Continued

1 Operation of the roller shall be in accordance with the manufacturer's
2 recommendations. When ordered by the Engineer for any roller planned for
3 use on the project, the Contractor shall provide a copy of the manufacturer's
4 recommendation for the use of that roller for compaction of HMA. The
5 number and weight of rollers shall be sufficient to compact the mixture in
6 compliance with the requirements of Section 5-04.3(10). The use of
7 equipment that results in crushing of the aggregate will not be permitted.
8 Rollers producing pickup, washboard, uneven compaction of the surface,
9 displacement of the mixture or other undesirable results shall not be used.

10 11 **5-04.3(4) Preparation of Existing Paved Surfaces**

12
13 When the surface of the existing pavement or old base is irregular, the
14 Contractor shall bring it to a uniform grade and cross-section as shown on
15 the Plans or approved by the Engineer.

16
17 Preleveling of uneven or broken surfaces over which HMA is to be placed
18 may be accomplished by using an asphalt paver, a motor patrol grader, or
19 by hand raking, as approved by the Engineer.

20
21 Compaction of preleveling HMA shall be to the satisfaction of the Engineer
22 and may require the use of small steel wheel rollers, plate compactors, or
23 pneumatic rollers to avoid bridging across preleveled areas by the
24 compaction equipment. Equipment used for the compaction of preleveling
25 HMA shall be approved by the Engineer.

26
27 Before construction of HMA on an existing paved surface, the entire surface
28 of the pavement shall be clean. All fatty asphalt patches, grease drippings,
29 and other objectionable matter shall be entirely removed from the existing
30 pavement. All pavements or bituminous surfaces shall be thoroughly
31 cleaned of dust, soil, pavement grindings, and other foreign matter. All holes
32 and small depressions shall be filled with an appropriate class of HMA. The
33 surface of the patched area shall be leveled and compacted thoroughly.
34 Prior to the application of tack coat, or paving, the condition of the surface
35 shall be approved by the Engineer.

36
37 A tack coat of asphalt shall be applied to all paved surfaces on which any
38 course of HMA is to be placed or abutted; except that tack coat may be
39 omitted from clean, newly paved surfaces at the discretion of the Engineer.
40 Tack coat shall be uniformly applied to cover the existing pavement with a
41 thin film of residual asphalt free of streaks and bare spots at a rate between
42 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of
43 application shall be approved by the Engineer. A heavy application of tack
44 coat shall be applied to all joints. For Roadways open to traffic, the

SPECIAL PROVISIONS - Continued

1 application of tack coat shall be limited to surfaces that will be paved during
2 the same working shift. The spreading equipment shall be equipped with a
3 thermometer to indicate the temperature of the tack coat material.

4
5 Equipment shall not operate on tacked surfaces until the tack has broken
6 and cured. If the Contractor's operation damages the tack coat it shall be
7 repaired prior to placement of the HMA.

8
9 The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1
10 and CSS-1h emulsified asphalt may be diluted once with water at a rate not
11 to exceed one part water to one part emulsified asphalt. The tack coat shall
12 have sufficient temperature such that it may be applied uniformly at the
13 specified rate of application and shall not exceed the maximum temperature
14 recommended by the emulsified asphalt manufacturer.

15 16 **5-04.3(4)A Crack Sealing**

17 18 **5-04.3(4)A1 General**

19
20 When the Proposal includes a pay item for crack sealing, seal all cracks
21 1/4 inch in width and greater.

22
23 **Cleaning:** Ensure that cracks are thoroughly clean, dry and free of all loose
24 and foreign material when filling with crack sealant material. Use a hot
25 compressed air lance to dry and warm the pavement surfaces within the
26 crack immediately prior to filling a crack with the sealant material. Do not
27 overheat pavement. Do not use direct flame dryers. Routing cracks is not
28 required.

29
30 **Sand Slurry:** For cracks that are to be filled with sand slurry, thoroughly mix
31 the components and pour the mixture into the cracks until full. Add additional
32 CSS-1 cationic emulsified asphalt to the sand slurry as needed for
33 workability to ensure the mixture will completely fill the cracks. Strike off the
34 sand slurry flush with the existing pavement surface and allow the mixture
35 to cure. Top off cracks that were not completely filled with additional sand
36 slurry. Do not place the HMA overlay until the slurry has fully cured.

37
38 The sand slurry shall consist of approximately 20 percent CSS-1 emulsified
39 asphalt, approximately 2 percent portland cement, water (if required), and
40 the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The
41 components shall be thoroughly mixed and then poured into the cracks and
42 joints until full. The following day, any cracks or joints that are not completely
43 filled shall be topped off with additional sand slurry. After the sand slurry is
44 placed, the filler shall be struck off flush with the existing pavement surface

SPECIAL PROVISIONS - Continued

1 and allowed to cure. The HMA overlay shall not be placed until the slurry
2 has fully cured. The requirements of Section 1-06 will not apply to the
3 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 **Hot Poured Sealant:** For cracks that are to be filled with hot poured sealant,
14 apply the material in accordance with these requirements and the
15 manufacturer's recommendations. Furnish a Type 1 Working Drawing of the
16 manufacturer's product information and recommendations to the Engineer
17 prior to the start of work, including the manufacturer's recommended
18 heating time and temperatures, allowable storage time and temperatures
19 after initial heating, allowable reheating criteria, and application temperature
20 range. Confine hot poured sealant material within the crack. Clean any
21 overflow of sealant from the pavement surface. If, in the opinion of the
22 Engineer, the Contractor's method of sealing the cracks with hot poured
23 sealant results in an excessive amount of material on the pavement surface,
24 stop and correct the operation to eliminate the excess material.

25
26 **5-04.3(4)A2 Crack Sealing Areas Prior to Paving**

27
28 In areas where HMA will be placed, use sand slurry to fill the cracks.

29
30 **5-04.3(4)A3 Crack Sealing Areas Not to be Paved**

31
32 In areas where HMA will not be placed, fill the cracks as follows:

33
34 A. Cracks 1/4 inch to 1 inch in width - fill with hot poured sealant.

35
36 B. Cracks greater than 1 inch in width – fill with sand slurry.

37
38 **5-04.3(4)B Vacant**

39
40 **5-04.3(4)C Pavement Repair**

41
42 The Contractor shall excavate pavement repair areas and shall backfill
43 these with HMA in accordance with the details shown in the Plans and as
44 marked in the field. The Contractor shall conduct the excavation operations

SPECIAL PROVISIONS - Continued

1 in a manner that will protect the pavement that is to remain. Pavement not
2 designated to be removed that is damaged as a result of the Contractor's
3 operations shall be repaired by the Contractor to the satisfaction of the
4 Engineer at no cost to the Contracting Agency. The Contractor shall
5 excavate only within one lane at a time unless approved otherwise by the
6 Engineer. The Contractor shall not excavate more area than can be
7 completely finished during the same shift, unless approved by the Engineer.

8
9 Unless otherwise shown in the Plans or determined by the Engineer,
10 excavate to a depth of 1.0 feet. The Engineer will make the final
11 determination of the excavation depth required. The minimum width of any
12 pavement repair area shall be 40 inches unless shown otherwise in the
13 Plans. Before any excavation, the existing pavement shall be sawcut or
14 shall be removed by a pavement grinder. Excavated materials will become
15 the property of the Contractor and shall be disposed of in a Contractor-
16 provided site off the Right of Way or used in accordance with
17 Sections 2-02.3(3) or 9-03.21.

18
19 Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A
20 heavy application of tack coat shall be applied to all surfaces of existing
21 pavement in the pavement repair area.

22
23 Placement of the HMA backfill shall be accomplished in lifts not to exceed
24 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth
25 may be accomplished with the approval of the Engineer. Each lift shall be
26 thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

27
28
29
30 Aggregates and RAP shall be stockpiled according to the requirements of
31 Section 3-02. Sufficient storage space shall be provided for each size of
32 aggregate and RAP. Materials shall be removed from stockpile(s) in a
33 manner to ensure minimal segregation when being moved to the HMA plant
34 for processing into the final mixture. Different aggregate sizes shall be kept
35 separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

36
37
38
39
40
41 After the required amount of mineral materials, asphalt binder, recycling
42 agent and anti-stripping additives have been introduced into the mixer the
43 HMA shall be mixed until complete and uniform coating of the particles and

SPECIAL PROVISIONS - Continued

1 thorough distribution of the asphalt binder throughout the mineral materials
2 is ensured.

3
4 When discharged, the temperature of the HMA shall not exceed the
5 optimum mixing temperature by more than 25°F as shown on the reference
6 mix design report or as approved by the Engineer. Also, when a WMA
7 additive is included in the manufacture of HMA, the discharge temperature
8 of the HMA shall not exceed the maximum recommended by the
9 manufacturer of the WMA additive. A maximum water content of 2 percent
10 in the mix, at discharge, will be allowed providing the water causes no
11 problems with handling, stripping, or flushing. If the water in the HMA
12 causes any of these problems, the moisture content shall be reduced as
13 directed by the Engineer.

14
15 Storing or holding of the HMA in approved storage facilities will be permitted
16 with approval of the Engineer, but in no event shall the HMA be held for
17 more than 24 hours. HMA held for more than 24 hours after mixing shall be
18 rejected. Rejected HMA shall be disposed of by the Contractor at no
19 expense to the Contracting Agency. The storage facility shall have an
20 accessible device located at the top of the cone or about the third point. The
21 device shall indicate the amount of material in storage. No HMA shall be
22 accepted from the storage facility when the HMA in storage is below the top
23 of the cone of the storage facility, except as the storage facility is being
24 emptied at the end of the working shift.

25
26 Recycled asphalt pavement (RAP) utilized in the production of HMA shall
27 be sized prior to entering the mixer so that a uniform and thoroughly mixed
28 HMA is produced. If there is evidence of the recycled asphalt pavement not
29 breaking down during the heating and mixing of the HMA, the Contractor
30 shall immediately suspend the use of the RAP until changes have been
31 approved by the Engineer. After the required amount of mineral materials,
32 RAP, new asphalt binder and asphalt rejuvenator have been introduced into
33 the mixer the HMA shall be mixed until complete and uniform coating of the
34 particles and thorough distribution of the asphalt binder throughout the
35 mineral materials, and RAP is ensured.

36 **5-04.3(7) Spreading and Finishing**

37
38
39 The mixture shall be laid upon an approved surface, spread, and struck off
40 to the grade and elevation established. HMA pavers complying with
41 Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise

SPECIAL PROVISIONS - Continued

1 directed by the Engineer, the nominal compacted depth of any layer of any
2 course shall not exceed the following:

3		
4	HMA Class 1"	0.35 feet
5	HMA Class $\frac{3}{4}$ " and HMA Class $\frac{1}{2}$ "	
6	wearing course	0.30 feet
7	other courses	0.35 feet
8	HMA Class $\frac{3}{8}$ "	0.15 feet
9		

10 On areas where irregularities or unavoidable obstacles make the use of
11 mechanical spreading and finishing equipment impractical, the paving may
12 be done with other equipment or by hand.

13
14 When more than one JMF is being utilized to produce HMA, the material
15 produced for each JMF shall be placed by separate spreading and
16 compacting equipment. The intermingling of HMA produced from more than
17 one JMF is prohibited. Each strip of HMA placed during a work shift shall
18 conform to a single JMF established for the class of HMA specified unless
19 there is a need to make an adjustment in the JMF.

20 21 **5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA**

22
23 For HMA accepted by nonstatistical evaluation the aggregate properties of
24 sand equivalent, uncompacted void content and fracture will be evaluated
25 in accordance with Section 3-04. Sampling and testing of aggregates for
26 HMA accepted by commercial evaluation will be at the option of the
27 Engineer.

28 29 **5-04.3(9) HMA Mixture Acceptance**

30
31 Acceptance of HMA shall be as provided under nonstatistical, or commercial
32 evaluation.

33
34 Nonstatistical evaluation will be used for the acceptance of HMA unless
35 Commercial Evaluation is specified.

36
37 Commercial evaluation will be used for Commercial HMA and for other
38 classes of HMA in the following applications: sidewalks, road approaches,
39 ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and
40 pavement repair. Other nonstructural applications of HMA accepted by
41 commercial evaluation shall be as approved by the Engineer. Sampling and
42 testing of HMA accepted by commercial evaluation will be at the option of
43 the Engineer.

44

SPECIAL PROVISIONS - Continued

1 The mix design will be the initial JMF for the class of HMA. The Contractor
2 may request a change in the JMF. Any adjustments to the JMF will require
3 the approval of the Engineer and may be made in accordance with this
4 section.

HMA Tolerances and Adjustments

- 5
6
7
8 1. **Job Mix Formula Tolerances** – The constituents of the mixture at
9 the time of acceptance shall be within tolerance. The tolerance limits
10 will be established as follows:

11
12 For Asphalt Binder and Air Voids (Va), the acceptance limits are
13 determined by adding the tolerances below to the approved JMF
14 values. These values will also be the Upper Specification Limit (USL)
15 and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2.
16

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

17
18 For Aggregates in the mixture:

- 19
20 a. First, determine preliminary upper and lower acceptance
21 limits by applying the following tolerances to the approved
22 JMF.
23

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%

- 24
25 b. Second, adjust the preliminary upper and lower acceptance
26 limits determined from step (a) the minimum amount
27 necessary so that none of the aggregate properties are
28 outside the control points in Section 9-03.8(6). The resulting
29 values will be the upper and lower acceptance limits for
30 aggregates, as well as the USL and LSL required in
31 Section 1-06.2(2)D2.
32

SPECIAL PROVISIONS - Continued

1 2. Job Mix Formula Adjustments – An adjustment to the aggregate
2 gradation or asphalt binder content of the JMF requires approval of
3 the Engineer. Adjustments to the JMF will only be considered if the
4 change produces material of equal or better quality and may require
5 the development of a new mix design if the adjustment exceeds the
6 amounts listed below.

7
8 a. **Aggregates** –2 percent for the aggregate passing the 1½",
9 1", ¾", ½", ⅜", and the No. 4 sieves, 1 percent for aggregate
10 passing the No. 8 sieve, and 0.5 percent for the aggregate
11 passing the No. 200 sieve. The adjusted JMF shall be within
12 the range of the control points in Section 9-03.8(6).

13
14 b. **Asphalt Binder Content** – The Engineer may order or
15 approve changes to asphalt binder content. The maximum
16 adjustment from the approved mix design for the asphalt
17 binder content shall be 0.3 percent

18 19 **5-04.3(9)A Vacant**

20 21 **5-04.3(9)B Vacant**

22 23 **5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation**

24
25 HMA mixture which is accepted by Nonstatistical Evaluation will be
26 evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

27 28 **5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots**

29
30 A lot is represented by randomly selected samples of the same mix design
31 that will be tested for acceptance. A lot is defined as the total quantity of
32 material or work produced for each Job Mix Formula placed. Only one lot
33 per JMF is expected. A subplot shall be equal to one day's production or
34 800 tons, whichever is less except that the final subplot will be a minimum of
35 400 tons and may be increased to 1200 tons.

36
37 All of the test results obtained from the acceptance samples from a given
38 lot shall be evaluated collectively. If the Contractor requests a change to the
39 JMF that is approved, the material produced after the change will be
40 evaluated on the basis of the new JMF for the remaining sublots in the
41 current lot and for acceptance of subsequent lots. For a lot in progress with
42 a CPF less than 0.75, a new lot will begin at the Contractor's request after
43 the Engineer is satisfied that material conforming to the Specifications can
44 be produced.

SPECIAL PROVISIONS - Continued

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Sampling and testing for evaluation shall be performed on the frequency of one sample per subplot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall to be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer’s discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of Va will at the option of the Contracting Agency. If tested, compliance of Va will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

SPECIAL PROVISIONS - Continued

1 **5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors**

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4
5
6

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	Factor “f”
All aggregate passing: 1½", 1", ¾", ½", ⅜" and No. 4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (Va) (where applicable)	20

7
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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.

19 **5-04.3(9)C5 Vacant**

20

21 **5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments**

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24
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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).

30
31
32
33

1 **5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests**

2
3 The Contractor may request a subplot be retested. To request a retest, the
4 Contractor shall submit a written request within 7 calendar days after the
5 specific test results have been received. A split of the original acceptance
6 sample will be retested. The split of the sample will not be tested with the
7 same tester that ran the original acceptance test. The sample will be tested
8 for a complete gradation analysis, asphalt binder content, and, at the option
9 of the agency, Va. The results of the retest will be used for the acceptance
10 of the HMA in place of the original subplot sample test results. The cost of
11 testing will be deducted from any monies due or that may come due the
12 Contractor under the Contract at the rate of \$500 per sample.

13
14 **5-04.3 (9)D Mixture Acceptance – Commercial Evaluation**

15
16 If sampled and tested, HMA produced under Commercial Evaluation and
17 having all constituents falling within the tolerance limits of the job mix
18 formula shall be accepted at the unit Contract price with no further
19 evaluation. When one or more constituents fall outside the commercial
20 tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be
21 evaluated in accordance with Section 1-06.2 to determine the appropriate
22 CPF. The commercial tolerance limits will be used in the calculation of the
23 CPF and the maximum CPF shall be 1.00. When less than three sublots
24 exist, backup samples of the existing sublots or samples from the street
25 shall be tested to provide a minimum of three sets of results for evaluation.

26
27 For each lot of HMA mix produced and tested under Commercial Evaluation
28 when the calculated CPF is less than 1.00, a Nonconforming Mix Factor
29 (NCMF) will be determined. The NCMF equals the algebraic difference of
30 CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price
31 Adjustment will be calculated as the product of the NCMF, the quantity of
32 HMA in the lot in tons, and the unit Contract price per ton of mix.

33
34 If a constituent is not measured in accordance with these Specifications,
35 its individual pay factor will be considered 1.00 in calculating the Composite
36 Pay Factor (CPF).

37
38 **5-04.3(10) HMA Compaction Acceptance**

39
40 HMA mixture accepted by nonstatistical evaluation that is used in traffic
41 lanes, including lanes for intersections, ramps, truck climbing, weaving, and
42 speed change, and having a specified compacted course thickness greater
43 than 0.10-foot, shall be compacted to a specified level of relative density.
44 The specified level of relative density shall be a Composite Pay Factor

SPECIAL PROVISIONS - Continued

1 (CPF) of not less than 0.75 when evaluated in accordance with
2 Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum
3 density). The maximum density shall be determined by WSDOT FOP for
4 AASHTO T 729. The specified level of density attained will be determined
5 by the evaluation of the density of the pavement. The density of the
6 pavement shall be determined in accordance with WSDOT FOP for WAQTC
7 TM 8, except that gauge correlation will be at the discretion of the Engineer,
8 when using the nuclear density gauge and WSDOT SOP 736 when using
9 cores to determine density.

10
11 Tests for the determination of the pavement density will be taken in
12 accordance with the required procedures for measurement by a nuclear
13 density gauge or roadway cores after completion of the finish rolling.

14
15 If the Contracting Agency uses a nuclear density gauge to determine density
16 the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be
17 used on the day the mix is placed and prior to opening to traffic.

18
19 Roadway cores for density may be obtained by either the Contracting
20 Agency or the Contractor in accordance with WSDOT SOP 734. The core
21 diameter shall be 4-inches minimum, unless otherwise approved by the
22 Engineer. Roadway cores will be tested by the Contracting Agency in
23 accordance with WSDOT FOP for AASHTO T 166.

24
25 If the Contract includes the Bid item "Roadway Core" the cores shall be
26 obtained by the Contractor in the presence of the Engineer on the same day
27 the mix is placed and at locations designated by the Engineer. If the
28 Contract does not include the Bid item "Roadway Core" the Contracting
29 Agency will obtain the cores.

30
31 For a lot in progress with a CPF less than 0.75, a new lot will begin at the
32 Contractor's request after the Engineer is satisfied that material conforming
33 to the Specifications can be produced.

34
35 HMA mixture accepted by commercial evaluation and HMA constructed
36 under conditions other than those listed above shall be compacted on the
37 basis of a test point evaluation of the compaction train. The test point
38 evaluation shall be performed in accordance with instructions from the
39 Engineer. The number of passes with an approved compaction train,
40 required to attain the maximum test point density, shall be used on all
41 subsequent paving.

42

SPECIAL PROVISIONS - Continued

1 HMA for preleveling shall be thoroughly compacted. HMA that is used for
2 preleveling wheel rutting shall be compacted with a pneumatic tire roller
3 unless otherwise approved by the Engineer.
4

Test Results

5
6 For a subplot that has been tested with a nuclear density gauge that did not
7 meet the minimum of 92 percent of the reference maximum density in a
8 compaction lot with a CPF below 1.00 and thus subject to a price reduction
9 or rejection, the Contractor may request that a core be used for
10 determination of the relative density of the subplot. The relative density of the
11 core will replace the relative density determined by the nuclear density
12 gauge for the subplot and will be used for calculation of the CPF and
13 acceptance of HMA compaction lot.
14

15 When cores are taken by the Contracting Agency at the request of the
16 Contractor, they shall be requested by noon of the next workday after the
17 test results for the subplot have been provided or made available to the
18 Contractor. Core locations shall be outside of wheel paths and as
19 determined by the Engineer. Traffic control shall be provided by the
20 Contractor as requested by the Engineer. Failure by the Contractor to
21 provide the requested traffic control will result in forfeiture of the request for
22 cores. When the CPF for the lot based on the results of the HMA cores is
23 less than 1.00, the cost for the coring will be deducted from any monies due
24 or that may become due the Contractor under the Contract at the rate of
25 \$200 per core and the Contractor shall pay for the cost of the traffic control.
26

5-04.3(10)A HMA Compaction – General Compaction Requirements

27
28
29 Compaction shall take place when the mixture is in the proper condition so
30 that no undue displacement, cracking, or shoving occurs. Areas
31 inaccessible to large compaction equipment shall be compacted by other
32 mechanical means. Any HMA that becomes loose, broken, contaminated,
33 shows an excess or deficiency of asphalt, or is in any way defective, shall
34 be removed and replaced with new hot mix that shall be immediately
35 compacted to conform to the surrounding area.
36

37 The type of rollers to be used and their relative position in the compaction
38 sequence shall generally be the Contractor's option, provided the specified
39 densities are attained. Unless the Engineer has approved otherwise, rollers
40 shall only be operated in the static mode when the internal temperature of
41 the mix is less than 175°F. Regardless of mix temperature, a roller shall not
42 be operated in a mode that results in checking or cracking of the mat.
43 Rollers shall only be operated in static mode on bridge decks.
44

1 **5-04.3(10)B HMA Compaction – Cyclic Density**

2
3 Low cyclic density areas are defined as spots or streaks in the pavement
4 that are less than 90 percent of the theoretical maximum density. At the
5 Engineer’s discretion, the Engineer may evaluate the HMA pavement for
6 low cyclic density, and when doing so will follow WSDOT SOP 733. A \$500
7 Cyclic Density Price Adjustment will be assessed for any 500-foot section
8 with two or more density readings below 90 percent of the theoretical
9 maximum density.

10
11 **5-04.3(10)C Vacant**

12
13 **5-04.3(10)D HMA Nonstatistical Compaction**

14
15 **5-04.3(10)D1 HMA Nonstatistical Compaction – Lots and Sublots**

16
17 HMA compaction which is accepted by nonstatistical evaluation will be
18 based on acceptance testing performed by the Contracting Agency dividing
19 the project into compaction lots.

20
21 A lot is represented by randomly selected samples of the same mix design
22 that will be tested for acceptance. A lot is defined as the total quantity of
23 material or work produced for each Job Mix Formula placed. Only one lot
24 per JMF is expected. A subplot shall be equal to one day’s production or
25 400 tons, whichever is less except that the final subplot will be a minimum of
26 200 tons and may be increased to 800 tons. Testing for compaction will be
27 at the rate of 5 tests per subplot per WSDOT T 738.

28
29 The subplot locations within each density lot will be determined by the
30 Engineer. For a lot in progress with a CPF less than 0.75, a new lot will
31 begin at the Contractor’s request after the Engineer is satisfied that material
32 conforming to the Specifications can be produced.

33
34 HMA mixture accepted by commercial evaluation and HMA constructed
35 under conditions other than those listed above shall be compacted on the
36 basis of a test point evaluation of the compaction train. The test point
37 evaluation shall be performed in accordance with instructions from the
38 Engineer. The number of passes with an approved compaction train,
39 required to attain the maximum test point density, shall be used on all
40 subsequent paving.

41
42 HMA for preleveling shall be thoroughly compacted. HMA that is used to
43 prelevel wheel ruts shall be compacted with a pneumatic tire roller unless
44 otherwise approved by the Engineer.

SPECIAL PROVISIONS - Continued

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5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each subplot, with one test per subplot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a subplot 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.

1 **5-04.3(11)B Rejection by Contractor**

2
3 The Contractor may, prior to sampling, elect to remove any defective
4 material and replace it with new material. Any such new material will be
5 sampled, tested, and evaluated for acceptance.
6

7 **5-04.3(11)C Rejection Without Testing (Mixture or Compaction)**

8
9 The Engineer may, without sampling, reject any batch, load, or section of
10 Roadway that appears defective. Material rejected before placement shall
11 not be incorporated into the pavement. Any rejected section of Roadway
12 shall be removed.

13
14 No payment will be made for the rejected materials or the removal of the
15 materials unless the Contractor requests that the rejected material be
16 tested. If the Contractor elects to have the rejected material tested, a
17 minimum of three representative samples will be obtained and tested.
18 Acceptance of rejected material will be based on conformance with the
19 nonstatistical acceptance Specification. If the CPF for the rejected material
20 is less than 0.75, no payment will be made for the rejected material; in
21 addition, the cost of sampling and testing shall be borne by the Contractor.
22 If the CPF is greater than or equal to 0.75, the cost of sampling and testing
23 will be borne by the Contracting Agency. If the material is rejected before
24 placement and the CPF is greater than or equal to 0.75, compensation for
25 the rejected material will be at a CPF of 0.75. If rejection occurs after
26 placement and the CPF is greater than or equal to 0.75, compensation for
27 the rejected material will be at the calculated CPF with an addition of
28 25 percent of the unit Contract price added for the cost of removal and
29 disposal.
30

31 **5-04.3(11)D Rejection - A Partial Sublot**

32
33 In addition to the random acceptance sampling and testing, the Engineer
34 may also isolate from a normal sublot any material that is suspected of
35 being defective in relative density, gradation or asphalt binder content. Such
36 isolated material will not include an original sample location. A minimum of
37 three random samples of the suspect material will be obtained and tested.
38 The material will then be statistically evaluated as an independent lot in
39 accordance with Section 1-06.2(2).
40

41 **5-04.3(11)E Rejection - An Entire Sublot**

42
43 An entire sublot that is suspected of being defective may be rejected. When
44 a sublot is rejected a minimum of two additional random samples from this

SPECIAL PROVISIONS - Continued

1 subplot will be obtained. These additional samples and the original subplot will
2 be evaluated as an independent lot in accordance with Section 1-06.2(2).

3 4 **5-04.3(11)F Rejection - A Lot in Progress**

5
6 The Contractor shall shut down operations and shall not resume HMA
7 placement until such time as the Engineer is satisfied that material
8 conforming to the Specifications can be produced:

9
10 When the Composite Pay Factor (CPF) of a lot in progress drops below
11 1.00 and the Contractor is taking no corrective action, or

12
13 When the Pay Factor (PF) for any constituent of a lot in progress drops
14 below 0.95 and the Contractor is taking no corrective action, or

15
16 When either the PFi for any constituent or the CPF of a lot in progress is
17 less than 0.75.

18 19 **5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)**

20
21 An entire lot with a CPF of less than 0.75 will be rejected.

22 23 **5-04.3(12) Joints**

24 25 **5-04.3(12)A HMA Joints**

26 27 **5-04.3(12)A1 Transverse Joints**

28
29 The Contractor shall conduct operations such that the placing of the top or
30 wearing course is a continuous operation or as close to continuous as
31 possible. Unscheduled transverse joints will be allowed and the roller may
32 pass over the unprotected end of the freshly laid mixture only when the
33 placement of the course must be discontinued for such a length of time that
34 the mixture will cool below compaction temperature. When the Work is
35 resumed, the previously compacted mixture shall be cut back to produce a
36 slightly beveled edge for the full thickness of the course.

37
38 A temporary wedge of HMA constructed on a 20H:1V shall be constructed
39 where a transverse joint as a result of paving or planing is open to traffic.
40 The HMA in the temporary wedge shall be separated from the permanent
41 HMA by strips of heavy wrapping paper or other methods approved by the
42 Engineer. The wrapping paper shall be removed and the joint trimmed to a
43 slightly beveled edge for the full thickness of the course prior to resumption
44 of paving.

SPECIAL PROVISIONS - Continued

1
2 The material that is cut away shall be wasted and new mix shall be laid
3 against the cut. Rollers or tamping irons shall be used to seal the joint.
4

5 **5-04.3(12)A2 Longitudinal Joints**

6
7 The longitudinal joint in any one course shall be offset from the course
8 immediately below by not more than 6 inches nor less than 2 inches. All
9 longitudinal joints constructed in the wearing course shall be located at a
10 lane line or an edge line of the Traveled Way. A notched wedge joint shall
11 be constructed along all longitudinal joints in the wearing surface of new
12 HMA unless otherwise approved by the Engineer. The notched wedge joint
13 shall have a vertical edge of not less than the maximum aggregate size or
14 more than $\frac{1}{2}$ of the compacted lift thickness and then taper down on a slope
15 not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint
16 shall be uniformly compacted.
17

18 **5-04.3(12)B Bridge Paving Joint Seals**

19 **5-04.3(12)B1 HMA Sawcut and Seal**

20
21
22 Prior to placing HMA on the bridge deck, establish sawcut alignment points
23 at both ends of the bridge paving joint seals to be placed at the bridge ends,
24 and at interior joints within the bridge deck when and where shown in the
25 Plans. Establish the sawcut alignment points in a manner that they remain
26 functional for use in aligning the sawcut after placing the overlay.
27

28 Submit a Type 1 Working Drawing consisting of the sealant manufacturer's
29 application procedure.
30

31 Construct the bridge paving joint seal as specified on the Plans and in
32 accordance with the detail shown in the Standard Plans. Construct the
33 sawcut in accordance with the detail shown in the Standard Plan. Construct
34 the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's
35 application procedure.
36

37 **5-04.3(12)B2 Paved Panel Joint Seal**

38
39 Construct the paved panel joint seal in accordance with the requirements
40 specified in Section 5-04.3(12)B1 and the following requirement:
41

- 42 1. Clean and seal the existing joint between concrete panels in
43 accordance with Section 5-01.3(8) and the details shown in the
44 Standard Plans.

SPECIAL PROVISIONS - Continued

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5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than 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 1/4 inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or
2. Removal and replacement of the wearing course of HMA, or
3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of \$500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

SPECIAL PROVISIONS - Continued

5-04.3(14) Planing (Milling) Bituminous Pavement

The planning plan must be approved by the Engineer and a pre planning meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

1 **5-04.3(14)A Pre-Planing Metal Detection Check**

2
3 Before starting planing of pavements, and before any additional depth
4 planing required by the Engineer, the Contractor must conduct a physical
5 survey of existing pavement to be planed with equipment that can identify
6 hidden metal objects.

7
8 Should such metal be identified, promptly notify the Engineer.

9
10 See Section 1-07.16(1) regarding the protection of survey monumentation
11 that may be hidden in pavement.

12
13 The Contractor is solely responsible for any damage to equipment resulting
14 from the Contractor's failure to conduct a pre-planing metal detection
15 survey, or from the Contractor's failure to notify the Engineer of any hidden
16 metal that is detected.

17
18 **5-04.3(14)B Paving and Planing Under Traffic**

19
20 **5-04.3(14)B1 General**

21
22 In addition the requirements of Section 1-07.23 and the traffic controls
23 required in Section 1-10, and unless the Contract specifies otherwise or the
24 Engineer approves, the Contractor must comply with the following:

25
26 1. Intersections:

27
28 a. Keep intersections open to traffic at all times, except when
29 paving or planing operations through an intersection requires
30 closure. Such closure must be kept to the minimum time
31 required to place and compact the HMA mixture, or plane as
32 appropriate. For paving, schedule such closure to individual
33 lanes or portions thereof that allows the traffic volumes and
34 schedule of traffic volumes required in the approved traffic
35 control plan. Schedule work so that adjacent intersections are
36 not impacted at the same time and comply with the traffic
37 control restrictions required by the Traffic Engineer. Each
38 individual intersection closure or partial closure, must be
39 addressed in the traffic control plan, which must be submitted
40 to and accepted by the Engineer, see Section 1-10.2(2).

41
42 b. When planing or paving and related construction must occur
43 in an intersection, consider scheduling and sequencing such
44 work into quarters of the intersection, or half or more of an

SPECIAL PROVISIONS - Continued

- 1 intersection with side street detours. Be prepared to sequence
2 the work to individual lanes or portions thereof.
3
4 c. Should closure of the intersection in its entirety be necessary,
5 and no trolley service is impacted, keep such closure to the
6 minimum time required to place and compact the HMA
7 mixture, plane, remove asphalt, tack coat, and as needed.
8
9 d. Any work in an intersection requires advance warning in both
10 signage and a number of Working Days advance notice as
11 determined by the Engineer, to alert traffic and emergency
12 services of the intersection closure or partial closure.
13
14 e. Allow new compacted HMA asphalt to cool to ambient
15 temperature before any traffic is allowed on it. Traffic is not
16 allowed on newly placed asphalt until approval has been
17 obtained from the Engineer.
18
19 2. Temporary centerline marking, post-paving temporary marking,
20 temporary stop bars, and maintaining temporary pavement marking
21 must comply with Section 8-23.
22
23 3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

27 The Contractor must submit a separate planing plan and a separate paving
28 plan to the Engineer at least 5 Working Days in advance of each operation's
29 activity start date. These plans must show how the moving operation and
30 traffic control are coordinated, as they will be discussed at the pre-planing
31 briefing and pre-paving briefing. When requested by the Engineer, the
32 Contractor must provide each operation's traffic control plan on 24 x 36 inch
33 or larger size Shop Drawings with a scale showing both the area of
34 operation and sufficient detail of traffic beyond the area of operation where
35 detour traffic may be required. The scale on the Shop Drawings is 1 inch =
36 20 feet, which may be changed if the Engineer agrees sufficient detail is
37 shown.

39 The planing operation and the paving operation include, but are not limited
40 to, metal detection, removal of asphalt and temporary asphalt of any kind,
41 tack coat and drying, staging of supply trucks, paving trains, rolling,
42 scheduling, and as may be discussed at the briefing.
43

SPECIAL PROVISIONS - Continued

1 When intersections will be partially or totally blocked, provide adequately
2 sized and noticeable signage alerting traffic of closures to come, a minimum
3 2 Working Days in advance. The traffic control plan must show where peace
4 officers will be stationed when signalization is or may be, countermanded,
5 and show areas where flaggers are proposed.
6

7 At a minimum, the planing and the paving plan must include:
8

- 9 1. A copy of the accepted traffic control plan, see Section 1-10.2(2),
10 detailing each day's traffic control as it relates to the specific
11 requirements of that day's planing and paving. Briefly describe the
12 sequencing of traffic control consistent with the proposed planing
13 and paving sequence, and scheduling of placement of temporary
14 pavement markings and channelizing devices after each day's
15 planing, and paving.
16
- 17 2. A copy of each intersection's traffic control plan.
18
- 19 3. Haul routes from Supplier facilities, and locations of temporary
20 parking and staging areas, including return routes. Describe the
21 complete round trip as it relates to the sequencing of paving
22 operations.
23
- 24 4. Names and locations of HMA Supplier facilities to be used.
25
- 26 5. List of all equipment to be used for paving.
27
- 28 6. List of personnel and associated job classification assigned to each
29 piece of paving equipment.
30
- 31 7. Description (geometric or narrative) of the scheduled sequence of
32 planing and of paving, and intended area of planing and of paving for
33 each day's work, must include the directions of proposed planing and
34 of proposed paving, sequence of adjacent lane paving, sequence of
35 skipped lane paving, intersection planing and paving scheduling and
36 sequencing, and proposed notifications and coordinations to be
37 timely made. The plan must show HMA joints relative to the final
38 pavement marking lane lines.
39
- 40 8. Names, job titles, and contact information for field, office, and plant
41 supervisory personnel.
42
- 43 9. A copy of the approved Mix Designs.
44

SPECIAL PROVISIONS - Continued

1 10. Tonnage of HMA to be placed each day.

2
3 11. Approximate times and days for starting and ending daily operations.

4
5 **5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing**

6
7 At least 2 Working Days before the first paving operation and the first
8 planing operation, or as scheduled by the Engineer for future paving and
9 planing operations to ensure the Contractor has adequately prepared for
10 notifying and coordinating as required in the Contract, the Contractor must
11 be prepared to discuss that day's operations as they relate to other entities
12 and to public safety and convenience, including driveway and business
13 access, garbage truck operations, Metro transit operations and working
14 around energized overhead wires, school and nursing home and hospital
15 and other accesses, other contractors who may be operating in the area,
16 pedestrian and bicycle traffic, and emergency services. The Contractor, and
17 Subcontractors that may be part of that day's operations, must meet with
18 the Engineer and discuss the proposed operation as it relates to the
19 submitted planing plan and paving plan, approved traffic control plan, and
20 public convenience and safety. Such discussion includes, but is not limited
21 to:

22
23 1. General for both Paving Plan and for Planing Plan:

24
25 a. The actual times of starting and ending daily operations.

26
27 b. In intersections, how to break up the intersection, and address
28 traffic control and signalization for that operation, including
29 use of peace officers.

30
31 c. The sequencing and scheduling of paving operations and of
32 planing operations, as applicable, as it relates to traffic
33 control, to public convenience and safety, and to other con-
34 tractors who may operate in the Project Site.

35
36 d. Notifications required of Contractor activities, and
37 coordinating with other entities and the public as necessary.

38
39 e. Description of the sequencing of installation and types of
40 temporary pavement markings as it relates to planning and to
41 paving.

42

SPECIAL PROVISIONS - Continued

- 1 f. Description of the sequencing of installation of, and the
2 removal of, temporary pavement patch material around
3 exposed castings and as may be needed
4
5 g. Description of procedures and equipment to identify hidden
6 metal in the pavement, such as survey monumentation,
7 monitoring wells, street car rail, and castings, before planning,
8 see Section 5-04.3(14)B2.
9
10 h. Description of how flaggers will be coordinated with the
11 planing, paving, and related operations.
12
13 i. Description of sequencing of traffic controls for the process of
14 rigid pavement base repairs.
15
16 j. Other items the Engineer deems necessary to address.
17
18 2. Paving – additional topics:
19
20 a. When to start applying tack and coordinating with paving.
21
22 b. Types of equipment and numbers of each type equipment to
23 be used. If more pieces of equipment than personnel are
24 proposed, describe the sequencing of the personnel operating
25 the types of equipment. Discuss the continuance of operator
26 personnel for each type equipment as it relates to meeting
27 Specification requirements.
28
29 c. Number of JMFs to be placed, and if more than one JMF how
30 the Contractor will ensure different JMFs are distinguished,
31 how pavers and MTVs are distinguished if more than one JMF
32 is being placed at the time, and how pavers and MTVs are
33 cleaned so that one JMF does not adversely influence the
34 other JMF.
35
36 d. Description of contingency plans for that day's operations
37 such as equipment breakdown, rain out, and Supplier
38 shutdown of operations.
39
40 e. Number of sublots to be placed, sequencing of density testing,
41 and other sampling and testing.
42

SPECIAL PROVISIONS - Continued

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

HMA approaches shall be constructed at the locations shown in the Plans or where staked by the Engineer. The Work shall be performed in accordance with Section 5-04.

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Preparation of untreated roadway will be measured by the mile once along the centerline of the main line Roadway. No additional measurement will be made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement will be to the nearest 0.01 mile.

Soil residual herbicide will be measured by the mile for the stated width to the nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Asphalt for prime coat will be measured by the ton in accordance with Section 1-09.2.

Prime coat aggregate will be measured by the cubic yard, truck measure, or by the ton, whichever is designated in the Proposal.

Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

SPECIAL PROVISIONS - Continued

1 Longitudinal joint seals between the HMA and cement concrete pavement
2 will be measured by the linear foot along the line and slope of the completed
3 joint seal.

4
5 Planing bituminous pavement will be measured by the square yard.

6
7 Temporary pavement marking will be measured by the linear foot as
8 provided in Section 8-23.4.

9
10 Water will be measured by the M gallon as provided in Section 2-07.4.

11
12 **5-04.5 Payment**

13
14 Payment will be made for each of the following Bid items that are included
15 in the Proposal:

16
17 “HMA Cl. ___ PG ___”, per ton.

18
19 “HMA for Approach Cl. ___ PG ___”, per ton.

20
21 “HMA for Preleveling Cl. ___ PG ___”, per ton.

22
23 “HMA for Pavement Repair Cl. ___ PG ___”, per ton.

24
25 “Commercial HMA”, per ton.

26
27 (*****)

28
29 Section 5-04.5 of the July 18, 2018 APWA GSP is supplemented with the following:

30
31 “HMA Cl. ___ PG ___ for Pavement Repair”, per square yard.

32
33 The unit Contract price per square yard for “HMA Cl. ___ PG ___ for
34 Pavement Repair” shall be full compensation for all costs, including but not
35 limited to saw cut, pavement removal, excavation, back fill with CSBC, and
36 HMA pavement.

37
38 “HMA Cl. ___ PG ___ for Overlay ”, per ton.

39
40 (July 18, 2018 APWA GSP)

41
42 “Preparation of Untreated Roadway”, per mile.

43

SPECIAL PROVISIONS - Continued

1 The unit Contract price per mile for “Preparation of Untreated Roadway”
2 shall be full pay for all Work described under 5-04.3(4) , with the exception,
3 however, that all costs involved in patching the Roadway prior to placement
4 of HMA shall be included in the unit Contract price per ton for “HMA Cl. ____
5 PG ____” which was used for patching. If the Proposal does not include a
6 Bid item for “Preparation of Untreated Roadway”, the Roadway shall be
7 prepared as specified, but the Work shall be included in the Contract prices
8 of the other items of Work.

9

10 “Preparation of Existing Paved Surfaces”, per mile.

11

12 The unit Contract Price for “Preparation of Existing Paved Surfaces” shall
13 be full pay for all Work described under Section 5-04.3(4) with the exception,
14 however, that all costs involved in patching the Roadway prior to placement
15 of HMA shall be included in the unit Contract price per ton for “HMA Cl. ____
16 PG ____” which was used for patching. If the Proposal does not include a
17 Bid item for “Preparation of Untreated Roadway”, the Roadway shall be
18 prepared as specified, but the Work shall be included in the Contract prices
19 of the other items of Work.

20

21 “Crack Sealing”, by force account.

22

23 “Crack Sealing” will be paid for by force account as specified in
24 Section 1-09.6. For the purpose of providing a common Proposal for all
25 Bidders, the Contracting Agency has entered an amount in the Proposal to
26 become a part of the total Bid by the Contractor.

27

28 “Pavement Repair Excavation Incl. Haul”, per square yard.

29

30 The unit Contract price per square yard for “Pavement Repair Excavation
31 Incl. Haul” shall be full payment for all costs incurred to perform the Work
32 described in Section 5-04.3(4) with the exception, however, that all costs
33 involved in the placement of HMA shall be included in the unit Contract price
34 per ton for “HMA for Pavement Repair Cl. ____ PG ____”, per ton.

35

36 “Asphalt for Prime Coat”, per ton.

37

38 The unit Contract price per ton for “Asphalt for Prime Coat” shall be full
39 payment for all costs incurred to obtain, provide and install the material in
40 accordance with Section 5-04.3(4).

41

42 “Prime Coat Agg.”, per cubic yard, or per ton.

43

SPECIAL PROVISIONS - Continued

1 The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall
2 be full pay for furnishing, loading, and hauling aggregate to the place of
3 deposit and spreading the aggregate in the quantities required by the
4 Engineer.
5
6 “Asphalt for Fog Seal”, per ton.
7
8 Payment for “Asphalt for Fog Seal” is described in Section 5-02.5.
9
10 “Longitudinal Joint Seal”, per linear foot.
11
12 The unit Contract price per linear foot for “Longitudinal Joint Seal” shall be
13 full payment for all costs incurred to perform the Work described in
14 Section 5-04.3(12).
15
16 “Planing Bituminous Pavement”, per square yard.
17
18 The unit Contract price per square yard for “Planing Bituminous Pavement”
19 shall be full payment for all costs incurred to perform the Work described in
20 Section 5-04.3(14).
21
22 “Temporary Pavement Marking”, per linear foot.
23
24 Payment for “Temporary Pavement Marking” is described in Section 8-23.5.
25
26 “Water”, per M gallon.
27
28 Payment for “Water” is described in Section 2-07.5.
29
30 “Job Mix Compliance Price Adjustment”, by calculation.
31
32 “Job Mix Compliance Price Adjustment” will be calculated and paid for as
33 described in Section 5-04.3(9)C6.
34
35 “Compaction Price Adjustment”, by calculation.
36
37 “Compaction Price Adjustment” will be calculated and paid for as described
38 in Section 5-04.3(10)D3.
39
40 “Roadway Core”, per each.
41
42 The Contractor’s costs for all other Work associated with the coring (e.g.,
43 traffic control) shall be incidental and included within the unit Bid price per
44 each and no additional payments will be made.

SPECIAL PROVISIONS - Continued

1

2
3
4
5

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1 **DIVISION 7**

2
3 **DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS,**
4 **WATER MAINS, AND CONDUITS**

5 **7-01 DRAINS**

6
7 **7-01.4 Measurement**

8
9 Section 7-01.4 is supplemented with the following:

10
11 (*****)

12 No measurement will be made for gravel backfill for drain.

13
14 No measurement will be made for construction geotextile for underground
15 drainage.

16
17 **7-01.5 Payment**

18
19 Section 7-01.5 is supplemented with the following:

20
21 (*****)

22 “___ Underdrain Pipe ___ In. Diam.”, per linear foot.

23
24 The unit contract price per linear foot for “___ Underdrain Pipe ___ In.
25 Diam.” shall be full pay for all labor, materials, and equipment to complete
26 the installation of the underdrain including, but not limited to, trench
27 excavation, normal trench dewatering, laying and jointing pipe and fittings,
28 connection to existing storm sewer pipe, approved couplings and adaptors,
29 import pipe bedding, gravel backfill for drains, compaction, and cleanup as
30 shown in the Plans.

31
32 **7-04 STORM SEWERS**

33
34 **7-04.2 Materials**

35
36 Delete the sixth paragraph under this Section and replace it with the following:

37
38 (*****)

39 The Contractor shall provide the diameter and type of pipe specified on the
40 Plans.

SPECIAL PROVISIONS - Continued

1 **7-04.5 Payment**

2

3 Section 7-04.5 is supplemented with the following:

4

5 (*****)

6 “ ___ Storm Sewer Pipe ___ In. Diam.”, per linear foot.

7

8 The unit contract price per linear foot for “ ___ Storm Sewer Pipe ___ In.
9 Diam.” shall be full pay for all labor, materials, and equipment to complete
10 the installation of the storm sewer pipe including, but not limited to, trench
11 excavation, normal trench dewatering, laying and jointing pipe and fittings,
12 connection to existing storm sewer pipe, approved couplings and adaptors,
13 import pipe bedding, import trench backfill, compaction, and cleanup as
14 shown in the Plans.

15

16 **7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS**

17

18 **7-05.1 Description**

19

20 Section 7-05.1 is supplemented with the following:

21

22 (*****)

23 The Work described in this section also includes adjusting sanitary sewer
24 manholes and catch basins to grade per the Plans and these Specifications,
25 and constructing linear storm chambers in accordance with the Plans,
26 manufacturer’s recommendations, and these Specifications, in conformity
27 with the lines and grades staked.

28

29 **7-05.2 Materials**

30

31 Section 7-05.2 is supplemented with the following:

32

33 (*****)

34 “Stormwater Treatment Vault” shall be stormwater treatment systems
35 manufactured by CONTECH Construction Products Inc., and shall consist
36 of a Filterra Model FTPD0404. The Contractor may request approval of an
37 equal or better water quality treatment device that has General Use Level
38 Designation by the Washington State Department of Ecology for basic water
39 quality treatment. Substitution requests must meet the requirements
40 included in these Special Provisions, meet manufacturers’ requirements,
41 and be compatible with the discharge to the level spreader trench. All
42 substitutions must be approved by the Tulalip Tribes.

43

44 The Filterra system shall be provided and installed in accordance with the
45 specifications included in the appendices.

SPECIAL PROVISIONS - Continued

1
2 "Stormwater Treatment Catch Basin" shall be stormwater treatment
3 systems manufactured by CONTECH Construction Products Inc., and shall
4 consist of a 1-Cartridge Catch Basin StormFilter (18-inch cartridge height).
5 The Contractor may request approval of an equal or better water quality
6 treatment device that has General Use Level Designation by the
7 Washington State Department of Ecology for basic water quality treatment.
8 Substitution requests must meet the requirements included in these Special
9 Provisions, meet manufacturers requirements and be compatible with the
10 discharge to the level spreader trench. All substitutions must be approved
11 by the Tulalip Tribes.

12
13 The Catch Basin StormFilter system shall be provided and installed in
14 accordance with the specifications included in the appendices.

15 16 **Chamber System**

17 Materials for the Chamber System shall be in accordance with the
18 manufacturers requirements for the SC-310 StormTech chamber system as
19 manufactured by Advanced Drainage Systems (ADS).

20 21 **7-05.3 Construction Requirements**

22
23 Section 7-05.3 is supplemented with the following:

24
25 (*****)

26 See Plan Sheets and the appendices for manufacturer-supplied
27 specifications relating to the CONTECH systems.

28
29 The Contractor shall provide for manufacturer maintenance of the system
30 for a period of 1 year after project acceptance. The Contractor shall also
31 warranty the components of the units for a period of one year.

32 33 **Chamber System**

34 See Plan Sheets and manufacturers requirements for the Chamber System
35 as manufactured by ADS.

36 37 **7-05.3(1) Adjusting Manholes and Catch Basins to Grade**

38
39 This section is deleted and replaced with the following:

40
41 (*****)

42 Where shown in the Plans or where directed by the Engineer, the Contractor
43 shall adjust manholes and catch basins to be flush with the finished grade
44 using precast concrete adjustment rings matching the existing structure, as

SPECIAL PROVISIONS - Continued

1 shown in the Plans. The Contractor shall complete the adjustment of new
2 and existing utility structures in paved areas within 5 working days after the
3 pavement is completed.
4

5 The asphalt concrete pavement shall be cut and removed to a neat circle,
6 the diameter of which shall equal the outside diameter of the manhole frame
7 plus 2 feet. The existing material surrounding the frame shall be removed
8 to a minimum depth of 8 inches below finished grade, or as necessary to
9 complete the adjustment. Excavations in excess of 8 inches below finished
10 grade shall be backfilled with crushed surfacing top course compacted to a
11 minimum of 95 percent density. Starting at 8 inches below finished grade,
12 Class 3000 cement concrete shall be placed to fill the entire volume of the
13 excavation up to within a minimum of 2 inches, and a maximum of 3 inches
14 of the finished pavement surface.
15

16 The concrete, the edges of the asphalt concrete pavement, and the outer
17 edge of the casting shall be painted with hot asphalt cement. Asphalt
18 concrete shall then be placed and compacted with hand tampers and a
19 patching roller.
20

21 The completed patch shall match the finished grade for uniformity of grade.
22 The joint between the patch and the pavement shall then be painted with
23 hot asphalt cement or asphalt emulsion and shall be immediately covered
24 with dry paving sand before the asphalt cement solidifies.
25

26 Surrounding surfaces that are damaged during construction shall be
27 restored by the Contractor.
28

29 **7-05.4 Measurement**

30

31 Section 7-05.4 is supplemented with the following:
32

33 (*****)

34 No separate measurement will be made for sawcutting, excavation, waste
35 haul, crushed surfacing top course, concrete, HMA patch, or surface
36 restoration, which shall include in the unit Contract price for "Adjust Catch
37 Basin" and "Adjust Manhole".
38

39 "Stormwater Treatment Vault" per each.
40

41 "Stormwater Treatment Catch Basin", per each.
42

43 Measurement for structures will be per each.
44

SPECIAL PROVISIONS - Continued

1 No measurement will be made for structure excavation, foundation material,
2 native material, backfill, or bedding material and shall be incidental to the
3 structure that is being installed.

4
5 Measurement for removal and replacement of unsuitable foundation
6 material will be as specified for “Extra Excavation” and “Foundation
7 Material”, per Section 7-08.4 of these Specifications.

8
9 No separate measurement for payment will be made for Kor-N-Seal boots.

10
11 No measurement will be made for connecting new or existing pipe to
12 structures, or for core drilling if necessary.

13
14 No measurement will be made for connecting existing pipe to new drainage
15 structures.

16
17 No measurement will be made for the lump sum item “Chamber System”.
18 The limits of the “Chamber System” shall be all piping, structures, and
19 materials downstream of the Stormwater Treatment Catch Basin.

20
21 **7-05.5 Payment**

22
23 The first paragraph is supplemented with the following:

24
25 (*****)

26 The unit contract price per each for “Adjust Catch Basin” and “Adjust
27 Manhole” shall include all costs to adjust the existing structures to the
28 finished grade including, but not limited to, sawcutting, excavation, waste
29 haul, furnishing and installing adjustment rings and blocks, crushed
30 surfacing top course, HMA patch, concrete collars and surface restoration.
31 The cost for temporary or other adjustment not to final grade shall be
32 considered incidental to the Project and as such merged into the items bid.

33
34 “Catch Basin Type 1”, per each.

35
36 The unit contract price per each for various items specified above shall be
37 full compensation for furnishing all labor, tools, equipment, and materials
38 necessary for its complete installation, including but not limited to, all
39 structure excavation, dewatering (if required), foundation and crushed
40 surfacing backfill material, compaction, connection to new pipes,
41 connection to existing pipes, water tight couplings, adjustment risers,
42 disposal of excess backfill material, frame, and grate regardless of type,
43 grout and cleaning, and testing.

44

SPECIAL PROVISIONS - Continued

1 “Stormwater Treatment Vault”, per each.

2

3 “Stormwater Treatment Catch Basin”, per each.

4

5 The unit Contract price per each for the item above shall be full pay for
6 furnishing and installing the structure, including all structure excavation;
7 furnishing and installing backfill around the structure; dewatering,
8 connecting new or existing pipe to the structure; and media, internal
9 components, grates, concrete collars, internal piping or other
10 appurtenances for a fully operational system per the manufacturer’s
11 requirements. The unit Contract price per each shall also include two
12 maintenance visits by the manufacturer to each structure for 1 year after
13 installation.

14

15 “Chamber System”, lump sum.

16

17 The lump sum price for the “Chamber System” shall be full pay for all
18 materials, tools, and labor to install the complete and functional StormTech
19 Chamber system in accordance with the Plans, these Specifications and
20 the manufacturer’s recommendations. The materials and labor include, but
21 are not limited to, shop drawing preparation and materials submittals,
22 excavation, geotextile fabric, bedding and backfill material, drain rock,
23 compaction, subsurface infiltration chamber units, end caps, pipe
24 connections, manifold systems, risers, standpipes, grates, couplings, catch
25 basins, lids, elbows, storm sewer pipe, cleanup, and all other materials and
26 labor necessary to construct a complete and functional system downstream
27 of the Stormwater Treatment Catch Basin.

28

29 The unit Contract price per each for all other structures installed under
30 Section 7-05 of the Standard Specifications shall include the frame and
31 grate, as described on the Plans.

32 **7-08 GENERAL PIPE INSTALLATION REQUIREMENTS**

33

34 **7-08.1 Description**

35

36 Section 7-08.1 is supplemented with the following:

37

38 (*****)

39 This information shall cover the general requirements for installing storm
40 sewers and underdrains. The Contractor shall also follow all provisions of
41 Section 7-01 (Drains), Section 7-04 (Storm Sewers), and 1-07.23 (Public
42 Convenience and Safety) as it applies to the specific kind of work.

SPECIAL PROVISIONS - Continued

1 **7-08.2 Materials**

2

3 Section 7-08.2 is supplemented with the following:

4

5 (*****)

6 The Contractor shall use bank run gravel for trench backfill as specified in
7 Section 9-03.19 of the Specifications for pipe installation and all other
8 excavations completed within the driving surface and roadway shoulder.

9

10 Bedding materials shall be crushed surfacing top course (CSTC) per
11 Section 9-03.9(3) of the Standard Specifications.

12

13 Foundation material shall meet the requirements of Ballast per
14 Section 9-03.9(2).

15

16 **7-08.3 Construction Requirements**

17

18 Section 7-08.3 is supplemented with the following:

19

20 (*****)

21 Toning wire is required and shall be UL-listed, Type UF, 14-gauge copper
22 taped to the top of the pipe to prevent movement during backfilling. The wire
23 shall be laid loosely enough to prevent stretching and damage. The wire
24 shall be wrapped to a convenient accessible location within each manhole,
25 vault, valve box, etc.

26 **7-08.3(1) Excavation and Preparation of Trench**

27

28 **7-08.3(1)A Trenches**

29

30 Section 7-08.3(1)A is supplemented with the following:

31

32 (*****)

33 Where unsuitable material (Extra Excavation), as determined by the
34 Engineer, is encountered in the trench subgrade below that elevation
35 required for the installation of the pipe bedding, it shall be removed to the
36 depth and limits specified by the Engineer and considered "extra
37 excavation". Material to replace unsuitable material that is removed from
38 the trench shall be trench foundation material specified in Section 7-08.2.
39 Construction geotextile for soil stabilization shall be installed to completely
40 encompass the fill material.

41

SPECIAL PROVISIONS - Continued

1 Actual trench width shall not exceed maximum pay limits as shown on the
2 Plans. The Contractor shall use shoring to minimize trench widths as
3 specified in 7-08.3(1)B.

4
5 Unsuitable material for extra excavation removed from the trench shall be
6 hauled to a waste site.

7
8 All excavated material shall be loaded directly into trucks and hauled to a
9 permitted disposal site obtained by the Contractor. Stockpiling of excavated
10 material at the project site will not be allowed.

11
12 The Contractor shall make its own estimate of the kind and extent of the
13 various materials that will be encountered in the excavation.

14 **7-08.3(1)B Shoring**

15
16 Add the following new sections:

17
18 (*****)

19 **7-08.3(1)B(1) General** **New Section**

20
21 This section specifies requirements for excavation support systems
22 (Shoring or Extra Excavation Class B) for excavation of trenches and open
23 excavations greater than 4 feet in depth.

24
25 Where sheet piling, shoring, sheeting, bracing, or other supports are
26 necessary, the items shall be furnished, placed, maintained, and except as
27 shown or specified otherwise, removed.

28
29 The design, installation and removal of any and all excavation support are
30 the sole responsibility of the Contractor. A Geotechnical Report provided in
31 the appendices advise that excavation support is necessary in view of the
32 subsurface conditions at the site. In conjunction with its obligations under
33 Section 2-09.3(1)G – Dewatering, Contractor shall conduct its own
34 independent investigation and evaluation of the subsurface conditions
35 at the site and shall rely on such independent investigation / verification
36 in designing and installing the excavation support requirements. The
37 Contract Documents do not contain any specific plans or details for
38 excavation support as such decisions lie solely with the Contractor. The
39 Geotechnical Report in the appendices do not relieve the Contractor of its
40 sole responsibility to investigate and verify the subsurface conditions and
41 design, install, and remove excavation support as may be needed.

42

SPECIAL PROVISIONS - Continued

1 The term Excavation Support as used herein has the same meaning as the
2 term Shoring in WAC 296-155-650.

3 **7-08.3(1)B(2) Execution** **New Section**

4
5 1. General
6 Design, provide, and maintain shoring, sheeting, and bracing as
7 necessary to support the sides of excavations and to prevent
8 detrimental settlement and lateral movement of existing facilities,
9 embankments, adjacent property, and completed Work.

10
11 2. Removal of Excavation Support
12 Do not begin to remove excavation support until it can be removed
13 without damage to existing facilities, completed work, or adjacent
14 property.

15
16 3. Trenches
17 Where trench excavation is deeper than 4 feet, the Contractor shall
18 construct and maintain safety shoring systems that meet the
19 requirements of the Washington Industrial Safety and Health Act,
20 Chapter 49.17 RCW and Chapter 296-155 WAC, Part N, and the
21 minimum requirements/prohibitions described in this Section.

22
23 If shallow groundwater causes excessive trench caving or
24 accumulation of water, temporary steel shoring or equivalent means
25 shall be installed.

26
27 4. Utility Penetrations in Excavation Support System
28 Contractor shall implement measures to prevent soil loss and control
29 water seepage through utility penetrations in the excavation support
30 system.

31 **7-08.3(2) Laying Pipe**

32
33 Add the following new section:

34
35 (*****)
36 **7-08.3(2)J Dewatering Trenches** **New Section**

37
38 Trench dewatering shall conform to requirements of Section 2-09.3(1)G.

39
40 All "Normal Trench Dewatering" work associated with maintaining a trench
41 suitable for pipeline construction will be incidental and included in the other
42 items of work. "Normal Trench Dewatering" is defined as dewatering

SPECIAL PROVISIONS - Continued

1 methods occurring in or directly adjacent to the trench, including trash
2 pumps, sump pumps, or other methods in the excavated areas. "Normal
3 Trench Dewatering" does not include a dewatering system such as well
4 points, well screens, or deep wells as required by Section 2-09.3(1)G.

5 **7-08.3(3) Backfilling**

6

7 Section 7-08.3(3) is supplemented with the following:

8

9 (*****)

10 Backfilling and surface restoration shall closely follow the installation of
11 pipe, so that not more than 100 feet is left of the trench open at any time
12 during construction without approval of the Engineer. When public safety
13 concerns exist, the Engineer may require more stringent backfilling
14 standards. Selected backfill material shall be placed and compacted around
15 and under the pipe by hand tools to a height of 6 inches above the top of
16 the pipe. The remaining backfill shall be compacted to 95 percent of the
17 maximum density in the roadway prism and shall be satisfactorily
18 demonstrated to the Engineer by density tests per the WSDOT Standard
19 Specifications for Road, Bridge, and Municipal Construction,
20 Section 2-03.3(14)D.

21

22 Add the following new section:

23

24 (*****)

25 **7-08.3(3)A Vertical Clearance Between Utility Lines New Section**

26

27 Where the vertical clearance between adjacent storm drainage lines, water
28 lines, sanitary sewer lines, or casings is 2 to 6 inches, an ethylene vinyl
29 acetate pad, Rubatex Laboratories R-5010-A, or an approved equal, is
30 required. The pad shall be 3 feet by 3 feet by 2.5 inches minimum, and
31 placed between the sanitary sewer pipe and the other utility pipe. All costs
32 necessary to furnish and install the pad shall be considered incidental to
33 pipe laying.

34 **7-08.4 Measurement**

35

36 The first, second, and fourth paragraphs of Section 7-08.4 are replaced with the
37 following:

38

39 (*****)

40 No measurement shall be made for protecting existing utilities and services,
41 trench excavation, disposal of unsuitable backfill, native material used as
42 trench backfill above the pipe zone bedding, and compaction of backfill.

SPECIAL PROVISIONS - Continued

1 Section 7-08.4 is supplemented with the following:

2

3 (*****)

4 Measurement for removal of unsuitable material below the pipe zone
5 bedding, as directed by the Engineer, will be by "Extra Excavation" by the
6 cubic yard of material actually removed below the pipe bedding in
7 accordance with the standard trench width neat lines shown on the Plans.

8

9 Measurement for pipe will be by the linear foot of pipe laid and successfully
10 tested and shall be along the centerline of the pipe through fittings.
11 Measurement will be to the nearest foot.

12

13 No measurement will be made for trench excavation including haul.

14

15 Measurement for foundation material will be by the ton of material required
16 to fill the void made by extra excavation and shall be based on neat line
17 width of trench and depth and length as computed by the Contracting
18 Agency's Representative.

19

20 No measurement will be made for construction geotextile but shall be
21 considered incidental to the unit price for "Foundation Material".

22

23 No measurement will be made for bank run gravel when imported for use
24 as trench backfill above the pipe zone.

25

26 No specific unit of measurement shall apply to the lump sum item of
27 "Shoring or Extra Excavation Class B".

28

29 **7-08.5 Payment**

30

31 Section 7-08.5 is supplemented with the following:

32

33 (*****)

34 Payment will be made at the unit contract price for such of the following bid
35 items as are included in the Bid Form:

36

37 "Extra Excavation", per cubic yard.

38

39 "Foundation Material", per ton.

40

41 The unit contract price for "Extra Excavation" shall include all costs to
42 remove excavated material, haul, and dispose of the material.

43

44 The unit contract price for "Foundation Material" will be full compensation
45 for the costs of all labor, tools, equipment, and materials necessary or
46 incidental to furnish, and haul, place, and compact the material specified.

SPECIAL PROVISIONS - Continued

1 Trench Backfill shall be considered incidental to the unit cost for the various
2 utilities per linear foot.

3

4 "Shoring or Extra Excavation Class B", per lump sum.

5

6 The lump sum contract price for "Shoring or Extra Excavation Class B" shall
7 be full pay for all labor, materials, tools, and equipment, and other incidental
8 costs to provide a complete system of trench shoring in compliance with
9 WISHA, Chapter 47.19 RCW and Section 7-08.3(1)B. The lump sum
10 contract price shall include: designing, furnishing, installing, maintaining,
11 and removing sheet piles, trench boxes, cribbing, and cofferdams, or other
12 means necessary to support trench and excavation walls as required.
13 Design, installation, and maintenance of all shoring systems shall be the
14 complete and sole responsibility of the Contractor. This bid item shall be
15 accomplished in accordance with Divisions 1, 2, and 7 of the Standard
16 Specifications and Special Provisions. Bidder's attention is directed to the
17 following laws and regulations:

18 1. Chapter 39.04.180 of the Revised Code of Washington (RCW).

19 2. Part N of Chapter 296-155 of the Washington Administrative Code
20 (WAC).

21 3. Chapter 49.17 of RCW (Washington Industrial Safety and Health
22 Act).

23 4. 29 CFR 1923 of OSHA.

24

25 Failure to comply with this shall be considered conclusive evidence that the
26 bid is non-responsive and, therefore, subject to rejection.

27

END OF DIVISION 7

1 **DIVISION 8**

2
3 **MISCELLANEOUS CONSTRUCTION**

4 **8-01 EROSION CONTROL AND WATER POLLUTION CONTROL**

5
6 **8-01.1 Description**

7
8 Section 8-01.1 is supplemented with the following:

9
10 (*****)

11 This work also consists of preparing the Erosion Control Plan, inspecting
12 water pollution and erosion control items, preparation of the Stormwater
13 Pollution Prevention Plan (SWPPP), transfer of the EPA Construction
14 Stormwater General Permit from the Contracting Agency to the Contractor,
15 documenting, and testing stormwater discharge.

16
17 **8-01.3 Construction Requirements**

18
19 **8-01.3(1) General**

20
21 Section 8-01.3(1) is supplemented with the following:

22
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 an
36 appropriate rate (e.g., perennial rye applied at approximately 80 pounds per
37 acre).

38
39 At no time shall more than 1 foot of sediment be allowed to accumulate
40 within a catch basin. All catch basins and conveyance lines shall be cleaned
41 at a time designated by the Project Construction Inspector. The cleaning
42 operation shall not flush sediment-laden water into the downstream system.
43 The cleaning shall be conducted using an approved vacuum truck capable

SPECIAL PROVISIONS - Continued

1 of jet rodding the lines. The collection and disposal of the sediment shall be
2 the responsibility of the Contractor at no cost to the Tribe.

3
4 Erosion control materials shall be installed prior to the start of any other
5 work on the Project.

6
7 Following completion of the project, the Contractor shall remove all erosion-
8 control materials and dispose of them off-site. Any areas disturbed by the
9 installation and/or removal of temporary erosion control materials shall be
10 restored by the Contractor as directed by the Engineer at no cost to the
11 Tribes.

12
13 The Contractor shall meet all EPA Construction Stormwater General Permit
14 requirements including, but not limited to inspecting, documentation,
15 testing, and notifications. Prior to any work the Contractor shall sign and
16 submit the EPA "Transfer of Coverage" form which transfers responsibility
17 of the site from the Contracting Agency to the Contractor for stormwater
18 runoff.

19
20 The Contractor shall prepare and submit a Stormwater Pollution Prevention
21 Plan, in conformance with EPA requirements, to the Contracting Agency
22 before any Work begins.

23
24 **8-01.3(1)A Submittals**

25
26 Section 8-01.3(1)A is supplemented with the following:

27
28 (*****)

29 The Contractor shall be required to prepare, maintain, and update the
30 erosion control plan, as may be required during the course of the Project.
31 The erosion control plan and details included are provided solely for the
32 establishment of basic erosion control measures and are not intended to be
33 a complete plan.

34
35 **8-01.3(2) Temporary Seeding and Mulching**

36
37 **8-01.3(2)B Temporary Seeding**

38
39 Section 8-01.3(2)B is supplemented with the following:

40
41 (*****)

42 Seed of the following composition, proportion, and quality shall be applied
43 at a rate of 200 pounds per acre on areas requiring temporary seeding:

SPECIAL PROVISIONS - Continued

	<u>Kind and Variety of Seed in Mixture</u>	<u>Pounds of Pure Live Seed (PLS) Per Acre</u>
1		
2		
3		
4	Creeping Red Fescue	80
5	Perennial Ryegrass	80
6	Highland Colonial Bentgrass	20
7	White Dutch Clover	<u>20</u>
8	Total	200
9		

Sufficient quantities of 18-6-12 fertilizer shall be applied at 650 pounds per acre, 72 percent of nitrogen applied per acre shall be derived from isobutylidene diurea (IBDU), cyclo-di-urea (CDU), or a time release, polyurethane coated source with a minimum release time of 6 months. The remainder may be derived from any source.

The fertilizer formulation and application rate shall be approved by the Engineer before use.

8-01.3(9) Sediment Control Barriers

8-01.3(9)D Inlet Protection

Section 8-01.3(9)D is supplemented with the following:

(*****)

All catch basins grates within the project limits and adjacent areas shall have inlet protection installed to prevent sedimentation from entering the storm system. The inlet protection shall be routinely cleaned of sediment to prevent plugging. This sediment shall be regularly removed, loaded, and hauled to waste whenever it presents a potential surface accumulation problem or concern to the Tribes. Any damage caused by the Contractor's failure to keep the erosion materials maintained shall be borne by the Contractor alone.

Add the following new section:

(*****)

8-01.3(17) Trench Dewatering

New Section

All "Normal Trench Dewatering" work associated with maintaining an excavation or trench suitable for construction will be included in the unit price of the utility being installed. "Normal Trench Dewatering" is defined as dewatering methods occurring in or directly adjacent to the trench, including trash pumps, sump pumps, or other methods in the excavated areas.

SPECIAL PROVISIONS - Continued

1

2

Discharge Location

3

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 manner as will cause no inconvenience whatsoever to the Owner, Engineer, adjacent property owners, or to others engaged in work about the site.

4

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12

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, biker tank, siltation ponds, filter fences, screens, and other methods as required.

13

14

15

16

17

18

8-01.4 Measurement

19

Section 8-01.4 is replaced with the following:

20

21

22

(*****)

23

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

24

25

26

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.

27

28

29

30

8-01.5 Payment

31

Section 8-01.5 is replaced with the following:

32

33

34

(*****)

“Erosion Control and Water Pollution Prevention”, lump sum.

35

36

37

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:

38

39

40

41

42

43

1. Erosion and sedimentation control installation and maintenance and replacement as required until project completion and approval.

44

SPECIAL PROVISIONS - Continued

- 1 2. Maintenance of catch basins, storm drains, ditches, and other
2 drainage courses, including immediate removal and disposal of
3 accumulated sedimentation.
4 3. Removal of erosion and sediment control best management
5 practices upon completion of the project.
6 4. Installation of jute mat and any additional work deemed necessary
7 by the Engineer to control erosion and water pollution.

8 **8-02 ROADSIDE RESTORATION**

9

10 **8-02.1 Description**

11

12 Section 8-02.1 is supplemented as follows:

13

14 (*****)

15 This Work consists of in-kind restoration of all disturbed areas between the
16 edge of pavement or curb, and the limits of construction. This Work consists
17 of replacing all landscaping on private property, including but not limited to,
18 bushes, shrubs, topsoil, bark, concrete masonry block unit retaining walls,
19 fencing, and all other restoration activity necessary to restore the property
20 to equal or better condition.

21

22 **8-02.2 Materials**

23

24 **Topsoil**

25

26 **Topsoil Type A**

27

28 Section 9-14.2(1) is supplemented with the following:

29

30 (February 25, 2021 WSDOT GSP, Option 1)

31

Topsoil Type A shall meet the following requirements:

32

- 33 1. Cation exchange capacity (CEC) of Topsoil Type A shall be a minimum
34 of 5 milliequivalents CEC/100 g dry soil (U.S. EPA 6 Method 9081).
35
36 2. Organic content greater than 8-percent but less than 15-percent as
37 measured on a dry weight basis using AASHTO T 267 Determination of
38 Organic Content in Soils by Loss on Ignition.

39

40 Topsoil Type A shall be 60 -percent to 70 -percent *** sandy *** Loam and
41 40 -percent to 30 -percent *** fine *** Compost by volume. *** Sandy ***
42 Loam shall be as defined by the US Department of Agriculture Soil
43 Classification System.

SPECIAL PROVISIONS - Continued

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45

The Contractor shall submit a Particle Size Analysis as a Type 1 Working Drawing from an independent accredited soils testing laboratory indicating the Material source and compliance with all Topsoil Type A specifications. The laboratory analysis shall be with a sample size of no less than 2 pounds.

The *** fine *** Compost shall conform to the requirements of Section 9-14.4(8).

8-02.3 Construction Requirements

8-02.3(4) Topsoil

Section 8-02.3(4) is supplemented with the following:

(*****)
The costs of removing all excess material and debris shall be included with the Project and as such merged in the various items bid.

Cultivate 4 inches of imported topsoil Type A into the existing subgrades to a minimum transition depth of 6 inches in areas to be seeded with topsoil, in sod areas, in planting strip areas, and in fill slopes to be planted, as shown on the Plans.

8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation

8-02.3(5)A Seeding Area Preparation

Section 8-02.3(5)A is supplemented with the following:

(*****)
Finished grades of seeding areas shall allow for soil preparation and mulch. Finished grades shall be as follows:

Seeding Areas: 1 inch below all walks, curbs, and/or hard-surface edges.

Perform all excavation and backfill necessary to provide finish grade of landscape areas as indicated and specified. Remove from site excess and unsuitable material. Landscape areas shall be graded to lines, grades, and cross sections indicated. Grades shall meet the following:

- 1. Maximum 2:1 slope, unless otherwise indicated.
- 2. Smooth and round off surfaces at abrupt grade changes.

SPECIAL PROVISIONS - Continued

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- 3. Feather grades to meet existing gradually. Rake planting areas smooth and remove surface rocks over 2-inches diameter.
- 4. Provide minimum 2 percent crown or slope in all landscape areas. The Contractor is responsible for any adverse drainage conditions that may affect plant growth, unless he contacts the Project Engineer immediately indicating any possible problem.

Finish grades shall be inspected and accepted by the Tribes prior to commencing planting or seeding work.

The costs of removing all excess material and debris shall be included with the Project and as such merged in the various items bid.

Final Acceptance

Final acceptance by the Tribes for soil preparation will be contingent on the approval of all inspections, and that the soil preparation is consistent with these specifications and with the Plans.

8-02.3(9) Seeding, Fertilizing, and Mulching

8-02.3(9)B Seeding and Fertilizing

Section 8-02.3(9)B is supplemented with the following:

(September 3, 2019 WSDOT GSP, Option 1)

Seed of the following mix, rate, and analysis shall be applied at the rates shown below on all areas requiring seeding within the project:

Kind and Variety of Seed in Mixture	Pounds of Pure Live Seed (PLS) Per Acre
Creeping Red Fescue	80
Perennial Ryegrass	80
Highland Colonial Bentgrass	20
White Dutch Clover	<u>20</u>
Total	200

Source Identified seed shall be generation four or less. Non-Source Identified seed shall meet or exceed Washington State Department of Agriculture Certified Seed Standards and be from within the appropriate genetic zones of the *** Puget Lowland *** Ecoregion(s) as defined by the US Environmental Protection Agency (EPA).

SPECIAL PROVISIONS - Continued

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The seed certification class shall be Certified (blue tag) in accordance with WAC 16-302 and meet the following requirements:

- Prohibited Weed 0% max.
- Noxious Weed 0% max.
- Other Weed 0.20% max.
- Other Crop 0.40% max.

The Contractor shall document all Source Identified seed by providing the Association of Official Seed Certifying Agents (AOSCA) yellow seed label for each species in the mix. Site Identification Logs can be supplied for collections where the AOSCA yellow label is not available.

8-02.5 Payment

Section 8-02.5 is supplemented with the following:

(*****)
“Topsoil Type A”, per acre.

The unit Contract price per acre for “Topsoil Type A” shall be full payment for all costs for the specified Work.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

Section 8-04.3 is supplemented with the following:

(*****)
New curb and gutter will not be placed until forms have been checked and approved for line, grade, and compaction by the Construction Inspector.

The curb and gutter shall be protected against damage or defacement of any kind until it has been accepted by the Construction Inspector.

SPECIAL PROVISIONS - Continued

1 **8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES**

2

3 **8-06.1 Description**

4

5 Section 8-06.1 is supplemented with the following:

6

7 (*****)

8 This work consists of constructing cement concrete driveways in
9 accordance with the Standard Plans and in details shown in the Contract
10 Plans and in conformity to the lines and grades shown in the Contract Plans
11 or as established by the Engineer.

12

13 **8-06.3 Construction Requirements**

14

15 Section 8-06.3 is supplemented with the following:

16

17 (*****)

18 Driveways shall not be poured until the limits of the driveway have been
19 approved by the Tulalip Tribes and forms have been set and approved.

20

21 Driveway finish shall be broom finish.

22

23 Driveways shall be constructed to the minimum depths as shown in the
24 Contract Plans.

25

26 **8-06.4 Measurement**

27

28 Section 8-06.4 is supplemented with the following:

29

30 (*****)

31 Measurement for "Cement Conc. Driveway" will be by the square yard from
32 the back of curb to the garage or limits as directed by the Tulalip Tribes.

33

34 **8-06.5 Payment**

35

36 Section 8-06.5 is supplemented with the following:

37

38 (*****)

39 "Cement Conc. Driveway," per square yard.

40

41 The unit contract price per square yard for "Cement Conc. Driveway" shall
42 be full compensation for all labor, tools, equipment, materials, and
43 incidentals required to perform the work as specified including, but not
44 limited to, forming, joint material, furnishing and installing the concrete, wire

SPECIAL PROVISIONS - Continued

1 mesh reinforcement, finishing, protecting the work, temporary steel plating,
2 and material testing, regardless of entrance type. Payment for each item
3 shall be paid only once per driveway.

4 **8-14 CEMENT CONCRETE SIDEWALKS**

5

6 **8-14.3 Construction Requirements**

7

8 Section 8-14.3 is supplemented with the following:

9

10 (*****)

11 The Contractor shall receive approval of the Engineer for the line and grade
12 of the curb ramps being installed prior to pouring the concrete. The
13 Contractor shall have the subgrade prepared and formwork in place at least
14 24 hours prior to pouring concrete. The Engineer shall review the line and
15 grades of the ramps and suggest minor adjustments as necessary. Minor
16 adjustments shall be considered as changes to the Plan elevations or
17 offsets of 3 inches or less. The work to revise the lines, formwork and
18 subgrade for minor adjustments shall be included with the bid. If the lines
19 and formwork are not in conformance with the Plans all adjustments,
20 regardless of size, shall be at the sole expense of the Contractor.
21 Adjustments to the lines and grades shall not constitute a basis for claims
22 for additional contract time or expenses.

23 **8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, INTELLIGENT** 24 **TRANSPORTATION SYSTEMS, AND ELECTRICAL**

25

26 **8-20.1 Description**

27

28 Section 8-20.1 is supplemented with the following:

29

30 (*****)

31 Work consists of:

32

- 33 • Upgrading and expanding existing illumination system(s) on 81st St
34 NE, 29th Dr NE and 30th Dr NE. Contractor's work includes trench
35 and backfill, furnishing and installing conduit with pull tape/rope, and
36 coordination with Snohomish PUD.
- 37
- 38 • Trench, backfill, furnishing and installing conduit with pull tape/rope
39 and coordination with Snohomish PUD for conduits under Totem
40 Beach Road, as depicted on the Plans.

41

SPECIAL PROVISIONS - Continued

1 **8-20.1(1) Regulations and Code**

2

3 Section 8-20.1(1) is supplemented with the following:

4

5 (*****)

6 All electrical equipment shall conform to the standards of the National
7 Electrical Manufacturers Association (NEMA), FHWA IP-78-16, the Radio
8 Manufacturers Association, the American Society for Testing and Materials
9 (ASTM), the American Association of State Highway and Transportation
10 Officials (AASHTO), the American National Standards Institute (ANSI), the
11 National Electrical Safety Code (NESC), the International Municipal Signal
12 Association (IMSA), whichever is applicable, and to other codes listed
13 herein.

14

15 Where applicable, materials shall conform to the latest requirements of the
16 Washington State Department of Labor and Industries and Snohomish
17 County PUD.

18

19 **8-20.1(2) Industry Codes and Standards**

20

21 Section 8-20.1(2) is supplemented with the following:

22

23 (*****)

24 International Municipal Signal Association (IMSA), Post Office
25 Box 53911115 North Main Street, Newark, NJ 14513.

26 National Electrical Safety Code (NESC), Secretary NESC, NESC
27 Committee, IEEE Post Office Box 1331445 Hoes Lane, Piscataway,
28 NJ 08855-1331.

29

30

30 **8-20.2 Materials**

31

32 Section 8-20.2 is supplemented with the following:

33

34 (*****)

35 Snohomish PUD will furnish and install street light poles, arms and fixtures.
36 Snohomish PUD will also install wiring and make connections to existing
37 connection points identified on the Plans.

38

39 Trench bedding and backfill material shall be per Snohomish PUD
40 requirements.

41

SPECIAL PROVISIONS - Continued

1 **8-20.2(1) Equipment List and Drawings**

2

3 Section 8-20.2(1) is supplemented with the following:

4

5 (*****)

6 Manufacturer's data for materials proposed for use in the Contract that
7 require approval shall be submitted in one complete package.

8

9 **8-20.3 Construction Requirements**

10

11 **8-20.3(1) General**

12

13 Section 8-20.3(1) is supplemented with the following:

14

15 (*****)

16 **Electrical Order of Work**

17 Work shall be coordinated so that existing illumination systems remain in
18 operation at all times.

19

20 **Equipment to Remain**

21 Care shall be taken to protect and preserve all existing equipment that is
22 not being removed under this Contract. Any existing equipment to remain
23 that is damaged by the Contractor will be repaired or replaced to the
24 Engineer's satisfaction, at no additional expense to the Contracting Agency.

25

26 **Utility Coordination**

27 Contractor shall coordinate with Snohomish PUD for all street light system
28 work and PUD trench inspection. Snohomish PUD will install all new direct-
29 bury street light poles, make all modifications to existing street light poles,
30 inspect trench prior to backfill, pull new wire, and make connections of new
31 street lights to existing system.

32

33 Contractor shall trench, install conduit, and backfill per Snohomish PUD
34 requirements (Section 4D and Figures 4-1 to 4-2 of Snohomish County PUD
35 Electrical Service Requirements for Underground Service).

36

37 **8-20.3(2) Excavating and Backfilling**

38

39 Section 8-20.3(2) is supplemented with the following:

40

41 (*****)

42 The Contractor shall supply all trench necessary for the complete and
43 proper installation of the illumination system. Trenches shall extend from

SPECIAL PROVISIONS - Continued

1 location of new street lights to points of service, as shown on the Plans.
2 Trenching shall conform to the following:

3
4 Trenching and backfill methods and materials shall be per Snohomish PUD
5 requirements (Section 4D and Figures 4-1 to 4-2 of Snohomish County PUD
6 Electrical Service Requirements for Underground Service). Contractor shall
7 call Snohomish PUD and arrange for inspection of open trench and shall
8 not backfill trench until trench has been inspected and accepted by
9 Snohomish PUD.

10
11 In paved areas, edges of the trench shall be saw cut the full depth of the
12 pavement and saw cuts shall be parallel. All trenches for placement of
13 conduit shall be as straight as practical to provide a minimum of pavement
14 disturbance. The existing pavement shall be removed in an approved
15 manner. The trench bottom shall be graded to provide a uniform grade.

16
17 Trenches located under existing traveled ways shall be restored with
18 crushed surfacing top course and asphalt concrete pavement to match the
19 existing/proposed adjacent pavement section. The asphalt concrete surface
20 cuts shall be given a tack coat of asphalt emulsion (CSS-1) or approved
21 equal immediately before resurfacing, applied to the entire edge and full
22 depth of the pavement cut. Immediately after compacting the new asphalt
23 surface to conform to the adjacent paved surface, all joints between new
24 and original pavement shall be painted with asphalt emulsion (CSS-1), or
25 approved equal, and covered with dry paving sand before the asphalt
26 emulsion solidifies.

27
28 Surfaces impacted by trenching shall be restored to match their condition
29 as they existed prior to Contractor's trenching and construction activities.

30
31 **8-20.3(5) Conduit**

32
33 Section 8-20.3(5) is supplemented with the following:

34
35 (*****)

36 All conduits shall be PVC Schedule 40, sizes as noted on the Plans.

37
38 Conduit installation methods and materials shall be per Snohomish PUD
39 requirements (Section 4E and Figures 4-1 to 4-2 of Snohomish County PUD
40 Electrical Service Requirements for Underground Service).

41
42 All conduits shall include pull rope or pull tape. The continuous length of
43 knot-free 1/4-inch polypropylene pull rope, or Herculine P1250W 1/2-inch

SPECIAL PROVISIONS - Continued

1 polyester pull tape, shall be installed by the Contractor with a 2-foot tail at
2 each end for all conduits.

3

4 All conduits shall be installed with plugs, which shall not be removed until
5 installation of conductors by Snohomish PUD.

6

7 **8-20.3(17) “As Built” Plans**

8

9 Section 8-20.3(17) is supplemented with the following:

10

11 (*****)

12 Upon completion of the Project, the Contractor shall furnish an “as-built”
13 drawing showing all pole locations and conduit runs, with a special symbol
14 identifying those items that have been changed from the original Contract
15 Plans.

16

17 The “as-built” plans shall also indicate the horizontal and vertical location of
18 all existing underground utilities encountered during construction of the
19 project.

20

21 **8-20.4 Measurement**

22

23 Section 8-20.4 is supplemented with the following:

24

25 (*****)

26 “Illumination System Modifications, Complete” will be measured per lump
27 sum.

28

29 “PUD Conduit Installation, Complete” will be measured per lump sum.

30

31 **8-20.5 Payment**

32

33 Section 8-20.5 is supplemented with the following:

34

35 (*****)

36 “Illumination System Modifications, Complete”, lump sum.

37

38 The lump sum Contract price for “Illumination System Modifications,
39 Complete” shall be full pay for illumination system related Work, as shown
40 in the Plans, and herein specified, including excavation, backfilling,
41 furnishing, and installing conduit with pull tape/rope, restoring facilities
42 destroyed or damaged during construction and coordination and
43 accommodation of related Snohomish PUD inspection and installation
44 work. All additional materials and labor, not shown in the Plans or called for

SPECIAL PROVISIONS - Continued

1 herein and which are required to complete the illumination conduit systems,
2 shall be included in the lump sum Contract price.

3

4 "PUD Conduit Installation, Complete", lump sum.

5

6 The lump sum Contract price for "PUD Conduit Installation, Complete" shall
7 be full pay for Work installing conduit at Totem Beach Road (for Snohomish
8 PUD), as shown in the Plans, and herein specified, including excavation,
9 backfilling, furnishing, and installing conduit with pull tape/rope, restoring
10 facilities destroyed or damaged during construction, and coordination and
11 accommodation of related Snohomish PUD inspection and installation
12 work. All additional materials and labor, not shown in the Plans or called for
13 herein and which are required to complete the illumination conduit systems,
14 shall be included in the lump sum Contract price.

15

16 **8-21 PERMANENT SIGNING**

17

18 **8-21.3 Construction Requirements**

19

20 Section 8-21.3 is supplemented with the following:

21

22 (*****)

23 The Contractor shall protect all existing signs within the project limits.

24

END OF DIVISION 8

25

SPECIAL PROVISIONS - Continued

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DIVISION 9

MATERIALS

9-05 DRAINAGE STRUCTURES AND CULVERTS

9-05.20 Corrugated Polyethylene Storm Sewer Pipe, Couplings, and Fittings

Delete the first sentence of the first paragraph and replace with the following:

(*****)

Corrugated polyethylene storm sewer pipe, couplings, and fittings shall meet the requirements of AASHTO M 294 Type S.

END OF DIVISION 9

SPECIAL PROVISIONS - Continued

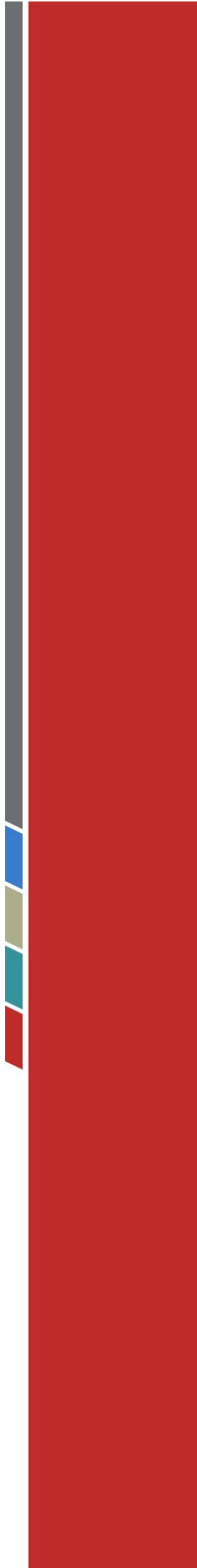
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Appendix A

Geotechnical Reports





October 18, 2021
HWA Project No. 2021-036-21

PARAMETRIX
719 2nd Ave, Suite 200
Seattle, WA 98104

Attn: Austin Fisher, P.E.

Subject: **Tulalip Road Preservation – 28th Drive NW Improvements
Geotechnical Investigation
Tulalip, Washington**

Mr. Fisher:

In accordance with your request, HWA GeoSciences Inc. (HWA) completed a field investigation consisting of logging the drilling of 3 boreholes along 28th Drive NW in the Tulalip Indian Reservation in Tulalip, Washington. In addition, we performed laboratory testing on select samples retrieved from the boreholes. This report summarizes the results of our field investigation and laboratory testing and provides recommendations for the design of seepage interceptor trenches (French drains) and pavement reconstruction.

PROJECT DESCRIPTION

We understand that this project will reconstruct the pavement, add two new curb ramps, four new catch basins, storm water treatment and new curb and gutter. In addition, an interceptor drain is proposed for the westside of the roadway within the middle third of the alignment to collect and convey groundwater seepage before it migrates under the roadway and softens the subgrade. An additional smaller interceptor drain is proposed for the southeast side of the roadway along a driveway. The existing roadway is surfaced with a thin layer of Hot Mix Asphalt (HMA) that is in poor condition. The location of the project site is shown on Figure 1, Vicinity Map.

SITE CONDITIONS

28th Drive NW is a residential cul-du-sac that extends approximately 450 feet northeastward from Walter Moses Jr. Drive; a loop road that connects with Marine Drive. Review of the USGA topographic map of the Tulalip Quadrangle indicates the roadway traverses a southeast facing hillslope descending towards a marshy channel area west of Mission Creek. Relief appears to be approximately 40 feet from the intersection with Walter Moses Jr. Drive to the

turnaround. Currently, the road accommodates two-way residential traffic. In general, the pavement is in poor condition exhibiting alligator cracking throughout and numerous potholes. We understand that seasonal groundwater seepage emanating along the uphill side of the roadway (west side) has softened the road subgrade allowing the HMA to crack and potholes to form.

SUBSURFACE INVESTIGATION

Our subsurface investigation consisted of drilling three borings, designated BH-04, BH-05, and BH-06, on August 5, 2021. The borings were drilled by Holocene Drilling, Inc., of Puyallup, Washington, under subcontract to HWA, using a truck-mounted Mobile D-120 drill rig equipped with hollow stem augers. The borings were drilled to depths of about 11.5 to 20 feet below ground surface (bgs).

Standard Penetration Test (SPT) sampling was performed at 2.5 feet intervals in each boring using a 2.0-inch outside diameter split-spoon sampler driven with a 140-pound automatic hammer. During the SPT, samples were obtained by driving the sampler 18 inches into the soil with the hammer free-falling 30 inches. The number of blows required for each 6 inches of penetration were recorded. The Standard Penetration Resistance (“N-value”) of the soil is taken to be the number of blows required for the final 12 inches of penetration. If a total of 50 blows or more were recorded within a single 6-inch interval, the test was terminated, and the N-value was recorded as 50 blows for the number of inches of penetration. The N-value, provides an indication of the relative density of the granular soils and the relative consistency of the cohesive soils. SPT samples were taken right below the pavement to provide information about existing road subgrade strength. In order to collect sufficient soil sample material for laboratory testing, an oversized sampler (3.25-inch diameter) was used for much of the sampling conducted below the immediate road subgrade. As this sampler is larger in diameter and the same hammer weight was used, the blow counts recorded are higher than the typical SPT N-value.

The explorations were monitored and logged by an HWA geologist. The approximate locations of the borings were determined in the field by using a handheld GPS measuring device and is shown on the Site and Exploration Plan, Figure 2.

Soil samples obtained from the borings were classified in the field and representative portions were placed in plastic bags and taken to our Bothell, Washington laboratory for further examination and testing. In addition, pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence was recorded. The stratigraphic contacts shown on the boring logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific date and locations reported, and therefore, are not necessarily representative of other locations and times.

A legend of the terms and symbols used on the exploration logs is presented in Appendix A, Figure A-1, followed by the boring logs in Figures A-2 through A-4.

Table 1 summarizes the pavement structures encountered in the borings.

Table 1. Thickness of Pavement Layers

Designation	HMA Thickness (in.)	Aggregate Base Thickness (in.)	Subgrade Conditions
BH-04	0.5	None	Medium dense, silty sand
BH-05	2	None	Medium dense, silty sand
BH-06	1	1	Medium stiff clay

LABORATORY TESTING

Representative soil samples obtained from the drilled boreholes were taken to the HWA geotechnical laboratory for examination and testing. Laboratory tests were conducted on selected soil samples to characterize engineering properties of the soils. Laboratory tests, as described in Appendix B, included moisture content determination, grain size distribution, and Atterberg Limits. The tests were conducted in general accordance with appropriate American Society of Testing and Materials (ASTM) standards and are discussed in further detail in Appendix B. The test results are also presented in Appendix B, and/or displayed on the exploration logs in Appendix A, as appropriate.

GEOLOGY

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic Mountain ranges, composed of a complex sequence of glacial and interglacial deposits.

Geologic information for the project site was obtained from the published geologic maps for the area; *Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington* (Minard, 1985) and the *Surficial Geology, Selected Wells, and Hydrogeologic Units and Sections -Plate 1* from *Water Resources of the Tulalip Indian Reservation and adjacent areas, Snohomish County, Washington 2001-2003* (Frans and Kresch, 2004). These maps indicate that the surficial

geology within the site vicinity consists of Vashon recessional outwash, a unit of mostly clean sand with some gravel, and some beds of silts and clay, that was deposited by glacial meltwater behind the retreating Puget Lobe of the Cordilleran Ice Sheet during the latest glaciation. A portion of the geologic map depicting the project location is shown on Figure 3.

SUBSURFACE CONDITIONS

Below the thin pavement section, subsurface conditions generally consisted of recessional outwash deposits over ice contact stratified drift. Weathered glacial till was encountered below the drift in BH-06. A generalized geologic cross-section of the alignment is presented on Figure 4.

The following units were observed in the explorations performed for this study. Each major soil unit is described below, with materials interpreted as being youngest in origin and nearest to the surface described first.

Vashon Recessional Outwash: Vashon recessional outwash was encountered immediately below the pavement section in all of the borings. In BH-04, the recessional outwash consisted of medium dense, silty sand and extended to a depth of about 2.5 feet. In BH-05, the recessional outwash consisted of about 1 foot of medium dense, silty sand over about 1.5 feet of stiff clay over about 2.5 feet of stiff, organic clay. In BH-06, the recessional outwash consisted of medium stiff clay extending to a depth of about 5 feet.

Recessional outwash was deposited by glacial meltwater during ice retreat away from the ice margin, consequently this unit is not glacially overridden and therefore the sandy layers are typically permeable and a good receptor for infiltration purposes or may serve to convey shallow groundwater perched over the underlying clayey layers. The fine-grained silt/clay soils were likely deposited in a surface water body, such as a lake, and are not suitable for infiltration purposes.

Ice Contact Stratified Drift: Ice contact stratified drift was encountered immediately below the Vashon recessional outwash in all borings. Borings BH-04 and BH-05 were terminated in this deposit at depths of 14 feet and 21.5 feet, respectively. In boring BH-6, weathered glacial till was encountered below this unit at a depth of about 9 feet.

The ice contact stratified drift encountered consisted of medium dense to dense, silty/clayey sand and stiff to very stiff silt. Clean sand interbeds were observed. Bedding ranged from inches to feet thick. Ice contact stratified drift was deposited by an advancing glacier, then underwent a degree of sorting generated by contact with the retreating glacier, resulting in the stratification encountered. This unit is typically over-consolidated due to being at least partially glacially overridden and is likely to contain perched and confined groundwater within the sand beds. This unit is not suitable for infiltration.

Weathered Till: Weathered till was encountered in BH-06 underlying the ice contact stratified drift and extending to the terminal depth of the boring at 12 feet below ground surface, consisting of medium dense, gravelly, silty, sand. Till was deposited by an advancing glacier

and subsequently overridden. This unit is over-consolidated due to being glacially overridden and is relatively impermeable. Over time, the upper zone of till became weathered due to physical and chemical processes, which typically results in slightly lower soil density and increased permeability than that expected in fresh till.

Groundwater Conditions

Groundwater seepage was encountered in borings BH-04 through BH-06 at depths of 5, 11, and 11.5 feet, respectively. The alternating sand and silt stratification could result in perched water and artesian conditions at variable depths within the project area. We anticipate that groundwater levels vary seasonally, with the highest water levels in the wet winter months.

CONCLUSIONS & RECOMMENDATIONS

The results of our field investigation and laboratory testing indicate that the existing pavement structure is very thin and overlies medium dense silty sand and medium stiff to stiff silt and clay. These soils are highly moisture sensitive and provide poor support when wet. Although, the SPT blow counts indicate the subgrade is medium dense/medium stiff when undisturbed, these soils lose strength and become unstable and subject to rutting and pumping under construction traffic loads. Given the moisture susceptibility of the subsurface soils, we recommend that construction activities only occur during the dry summer months and that a suitable thickness of crushed gravel base course be constructed to provide better pavement support.

Shallow perched or springing groundwater conditions occur seasonally along the western edge of the roadway that facilitate softening of the roadway subgrade. We recommend that the shallow seepage be intercepted along the western (uphill) side of the road and conveyed to a suitable off-site discharge point.

INTERCEPTOR DRAINS

We recommend design provisions include interceptor drains along the west side of the roadway as currently proposed from approximately Sta. 11+25 to at least Sta. 13+20 and along the uphill side of the residential driveway. Drains should consist of 6-inch diameter, perforated pipe encapsulated in pervious gravel backfill, meeting the requirements for Gravel Backfill for Drains per Section 9-03.12(4) of the WSDOT *Standard Specifications* (WSDOT 2021). The gravel envelopment should be at least 6 inches thick in all directions around the pipe. The gravel backfill material should be encapsulated in a layer of non-woven geotextile meeting the requirements of WSDOT *Standard Specifications* Section 9-33.2(1) Table 1 for Moderate Survivability and Table 2 Class B. The pipe invert should be set at a depth of at least 4 feet and sloped to drain toward connection with an outlet for off-site disposal at the lower end of the

project. The trench should be backfilled with Gravel Borrow, meeting the requirements of Section 9-03.14(1) of the WSDOT *Standard Specifications*.

Seepage collection and conveyance should not be combined with local stormwater conveyance unless suitable catch basin connections eliminate the ability of the stormwater to surcharge the seepage collection system. We recommend that construction of the interceptor trench be conducted during the dry summer months. We recommend that construction of the interceptor trench and conveyance proceed uphill so that if seepage is encountered during construction the conveyance and disposal system or suitable temporary outlet is already in place.

NEW HMA PAVEMENT DESIGN

The existing pavement section is very thin and in very poor condition with no substantial base course present below the failing asphalt and needs to be reconstructed. Although traffic is minimal and predominately residential, the new pavement section needs to include an adequate thickness of HMA and CSBC. Table 2 provides our HMA design recommendations, assuming residential traffic loading with occasional garbage truck and emergency vehicle loads.

Table 2. Structure Requirements for New HMA Pavement

Material Description	Pavement Minimum Layer Thickness (inches)	WSDOT Standard Specification
HMA	3	5-04
CSBC	6	9-03.9(3)

HMA: Hot Mix Asphalt

CSBC: Crushed Surfacing Base Course

We recommend that the HMA consist of Class ½-inch and the binder consist of PG 58H-22. Recommendations are presented below for subgrade preparation and structural fill placement and compaction for pavement reconstruction. The longitudinal joint in the HMA wearing course should coincide with the centerline of the roadway and not within a travel lane.

Placement of HMA

Placement of HMA should be in accordance with Section 5-04 of the WSDOT *Standard Specifications* (WSDOT, 2021). Particular attention should be paid to the following:

- HMA should not be placed until the engineer has accepted the previously constructed pavement layers.
- HMA should not be placed on any frozen or wet surface.

- HMA should not be placed when precipitation is anticipated before the pavement can be compacted, or before any other weather conditions which could prevent proper handling and compaction of HMA.
- HMA should not be placed when the average surface temperatures are less than 45° F.
- HMA temperature behind the paver should be in excess of 240° F. Compaction should be completed before the mix temperature drops below 180° F. Comprehensive temperature records should be kept during the HMA placement.
- For cold joints, tack coat should be applied to the edge to be joined and the paver screed should be set to overlap the first mat by 1 to 2 inches.

Drainage

It is essential to the satisfactory performance of the roadway that good drainage is provided to prevent water ponding on or alongside, or accumulating beneath, the pavement. Water ponding can cause saturation of the pavement and subgrade layers and lead to premature failure. The surface of the pavement should be sloped to convey water from the pavement to appropriate drainage facilities.

EARTHWORK

Subgrade Preparation

Subgrade preparation for the proposed improvements should begin with the removal of all existing pavement, topsoil, organic-rich soils, debris and vegetation. The soils should be excavated to the design elevation and thoroughly compacted.

The exposed subgrade soils should be evaluated to assess their suitability for support of the improvements. Areas accessible to fully loaded dump trucks, or similar heavy, wheeled equipment, should be proof rolled prior to placement of structural fill. Any areas exhibiting pumping or heaving should be delineated and over-excavated to reach competent soils, as determined by the geotechnical engineer. Areas inaccessible to large equipment should be evaluated by the geotechnical engineer using a T-handle probe, or other suitable method. Areas found to be soft/loose, or unsuitable, should be over-excavated to reach competent soils. Backfill of any over-excavated areas should consist of structural fill, placed and compacted as described below.

Structural Fill Materials and Compaction

Any material used to support the pavement should consist of Crushed Surfacing Base Course (CSBC) as specified in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2021). Structural fill used to raise site grades, or backfill utility trench excavations, should consist of granular materials such as Gravel Borrow, meeting the requirements of Section 9-

03.14(1) of the WSDOT *Standard Specifications*. Based on our subsurface explorations, we do not anticipate the on-site soils will be suitable for reuse as structural fill.

A sufficient number of modified Proctor tests should be performed on the materials to be used as structural fill to properly evaluate the compaction characteristics of the materials. A Geotechnical Engineer, or their representative, should perform full-time construction monitoring of all fill placement and compaction operations. If the on-site soils are placed either too wet or too dry of optimum moisture content, or if the soils are inadequately compacted, significant settlement should be anticipated.

Structural fill soils should be moisture conditioned, placed in loose horizontal lifts less than 8-inches thick, and compacted to at least 95% of the maximum dry density (MDD) as determined using test method ASTM D1557 (modified Proctor). Achievement of proper density of a compacted fill depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted and soil moisture-density properties. In areas where limited space restricts the use of heavy equipment, smaller equipment can be used, but the soil must be placed in thin enough layers to achieve the required relative compaction. Generally, loosely compacted soils result from poor construction technique and/or improper moisture content. Soils with high fines contents are particularly susceptible to becoming too wet, and coarse-grained materials easily become too dry for proper compaction.

Temporary Excavations

Any temporary excavations deeper than 4 feet should be sloped or shored in accordance with Part N of the Washington Administrative Code (WAC) 296-155 or shored. The near-surface soils classify as Type C soils. Temporary excavations in Type C soils may be no steeper than 1.5H:1V to meet safety requirements for worker access during construction. The recommended maximum allowable temporary slope cut inclinations are applicable to temporary excavations above the water table only. Flatter slopes may be required where groundwater seepage is present.

The contractor should monitor the stability of the temporary cut slopes and adjust the construction schedule and slope inclination accordingly. The contractor should be responsible for control of ground and surface water and should employ sloping, slope protection, ditching, sumps, dewatering, and other measures as necessary to prevent sloughing of soils.

Wet Weather Earthwork

We do not recommend construction activities occur during wet weather conditions. The native soils encountered contain a high fines content and will likely be difficult to place/compact or traverse with construction equipment during periods of wet weather. General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soil should be followed promptly by the placement of concrete or placement and compaction of structural fill material. The size and type of construction equipment used may need to be limited to prevent soil disturbance.
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water.
- The ground surface within the construction area should be sealed by a smooth drum roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture infiltration.
- Excavation and placement of fill material should be monitored to determine that the work is being accomplished in accordance with the project specifications and that the weather conditions do not adversely impact the quality of work.

Utility Pipe Bedding and Backfill

General recommendations relative to pipe bedding and utility trench backfill are presented below:

- Pipe bedding material, placement, compaction and shaping should be in accordance with the project specifications and the pipe manufacturer's recommendations. As a minimum, the pipe bedding should meet the gradation requirements for Gravel Backfill for Pipe Zone Bedding, Section 9.03.12(3) of the WSDOT *Standard Specifications* (WSDOT, 2021).
- Pipe bedding materials should be placed on relatively undisturbed native soils, or compacted fill soils. If the native subgrade soils are disturbed, the disturbed material should be removed and replaced with compacted bedding material.
- Although unlikely, the possibility may arise that in areas the trench bottom may encounter very soft or organic-rich subgrade soils, and it will be necessary to over-excavate the unsuitable material and backfill with pipe bedding material. We recommend that crushed rock meeting the requirements for Crushed Surfacing Top Course, as described in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2021), be used to backfill the over-excavated portions of the trench bottom.
- Pipe bedding should provide a firm, uniform, cradle for support of the pipe. We recommend that a minimum 4-inch thickness of bedding material be provided beneath the pipe.
- Pipe bedding material and/or backfill around the pipe should be placed in layers and tamped to obtain complete contact with the pipe.
- During placement of the initial lifts, the trench backfill material should not be bulldozed into the trench or dropped directly on the pipe. Furthermore, heavy equipment should not be permitted to operate directly over the pipe until a minimum of 2 feet of backfill has been placed. Trench backfill should be placed in 8-inch (maximum) thick lifts and compacted

using mechanical equipment to at least 95% of its maximum dry density, as determined by testing in general accordance with ASTM D1557 (modified Proctor).

CONDITIONS AND LIMITATIONS

We have prepared this report for Parametrix and the Tulalip Tribe for use in design of this project. The conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances.

Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work 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.



We appreciate this opportunity to provide geotechnical and pavement engineering services on this project. If you have any questions or if we may be of further assistance, please contact the undersigned at (425) 774-0106.

Sincerely,

HWA GEOSCIENCES INC.



STEVEN ELLIOTT GREENE

Steven E. Greene
Principal Engineering Geologist



Bryan K. Hawkins, P.E.
Senior Geotechnical Engineer

ATTACHMENTS:

Figure 1	Vicinity Map
Figure 2	Site and Exploration Plan
Figure 3	Geologic Map
Figure 4	Generalized Geologic Cross Section A – A’
Appendix A	Subsurface Exploration
Appendix B	Laboratory Test Results

REFERENCES:

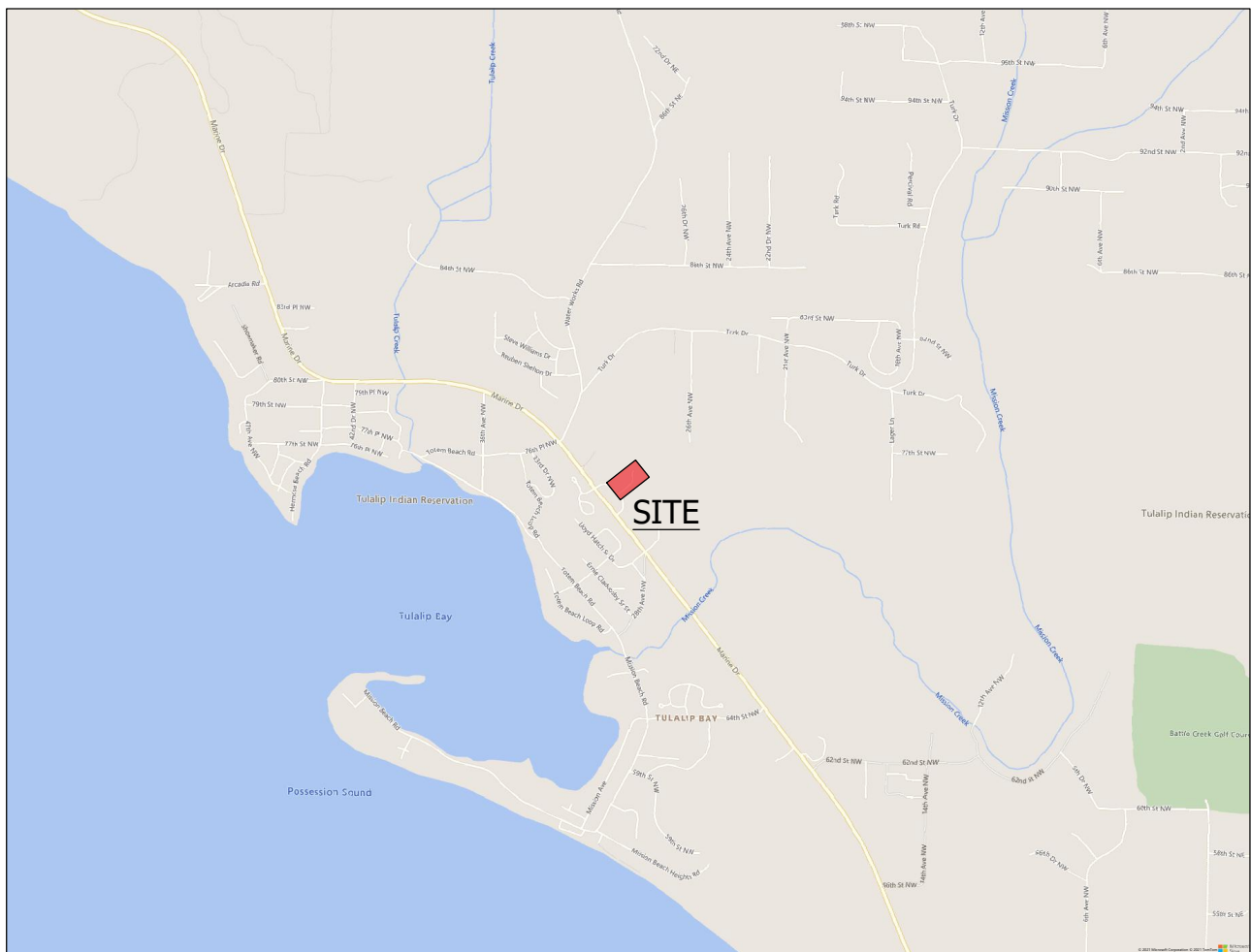
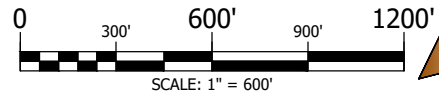
Frans, L.M., and Kresch, D.L., 2004, *Water resources of the Tulalip Indian Reservation and adjacent area, Snohomish County, Washington, 2001–03*: U.S. Geological Survey Scientific Investigations Report 2004–5166, 86 p.

Minard, J.P, 1985, *Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington*, U S Geological Survey Misc. Field Studies Map MF-1744.

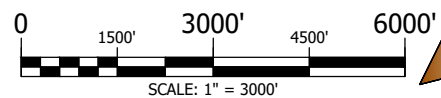
WSDOT, 2021, *Standard Specifications for Road, Bridge, and Municipal Construction*.



SITE MAP



VICINITY MAP



SITE AND VICINITY MAP

**TULALIP ROAD PRESERVATION
28TH DRIVE NW
TULALIP, WASHINGTON**

FIGURE NO.:

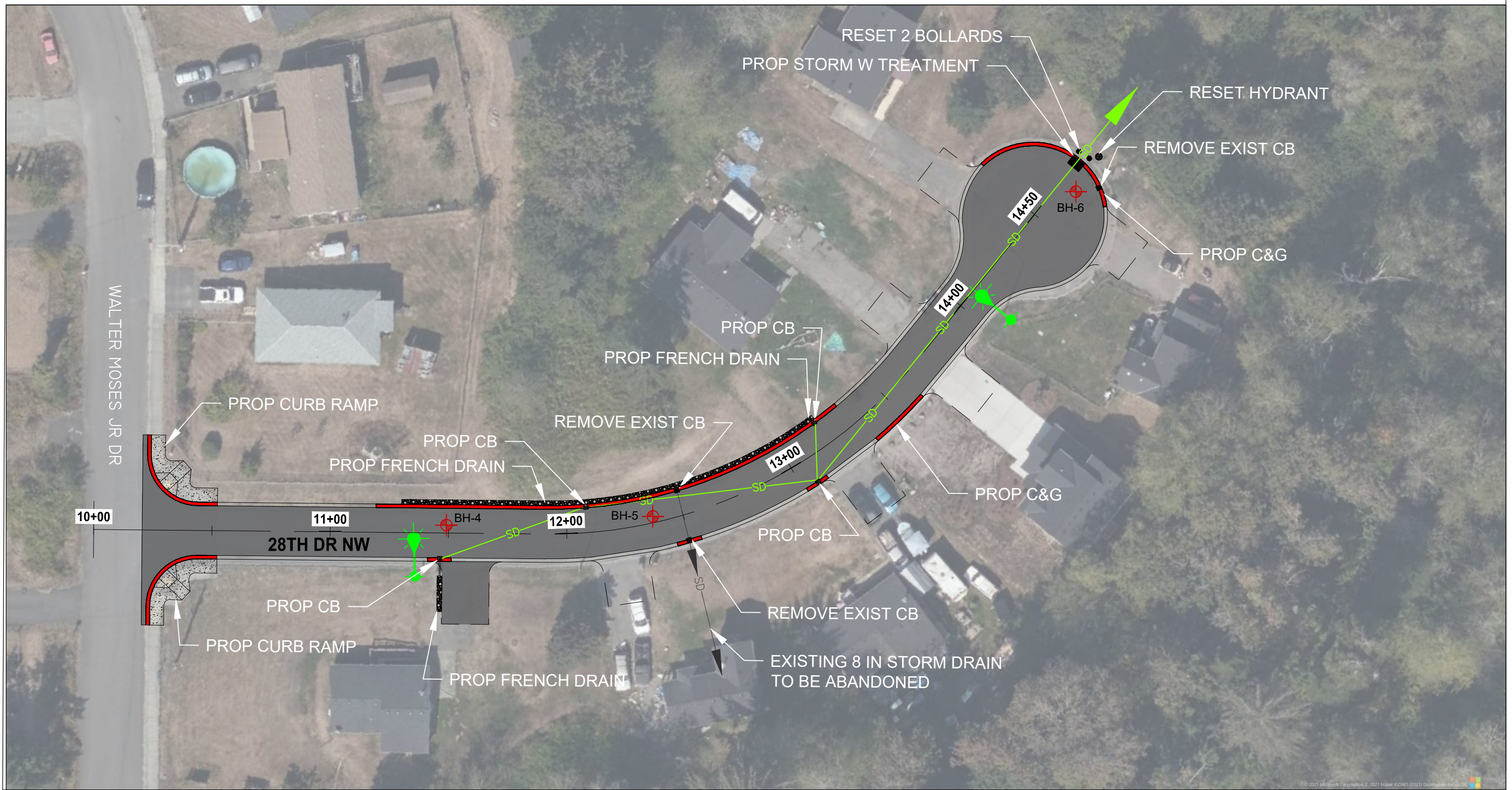
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CF SEG

PROJECT #
2021-036-21



GEOSCIENCES INC.
DBE/MWBE

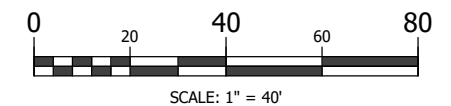


EXPLORATION LEGEND

BH-4 PROPOSED BOREHOLE DESIGNATION AND APPROXIMATE LOCATION

A A' GEOLOGIC CROSS SECTION

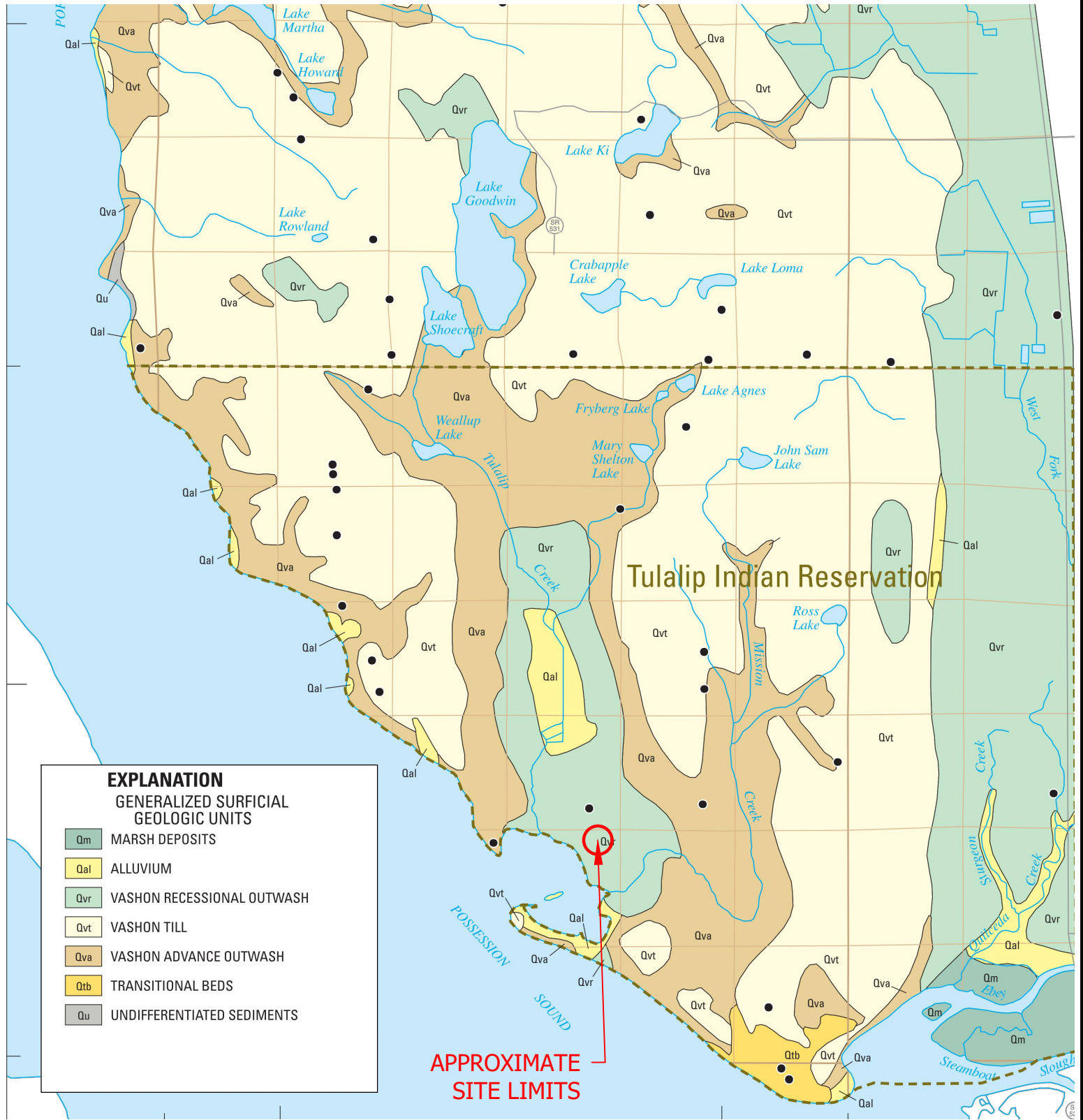
28TH DRIVE NW
Scale: 1" = 40'-0"



TULALIP ROAD PRESERVATION
28TH DRIVE NW
TULALIP, WASHINGTON

SITE &
EXPLORATION PLAN

DRAWN BY: CF	FIGURE NO.: 2
CHECK BY: SEG	PROJECT NO.: 2021-036-21



EXPLANATION
GENERALIZED SURFICIAL GEOLOGIC UNITS

- Qm MARSH DEPOSITS
- Qal ALLUVIUM
- Qvr VASHON RECESSONAL OUTWASH
- Qvt VASHON TILL
- Qva VASHON ADVANCE OUTWASH
- Qtb TRANSITIONAL BEDS
- Qu UNDIFFERENTIATED SEDIMENTS

APPROXIMATE SITE LIMITS

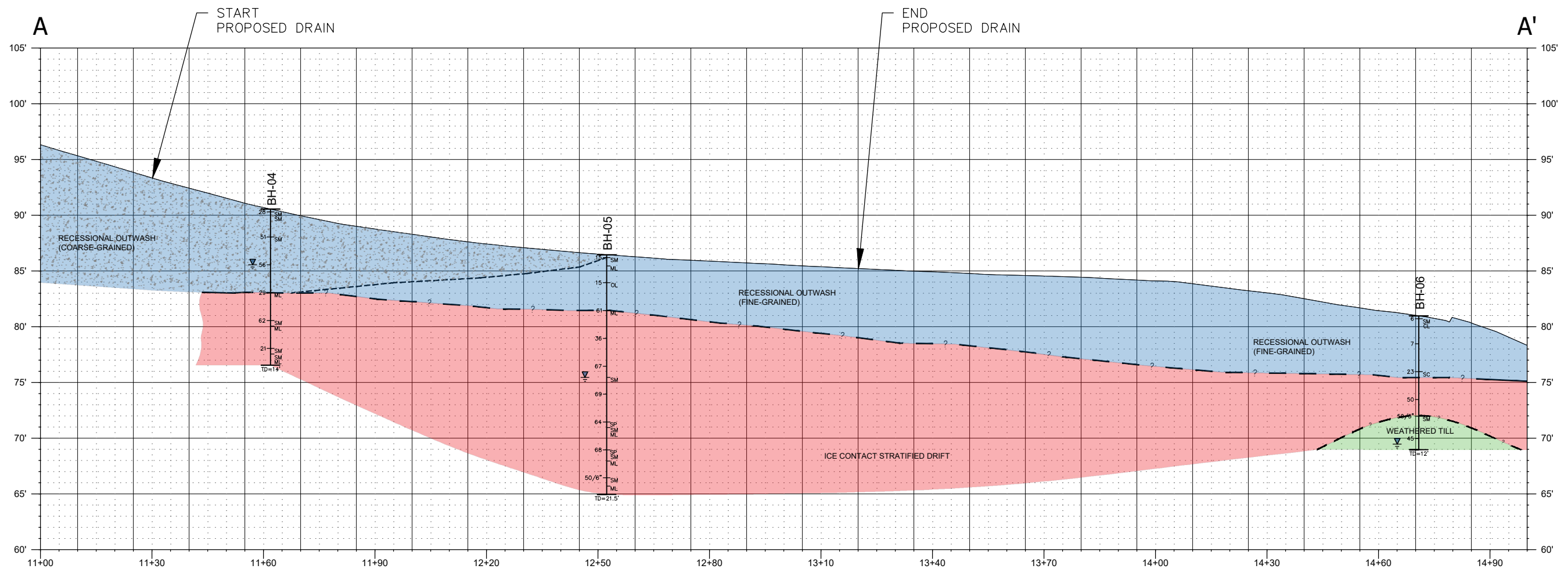
BASE MAP PROVIDED BY: SCIENTIFIC INVESTIGATIONS REPORT 2004-5166, SURFICIAL GEOLOGY, SELECTED WELLS, AND HYDROGEOLOGIC UNITS AND SECTIONS - PLATE 1, FRANS, L.M., AND KRESCH D.L., 2004, WATER RESOURCES OF THE TULALIP INDIAN RESERVATION AND ADJACENT AREA, SNOHOMISH COUNTY, WASHINGTON, 2001-03

NOT TO SCALE

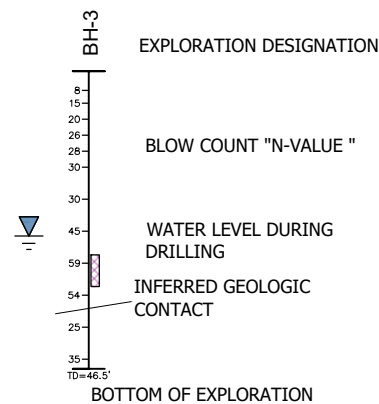


GEOLOGIC MAP
TULALIP ROAD PRESERVATION
28TH DRIVE NW
TULALIP, WASHINGTON

FIGURE NO.:
3
DRAWN BY: CHECK BY:
CF SEG
PROJECT #
2021-036-21



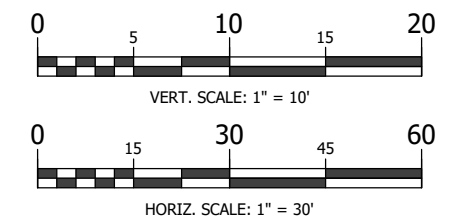
BORING LEGEND



SOILS LEGEND

- RECESSIONAL OUTWASH
- ICE CONTACT STRATIFIED DRIFT
- WEATHERED TILL
- APPROXIMATE BOUNDARY BETWEEN COARSE & FINE-GRAINED SOILS IN RECESSIONAL OUTWASH

NOTE: THE SUBSURFACE CONDITIONS SHOWN ARE BASED ON WIDELY SPACED BORINGS AND SHOULD BE CONSIDERED APPROXIMATE. FURTHERMORE, THE CONTACT LINES SHOWN BETWEEN UNITS ARE INTERPRETIVE IN NATURE AND MAY VARY Laterally OR VERTICALLY OVER RELATIVELY SHORT DISTANCES ON SITE. ELEVATIONS OF BORINGS ARE APPROXIMATE.



TULALIP ROAD PRESERVATION
28TH DRIVE NW
TULALIP, WASHINGTON

GENERALIZED
GEOLOGIC CROSS
SECTION

DRAWN BY: CF	FIGURE NO.: 4
CHECK BY: MAB/SEG	PROJECT NO.: 2021-036-21

APPENDIX A

SUBSURFACE EXPLORATION

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)		GW Well-graded GRAVEL
		Gravel with Fines (appreciable amount of fines)		GP Poorly-graded GRAVEL
	Sand and Sandy Soils	Clean Sand (little or no fines)		GM Silty GRAVEL
		Sand with Fines (appreciable amount of fines)		GC Clayey GRAVEL
More than 50% Retained on No. 200 Sieve Size	50% or More of Coarse Fraction Passing No. 4 Sieve	Clean Sand (little or no fines)		SW Well-graded SAND
		Sand with Fines (appreciable amount of fines)		SP Poorly-graded SAND
	Silt and Clay	Liquid Limit Less than 50%		SM Silty SAND
				SC Clayey SAND
		Liquid Limit 50% or More		ML SILT
				CL Lean CLAY
Highly Organic Soils	Silt and Clay		OL Organic SILT/Organic CLAY	
			MH Elastic SILT	
			CH Fat CLAY	
			OH Organic SILT/Organic CLAY	
			PT PEAT	

- TEST SYMBOLS**
- %F Percent Fines
 - AL Atterberg Limits: PL = Plastic Limit, LL = Liquid Limit
 - CBR California Bearing Ratio
 - CN Consolidation
 - DD Dry Density (pcf)
 - DS Direct Shear
 - GS Grain Size Distribution
 - K Permeability
 - MD Moisture/Density Relationship (Proctor)
 - MR Resilient Modulus
 - OC Organic Content
 - pH pH of Soils
 - PID Photoionization Device Reading
 - PP Pocket Penetrometer (Approx. Comp. Strength, tsf)
 - Res. Resistivity
 - SG Specific Gravity
 - CD Consolidated Drained Triaxial
 - CU Consolidated Undrained Triaxial
 - UU Unconsolidated Undrained Triaxial
 - TV Torvane (Approx. Shear Strength, tsf)
 - UC Unconfined Compression

SAMPLE TYPE SYMBOLS

- 2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
- Shelby Tube
- Non-standard Penetration Test (3.0" OD Split Spoon with Brass Rings)
- Small Bag Sample
- Large Bag (Bulk) Sample
- Core Run
- 3-1/4" OD Split Spoon

GROUNDWATER SYMBOLS

- Groundwater Level (measured at time of drilling)
- Groundwater Level (measured in well or open hole after water level stabilized)

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS
< 5%	Clean
5 - 12%	Slightly (Clayey, Silty, Sandy)
12 - 30%	Clayey, Silty, Sandy, Gravelly
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)
Components are arranged in order of increasing quantities.	

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.



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LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

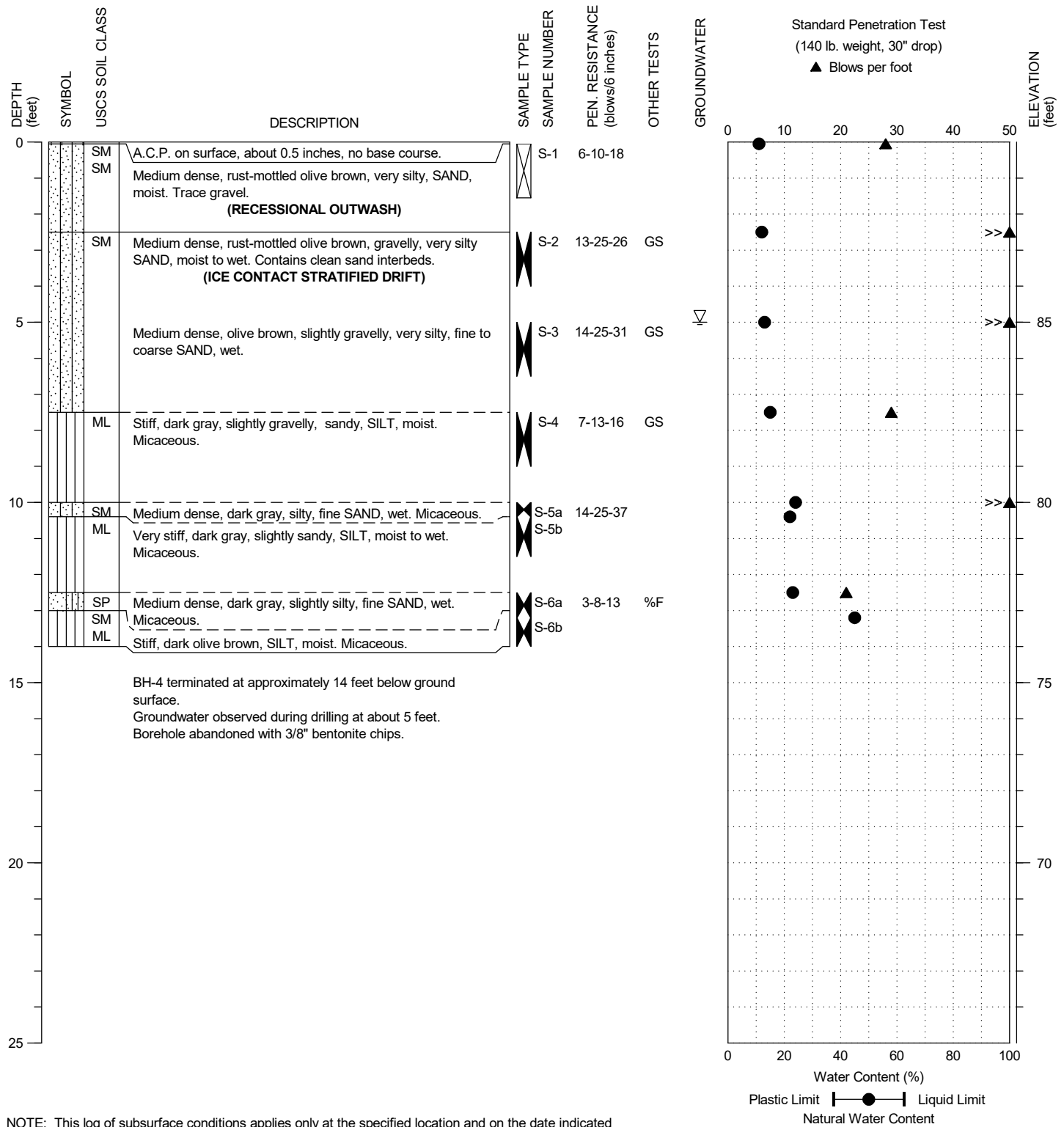
PROJECT NO.: 2021-036-21

FIGURE:

A-1

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT, California Modified w/Autohammer
 LOCATION: 48.06387937, -122.27188983, see Figure 2

DATE STARTED: 8/5/2021
 DATE COMPLETED: 8/5/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 90.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-04

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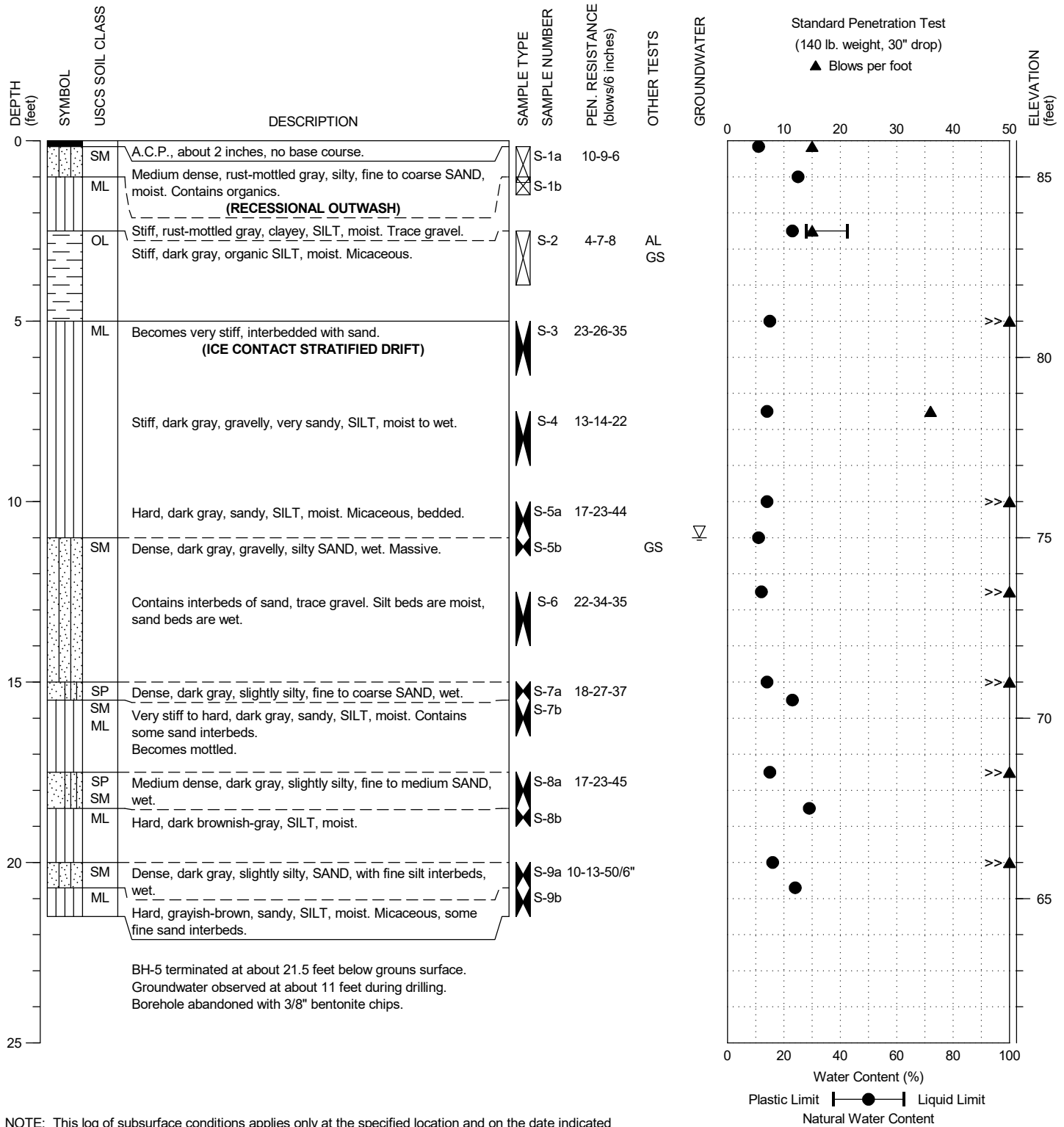
PROJECT NO.: 2021-036-21

FIGURE:

A-2

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT, California Modified w/Autohammer
 LOCATION: 48.06405063, -122.27162571, see Figure 2

DATE STARTED: 8/5/2021
 DATE COMPLETED: 8/5/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 86.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-05

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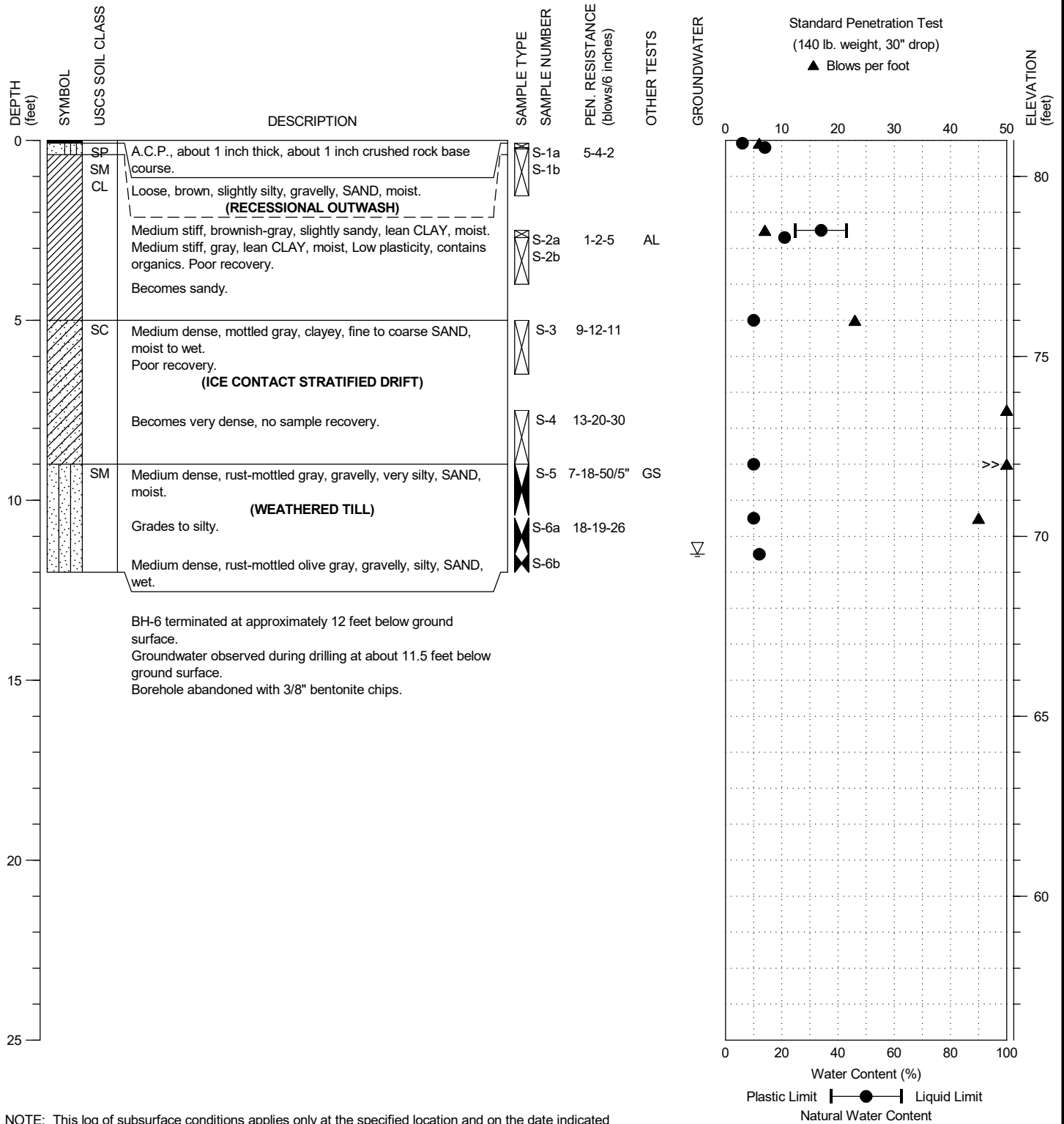
PROJECT NO.: 2021-036-21

FIGURE:

A-3

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT, California Modified w/Autohammer
 LOCATION: 48.06463141, -122.27147142, see Figure 2

DATE STARTED: 8/5/2021
 DATE COMPLETED: 8/5/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 81.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-06

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PROJECT NO.: 2021-036-21

FIGURE:

A-4

APPENDIX B

LABORATORY TEST RESULTS

APPENDIX B

LABORATORY TESTING

Representative soil samples obtained from the subsurface explorations were taken to the HWA laboratory in Bothell, Washington for examination and testing. Laboratory tests were conducted on selected soil samples to characterize engineering properties of the soils. Laboratory tests, as described below, included moisture content determination, grain size distribution, and Atterberg Limits. The results of the laboratory testing are presented in Appendix B.

Moisture Content of Soil: The moisture content (percent by dry mass) of selected soil samples was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate exploration logs in Appendix A and on the Summary of Material Properties, Figures B-1 and B-2.

Particle Size Analysis of Soils: The particle size distribution of selected soil samples was determined in general accordance with ASTM D6913 (wet sieve and hydrometer method). The results are summarized on the attached Particle-Size Analysis of Soils report, Figures B-3 through B-5, which also provides information regarding the classification of the samples and the moisture content at the time of testing.

Liquid Limit, Plastic Limit, and Plasticity Index of Soils (Atterberg Limits): The Atterberg limits of selected soil samples were determined using method ASTM D 4318, multi-point method. The results are reported on the attached Liquid Limit, Plastic Limit, and Plasticity Index report, Figure B-6.

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	WET DENSITY (pcf)	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-04,S-1	0.1	1.6	11.1									SM	Olive-brown, silty SAND with gravel
BH-04,S-2	2.5	4.0	12.3					5.5	57.4	37.1		SM	Light olive-brown, silty SAND
BH-04,S-3	5.0	6.5	13.1					13.5	69.9	16.7		SM	Olive-brown, silty SAND
BH-04,S-4	7.5	9.0	15.3					0.4	41.5	58.1		ML	Dark gray, sandy SILT
BH-04,S-5a	10.0	10.4	23.9									SM	Very dark gray, silty SAND
BH-04,S-5b	10.4	11.5	21.7									ML	Very dark gray, SILT with sand
BH-04,S-6a	12.5	13.2	22.6							7.9		SP-SM	Very dark gray, poorly graded SAND with silt
BH-04,S-6b	13.2	14.0	45.4									OL	Very dark brown, organic SILT with sand
BH-05,S-1a	0.2	1.2	10.9									SM	Very dark grayish-brown, silty SAND with gravel
BH-05,S-1b	1.0	1.5	25.5									ML	Gray, SILT with sand
BH-05,S-2	2.5	4.0	23.5			42	28	14		13.1	86.9	OL	Dark grayish-brown, organic SILT
BH-05,S-3	5.0	6.5	15.3									ML	Very dark gray, sandy SILT with gravel
BH-05,S-4	7.5	9.0	14.1									SM	Very dark gray, silty SAND with gravel
BH-05,S-5a	10.0	11.0	14.3									ML	Very dark gray, SILT with sand
BH-05,S-5b	11.0	11.5	10.6					23.3	51.0	25.7		SM	Very dark grayish-brown, silty SAND with gravel
BH-05,S-6	12.5	14.0	11.6									SM	Very dark gray, silty SAND with gravel
BH-05,S-7a	15.0	15.5	14.1									SP-SM	Very dark gray, poorly graded SAND with silt
BH-05,S-7b	15.5	16.5	23.2									ML	Very dark gray, SILT with sand
BH-05,S-8a	17.5	18.5	15.3									SP-SM	Dark gray, poorly graded SAND with silt
BH-05,S-8b	18.5	19.0	28.6									ML	Dark olive-brown, SILT with sand

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.



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SUMMARY OF
MATERIAL PROPERTIES

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FIGURE: B-1

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	WET DENSITY (pcf)	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
BH-05,S-9a	20.0	20.7	15.6									SM	Very dark grayish-brown, silty SAND
BH-05,S-9b	20.7	21.5	24.2									SM	Dark grayish-brown, silty SAND
BH-06,S-1a	0.1	0.2	5.7									SP-SM	Olive-brown, poorly graded SAND with silt and gravel
BH-06,S-1b	0.2	1.5	14.5									SP-SM	Grayish-brown, poorly graded SAND with silt
BH-06,S-2a	2.5	2.7	34.4			43	25	18				CL	Gray, lean CLAY
BH-06,S-2b	2.7	4.0	21.2									SP-SM	Grayish-brown, poorly graded SAND with silt
BH-06,S-3	5.0	6.5	10.2									SP-SM	Gray, poorly graded SAND with silt and gravel
BH-06,S-5	9.0	10.4	9.8						20.6	50.4	28.9	SM	Grayish-brown, silty SAND with gravel
BH-06,S-6a	10.5	11.5	10.4									SM	Grayish-brown, silty SAND with gravel
BH-06,S-6b	11.5	12.0	11.6									SM	Olive-brown, silty SAND with gravel

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.



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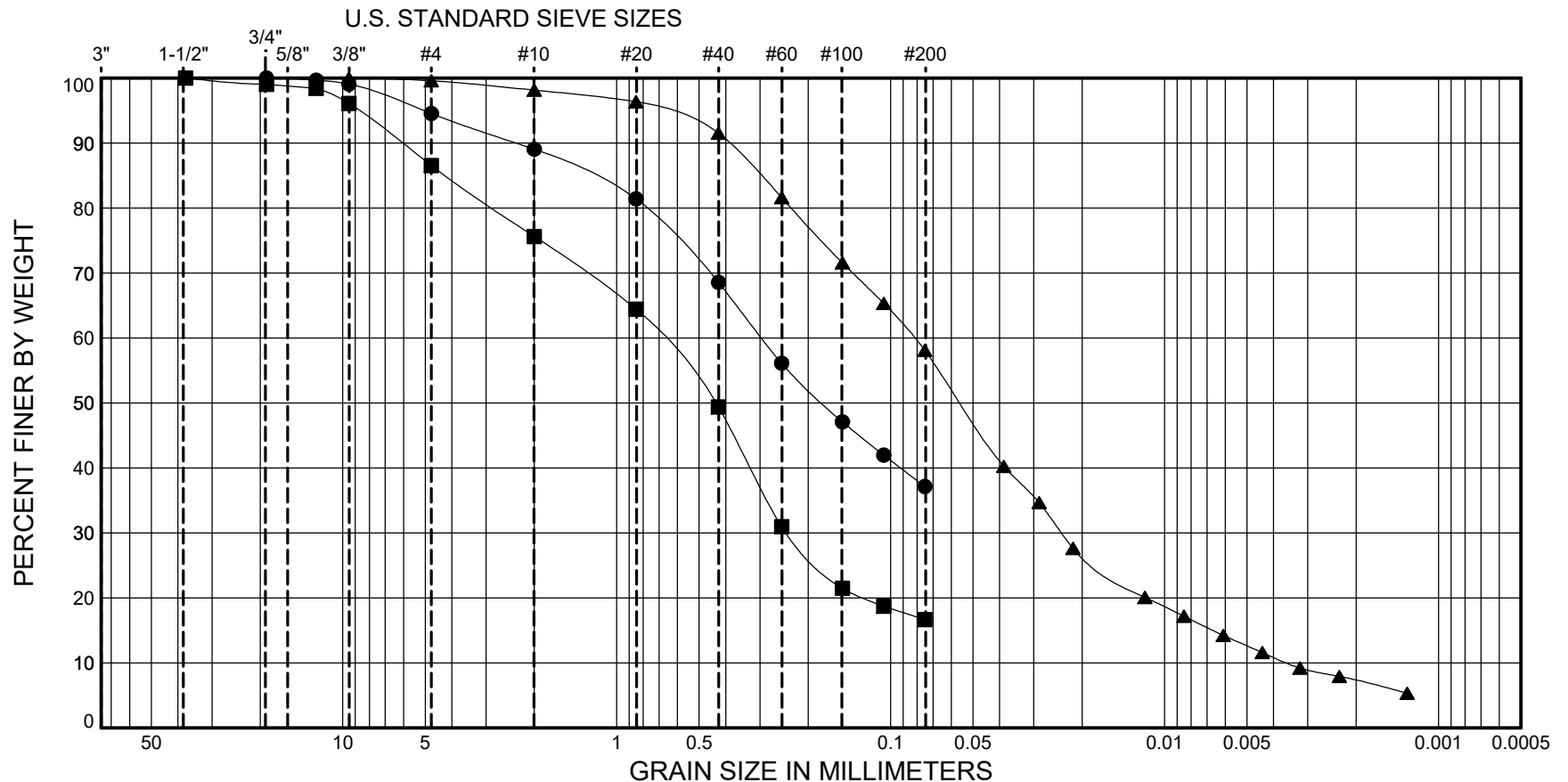
SUMMARY OF
MATERIAL PROPERTIES

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FIGURE: B-2

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-04	S-2	BH-04,2.5	(SM) Light olive-brown, silty SAND	12				5.5	57.4	37.1
■	BH-04	S-3	BH-04,5	(SM) Olive-brown, silty SAND	13				13.5	69.9	16.7
▲	BH-04	S-4	BH-04,7.5	(ML) Dark gray, sandy SILT	15				0.4	41.5	58.1



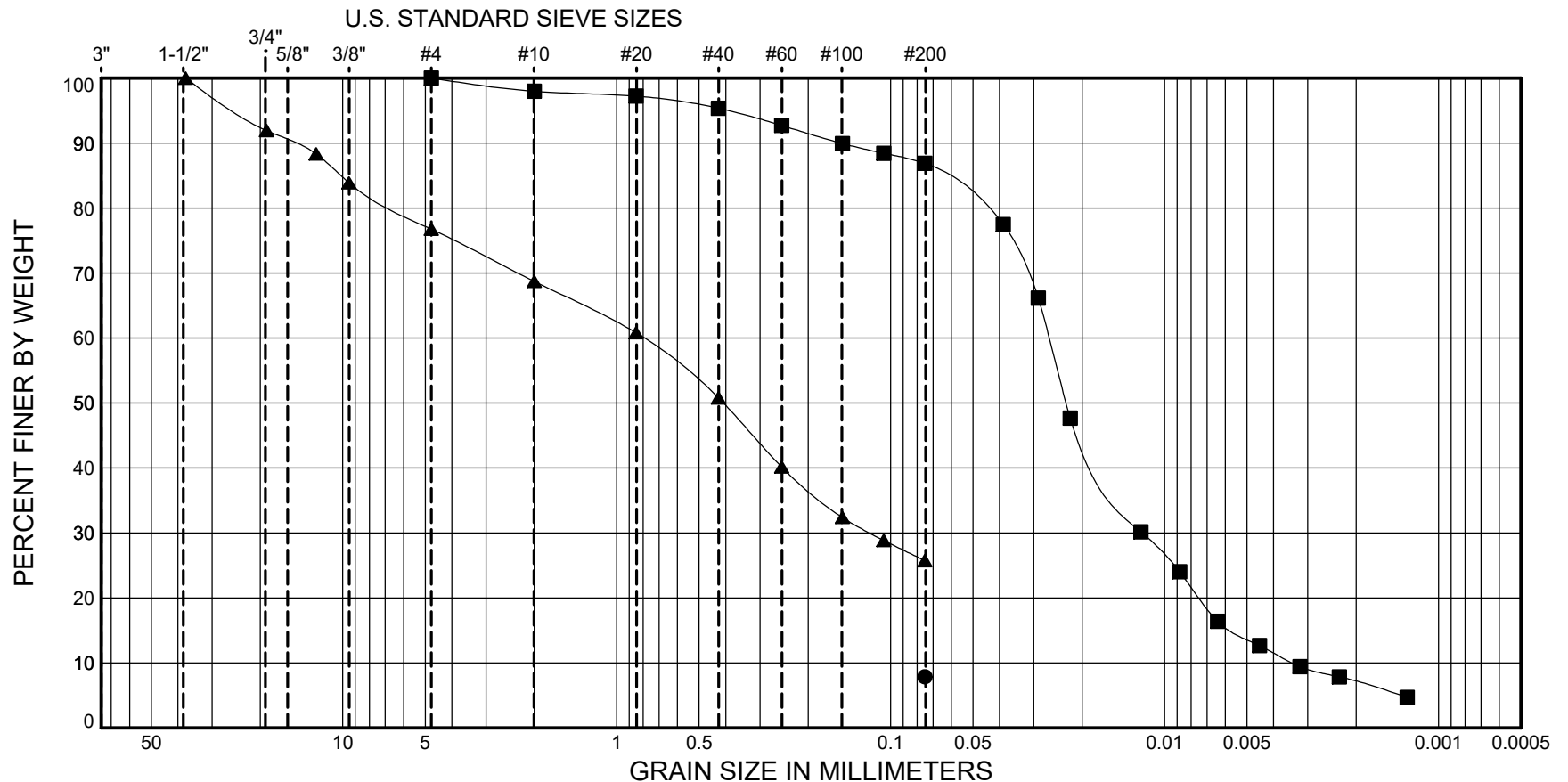
Tulalip Pavement Preservation
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PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422

PROJECT NO.: 2021-036-21

FIGURE: B-3

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



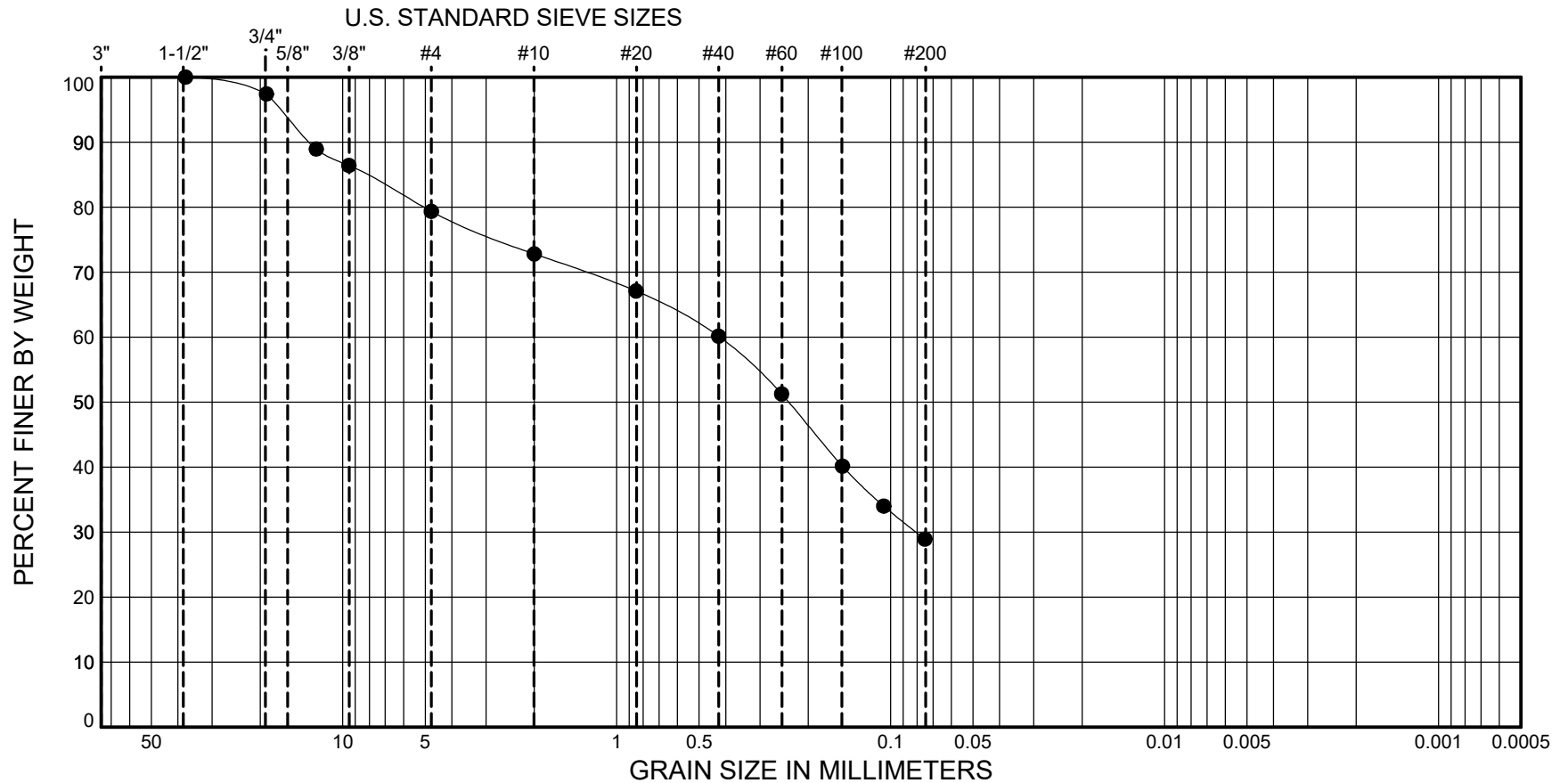
SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-04	S-6a	BH-04, 12.5	(SP-SM) Very dark gray, poorly graded SAND with silt	23						7.9
■	BH-05	S-2	BH-05, 2.5	(OL) Dark grayish-brown, organic SILT	23	42	28	14		13.1	86.9
▲	BH-05	S-5b	BH-05, 11	(SM) Very dark grayish-brown, silty SAND with gravel	11				23.3	51.0	25.7



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PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		

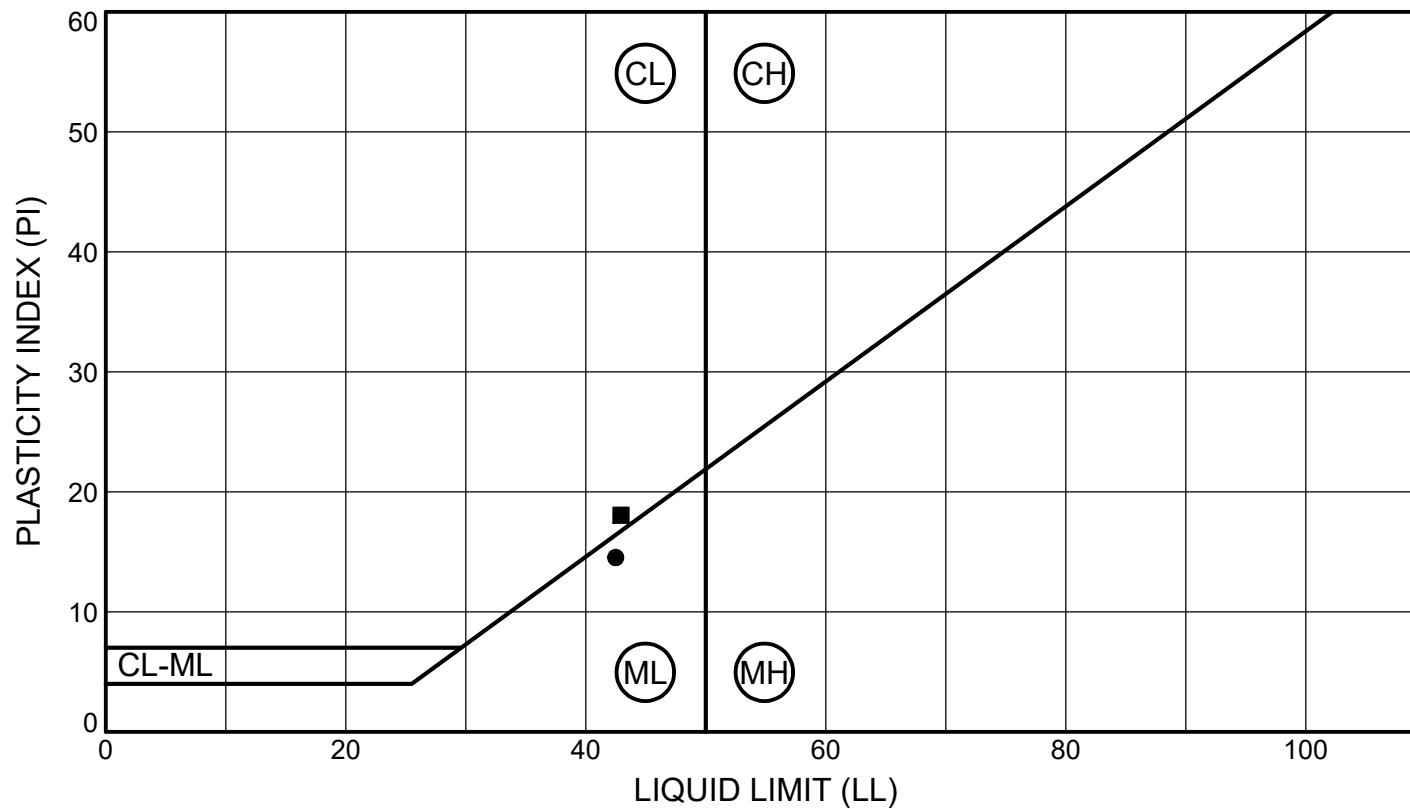


SYMBOL	SAMPLE	DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-06 S-5	BH-06,9	(SM) Grayish-brown, silty SAND with gravel	10				20.6	50.4	28.9



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Tulalip, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422



SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION	% MC	LL	PL	PI	% Fines
●	BH-05	S-2	2.5 - 4.0	(OL) Dark grayish-brown, organic SILT	23	42	28	14	86.9
■	BH-06	S-2a	2.5 - 2.7	(CL) Gray, lean CLAY	34	43	25	18	



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LIQUID LIMIT, PLASTIC LIMIT AND
 PLASTICITY INDEX OF SOILS
 METHOD ASTM D4318

PROJECT NO.: 2021-036-21

FIGURE: B-6



GEOSCIENCES INC.

DBE/MWBE

September 27, 2021
HWA Project No. 2021-036-21

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104

Attention: Austin Fisher, P.E.

Subject: **Draft Geotechnical Engineering Report
Pavement Improvement Project – 81st Street NE/29th Drive NE/30th Drive NE
Tulalip, Washington**

Dear Mr. Fisher:

As requested, HWA GeoSciences Inc. (HWA) has completed a geotechnical investigation for the proposed improvements along 81st Street NE, 29th Drive NE, and 30th Drive NE on the Tulalip Indian Reservation in Snohomish County, Washington. This report presents the results of our field explorations and laboratory testing along with our recommendations pertaining to stormwater infiltration, luminaire/signal pole foundations and pavement design.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact us at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

Bryan Hawkins, P.E.
Senior Geotechnical Engineer

**DRAFT GEOTECHNICAL ENGINEERING REPORT
PAVEMENT IMPROVEMENT PROJECT – 81ST STREET NE
TULALIP, WASHINGTON**

1. INTRODUCTION

1.1 GENERAL

This report summarizes the results of the geotechnical engineering investigation performed by HWA GeoSciences Inc. (HWA) in support of the proposed improvements along 81st Street NE, east of Donald Campbell Road and extending to 30th Drive NE, including 29th Drive NE and 30th Drive NE, on the Tulalip Indian Reservation in Snohomish County, Washington. The approximate location of the project site is shown on the Site and Vicinity Map, Figure 1, and on the Site and Exploration Plan, Figure 2. Our field work included logging the drilling of five boreholes and logging the excavation of three hand borings to evaluate existing pavement thickness, subsurface soil, and groundwater conditions. Laboratory tests were conducted on select soil samples to determine relevant engineering properties of the subsurface soils.

1.2 PROJECT UNDERSTANDING

It is our understanding that the proposed project improvements include full depth pavement reconstruction, stormwater treatment and infiltration facilities (30th Drive NE), curb and gutter replacement (30th Drive NE) and new luminaires (on 81st Street NE and 30th Drive NE). Our investigation was performed to evaluate subsurface conditions along the project alignment to provide design recommendation for the proposed improvements.

2. FIELD INVESTIGATION

2.1 SUBSURFACE EXPLORATIONS

2.1.1 Pavement Conditions

The pavement structure (HMA pavement, aggregate base, and subgrade conditions) of the existing roadways was assessed during site reconnaissance and while performing five geotechnical borings (designated BH-07 through BH-11). A Standard Penetration Test (SPT) was performed at each location just below the layer of HMA to assess subgrade support. Drilling equipment and SPT procedures are described in Section 2.1.2. Table 1 summarizes the pavement structures encountered in the pavement core explorations.

Table 1. Thickness of Pavement Layers

Designation	Location	HMA Thickness (in.)	Pervious Concrete Pavement Thickness (in.)	Crushed Base Thickness (in.)	Subgrade Conditions
BH-07	81 st St. NE	2	---	---	Medium dense, slightly silty sand
BH-08	30 th Dr. NE	2	---	---	Medium dense, slightly silty sand
BH-09	30 th Dr. NE	---	6	5	Medium dense sand
BH-10	81 st St. NE	1	---	---	Medium dense, slightly silty sand
BH-11	29 th Dr. NE	1	---	---	Medium dense, slightly silty sand

Pavement distresses visible at the surface along the alignments consist of medium to high severity alligator cracking and potholing, particularly in the wheel paths.

As indicated in Table 1, the existing Hot Mix Asphalt (HMA) thickness typically varied from 1 to 2 inches and consisted of 1 lift of HMA. Crushed base was not observed below any the payment areas except at the cul-du-sac at the end of 30th Drive NE which is paved with pervious concrete. At that location the pervious Portland cement concrete layer was 5 inches thick and with a 6-inch-thick layer of crushed rock base below.

2.1.2 Geotechnical Borings

HWA logged the drilling of five machine-drilled borings, designated BH-07 through BH-11, to assess subsurface conditions along the alignment. The locations of the explorations are shown on the Site Exploration Plan, Figure 2. The borings were drilled on August 5 and 6, 2021 using a Diedrich D-90 truck-mounted drill rig operated by Holocene Drilling, of Puyallup, Washington, under subcontract to HWA. Borehole depths varied between approximately 11½ and 21½ feet.

In each boring, Standard Penetration Test (SPT) sampling was performed using a 2-inch outside diameter split-spoon sampler driven by a 140-pound automatic hammer. During the SPT, samples were obtained by driving the sampler 18 inches into the soil with the hammer free-falling 30 inches. The numbers of blows required for each 6 inches of penetration were recorded. The Standard Penetration Resistance (“N-value”) of the soil is calculated as the number of blows required for the final 12 inches of penetration. This resistance, or N-value,

provides an indication of relative density of granular soils and the relative consistency of cohesive soils; both indicators of soil strength.

A geologist from HWA logged the explorations and recorded all pertinent information. Soil samples obtained from the boreholes were classified in the field and representative portions were sealed in plastic bags. Pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence was recorded. These soil samples were then taken to our Bothell, Washington, laboratory for further examination and testing.

The stratigraphic contacts shown on the individual exploration logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific date and location reported and, therefore, are not necessarily representative of other locations and times. A legend of the terms and symbols used on the exploration logs is presented in Appendix A, Figure A-1. Summary logs of the borehole explorations are presented in Figures A-2 through A-6.

2.1.3 Hand Borings

HWA logged the excavation of three hand borings on August 9, 2021, designated HH-1 through HH-3, to depths of about 6 to 9 feet. The purpose of the hand borings was to retrieve soil samples from proposed receptor soils for evaluation of infiltration potential. Groundwater seepage was not observed in any of the hand borings.

The hand borings were excavated by an HWA Geologist, who logged the borings and obtained representative soil samples. Soil samples obtained from the hand borings were classified in the field and representative portions were placed in plastic bags and taken to our Bothell, Washington laboratory for further examination and testing.

Hand boring exploration logs are presented in Appendix A, Figures A-7 through A-9. It should be noted that the stratigraphic contacts shown on the individual exploration logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific date and locations reported and, therefore, are not necessarily representative of other locations and times.

2.2 LABORATORY TESTING

Geotechnical laboratory tests were conducted on selected samples obtained from the explorations to characterize relevant engineering and index parameters of the soils encountered. The tests included visual classification, natural moisture content determination, organic content and grain size distribution. The tests were conducted in the HWA laboratory in general accordance with appropriate American Society of Testing and Materials (ASTM) standards and are discussed in further detail in Appendix B. In addition, selected samples representing potential infiltration receptor soils were sent to Soiltest Services of Moses Lake, Washington for Cation Exchange

capacity (CEC) determinations. The test results are presented in Appendix B, and displayed on the exploration logs in Appendix A, as appropriate.

3. SITE CONDITIONS

3.1 GENERAL GEOLOGIC CONDITIONS

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic Mountain ranges, composed of a complex sequence of glacial and interglacial deposits.

Geologic information for the project site was obtained from the published geologic maps for the area; *Geologic map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington* (Minard, 1985) and the *Surficial Geology, Selected Wells, and Hydrogeologic Units and Sections – Plate 1 from Water Resources of the Tulalip Indian Reservation and adjacent areas, Snohomish County, Washington 2001-2003* (Frans and Kresch, 2004). These maps indicate that the surficial geology within the vicinity of the subject roadway consists of Vashon recessional outwash, a unit of mostly clean sand with some gravel, and some beds of silts and clay that were deposited by glacial meltwater behind the retreating Puget Lobe of the Cordilleran Ice Sheet during the latest glaciation. A portion of the geologic map depicting the project location is shown on Figure 3.

3.2 SUBSURFACE SOIL CONDITIONS

Below the thin pavement section or shallow topsoil layer, subsurface conditions consisted of recessional outwash deposits as described below.

Vashon Recessional Outwash: Vashon recessional outwash was encountered immediately below the pavement layer or topsoil in all explorations and each exploration was terminated in this deposit. The Vashon recessional outwash encountered consisted of loose to medium dense, clean to silty sands and gravels. A layer of stiff silt approximately 2.5 feet in thickness was encountered in BH-09 from a depth of 7.5 to 9 feet. The recessional outwash layer was not fully penetrated in any of our borings and appears to be more than 20 feet thick.

Recessional outwash was deposited by glacial meltwater during ice retreat away from the ice margin, consequently this unit is not glacially overridden and therefore typically permeable and a good receptor for infiltration purposes.

3.3 GROUNDWATER CONDITIONS

Groundwater seepage was encountered in borings BH-07 and BH-08 at a depth of about 16½ feet, and in boring BH-09 at a depth of about 16 feet. Groundwater seepage was not encountered in the hand borings, which extended to a maximum depth of about 9 feet. We anticipate that groundwater levels vary seasonally, with the highest water levels in the wet winter months.

3.4 INFILTRATION

3.4.1 General

Below the pavement section and shallow topsoil, the native subgrade soils along throughout the project area consist of non-glacially consolidated recessional outwash deposits. The thickness of the recessional outwash soils appears to be more than 20 feet based on our borings.

Laboratory testing consisting of particle size analyses was performed on four select recessional outwash soil samples to estimate infiltration rates, as described below.

3.4.2 Calculated Infiltration Rates

Design infiltration rates were evaluated in general accordance with the *Stormwater Management Manual for Western Washington* (SWMMWW, 2019), published by the Washington State Department of Ecology. The Washington State Department of Ecology, Stormwater Management Manual for Western Washington (SWMMWW, 2019) recommends the following relationship may be used to determine initial infiltration rates using the results of soil grain size analyses for soils unconsolidated by glacial advance, such as recessional outwash:

$$\log_{10}(K_{\text{sat}}) = -1.57 + 1.90D_{10} + 0.015D_{60} - 0.013D_{90} - 2.08f_{\text{fines}}$$

Once the initial saturated hydraulic conductivity (K_{sat}) is obtained, the manual recommends using the following correction factors to estimate the design infiltration rate:

Issue	Partial Correction Factor
Site variability and number of locations tested	$CF_v = 0.33$ to 1.0
Test Method	
<ul style="list-style-type: none"> • Large-scale PIT • Small-scale PIT • Other small-scale (e.g. Double ring, falling head) • Grain Size Method 	<ul style="list-style-type: none"> • $CF_t = 0.75$ • $= 0.50$ • $= 0.40$ • $= 0.40$
Degree of influent control to prevent siltation and bio-buildup	$CF_m = 0.9$

$$\text{Total Correction Factor, } CF_T = CF_v \times CF_t \times CF_m$$

- The design infiltration rate (K_{sat} design) is calculated by multiplying the initial K_{sat} by the total correction factor:

$$K_{sat} \text{ design} = K_{sat} \text{ initial} \times CF_T$$

For the site variability correction factor (CF_v), a value of 0.9 was used. Because the grain size method was used in the analyses, a value of 0.4 was used for the uncertainty of test method correction factor (CF_t). A value of 0.9 was used for the degree of influent control to prevent siltation and bio-buildup correction factor (CF_m). Multiplying these three correction factors together resulted in a Total Correction Factor value of 0.324. Figure 4 presents the results of the Massmann analysis, and the design infiltration rates for the four samples tested.

3.4.3 Soil Suitability for Treatment

The potential receptor soils were tested to determine their potential suitability for physical and chemical treatment of infiltrating water to remove target pollutants as required by Section V-5.6 the SWMWW and Section 3.3.7 of the Snohomish County Drainage Manual. Potential receptor soil's ability to treat infiltrating water is assessed by determination of the soils organic content and cation exchange capacity (CEC). Soils considered to be suitable for infiltration treatment are those that contain at least 1 percent organic material by weight and exhibit a cation exchange capacity (CEC) of greater than or equal to 5 meq / 100 g. None of the potential receptor soils meet the minimum requirement for cation exchange capacity. Therefore, Snohomish County will require an engineered soil pre-treatment layer be incorporated into the design of the infiltration facilities. The results for the target receptor soils for this project are presented in Table 2 below.

Table 2. Soil Physical and Chemical Suitability for Treatment

Sample Designation	Sample Depth (feet)	Soil Classification	Design Infiltration Rate (in/hr.)	Organic Content (%)	CEC meq / 100 g
BH-08, S-1	2.5 - 4	SP	20.7	1.2	4.4
HH-1, S-2	2.5 - 5	SP	24.4	1.3	1.7
HH-2, S-1	1 - 3	SM	4.8	4.3	4.6
HH-3, S-2	1.7 – 6.8	SP	25.5	1.2	1.6

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 GENERAL

The explorations performed throughout the project area indicate that the subsurface surface soils in the upper 20 feet consist of non-glacially consolidated recessional outwash deposits. The soils appear suitable for the proposed improvements, including new luminaires, stormwater infiltration and subsurface utilities. Based on the results of laboratory testing, the recessional outwash soils will be suitable for stormwater infiltration, although an engineered soil pre-treatment layer will need be incorporated into the design.

The existing pavement thickness is very thin (2 inches thick or less) and heavily distressed and will need to be reconstructed.

Design recommendations for stormwater infiltration, luminaire pole foundations, earthwork, pavement design and general earthwork are presented in the following sections.

4.2 INFILTRATION RECOMMENDATIONS

4.2.1 General

Our infiltration analyses indicate that infiltration is feasible along the alignment of 30th Drive NE within the recessional outwash soils, with calculated design infiltration rates in the range of 4.8 to 25.5 in/hr, as indicated in Figure 4.

4.2.2 Construction Considerations for Infiltration Facilities

Prior to the installation of infiltration facilities, the subgrade should be cut to the depth of proposed receptor soils. A flat subgrade is preferred for the bottom of the infiltration facilities. The subgrade soils under areas used for infiltration should NOT be compacted or subjected to

excessive construction equipment traffic prior to coarse aggregate bed placement. Where erosion of subgrade has caused accumulation of fine materials and/or surface ponding, this material shall be removed with light equipment and the underlying soils scarified to a minimum depth of 8 inches. Subsurface conditions should be monitored and verified during construction by a qualified earthworks inspector.

Construction of the proposed infiltration facilities will require excavations within recessional outwash soils that could potentially contain cobbles and or boulders. Therefore, perspective contractors should be prepared to encounter and remove cobbles and boulders during excavations for the proposed infiltration facilities.

4.3 LUMINAIRE POLE FOUNDATION RECOMMENDATIONS

Table 17-2 of the *WSDOT Geotechnical Design Manual* (WSDOT, 2019), provides allowable lateral bearing pressures based on Standard Penetration Test (SPT) Resistance N-values (blows/foot). Table 3 summarizes the proposed luminaire pole foundation recommendations by depth for each borehole location in the vicinity of proposed luminaires.

Table 3. Recommended Standard for Luminaire Pole Foundations

Relevant Boring	Depth (ft)	Average SPT N-Value in Depth Interval	Design Allowable Lateral Bearing Pressure (psf)
BH-07	0-6½	13	2,100
BH-07	6½-21½	23	3,900
BH-08	0-6½	10	1,500
BH-08	6½-21½	24	4,100
BH-09	0-6½	20	3,500
BH-09	6½-21½	17	2,900

Luminaire pole foundations can likely be constructed using conventional drilled shaft methods using flighted augers. Cobbles were not encountered in the subsurface soils; however, they are common in glacial soils and boulders could also be present. Per the Unified Soil Classification System (USCS), cobbles are defined as a rock with a dimension between 3 and 12 inches; boulders are defined as rock with a minimum dimension of 12 inches. The contractor should be prepared to encounter cobbles and boulders during drilling of shafts.

Groundwater seepage was encountered in all three borings conducted for luminaire foundations (BH-07, BH-08, and BH-09) at a minimum depth of about 16 feet at the time of drilling; however, explorations were conducted in summer when the groundwater levels are anticipated to be at their lowest. Higher groundwater levels should be anticipated if work is conducted at wetter times of year or after heavy precipitation events. The contractor should be prepared to control ground water and prevent caving of the drilled shaft sidewalls, which will require use of temporary casing. The concrete should be placed using a tremie pipe from the bottom of the shaft if groundwater inside the casing is over a depth of 6 inches.

A qualified geotechnical engineer should observe shaft excavation and concrete placement. This will also provide the opportunity to confirm conditions assumed in the design and provide corrective recommendations as necessary to adapt to conditions observed during construction.

4.4 PAVEMENT DESIGN

The existing pavement section is very thin, less than about 2 inches thick, and highly distressed. No crushed base layer was present below the pavement except in BH-09, where it was beneath a section of pervious concrete pavement. Although these streets experience residential traffic only, the existing pavement section is insufficient to handle the traffic loads in this area as evidenced by the distresses observed. We recommend that the pavement be reconstructed. The following sections provide our pavement design recommendations.

4.4.1 New HMA Pavement Design

Table 4 provides our HMA design recommendations, assuming residential traffic loading with occasional garbage truck and emergency vehicle loads.

Table 4. Structure Requirements for New HMA Pavement

Material Description	Pavement Minimum Layer Thickness (inches)	WSDOT Standard Specification
HMA	3	5-04
CSBC	4	9-03.9(3)

HMA: Hot Mix Asphalt
CSBC: Crushed Surfacing Base Course

We recommend that the HMA consist of Class ½-inch and the binder consist of PG 58H-22. Recommendations are presented below for subgrade preparation and structural fill placement and compaction for pavement reconstruction. The longitudinal joint in the HMA wearing course should coincide with the centerline of the roadway and not within a travel lane.

Placement of HMA

Placement of HMA should be in accordance with Section 5-04 of the WSDOT *Standard Specifications* (WSDOT, 2021). Particular attention should be paid to the following:

- HMA should not be placed until the engineer has accepted the previously constructed pavement layers.
- HMA should not be placed on any frozen or wet surface.
- HMA should not be placed when precipitation is anticipated before the pavement can be compacted, or before any other weather conditions which could prevent proper handling and compaction of HMA.
- HMA should not be placed when the average surface temperatures are less than 45° F.
- HMA temperature behind the paver should be in excess of 240° F. Compaction should be completed before the mix temperature drops below 180° F. Comprehensive temperature records should be kept during the HMA placement.
- For cold joints, tack coat should be applied to the edge to be joined and the paver screed should be set to overlap the first mat by 1 to 2 inches.

Drainage

It is essential to the satisfactory performance of the roadway that good drainage is provided to prevent water ponding on or alongside, or accumulating beneath, the pavement. Water ponding can cause saturation of the pavement and subgrade layers and lead to premature failure. The surface of the pavement should be sloped to convey water from the pavement to appropriate drainage facilities.

4.5 EARTHWORK

4.5.1 Subgrade Preparation

Subgrade preparation for the proposed improvements should begin with the removal of all existing pavement, topsoil, organic-rich soils, debris and vegetation. The soils should be excavated to the design elevation and thoroughly compacted.

The exposed subgrade soils should be evaluated to assess their suitability for support of the improvements. Areas accessible to fully-loaded dump trucks, or similar heavy, wheeled equipment, should be proof-rolled prior to placement of structural fill. Any areas exhibiting pumping or heaving should be delineated and over-excavated to reach competent soils, as determined by the geotechnical engineer. Areas inaccessible to large equipment should be evaluated by the geotechnical engineer using a T-handle probe, or other suitable method. Areas found to be soft/loose, or unsuitable, should be over-excavated to reach competent soils.

Backfill of any over-excavated areas should consist of structural fill, placed and compacted as described below.

4.5.2 Structural Fill Materials and Compaction

Any material used to support the pavement should consist of Crushed Surfacing Base Course (CSBC) as specified in Section 9-03.9(3) of the WSDOT Standard Specifications (WSDOT, 2021). Structural fill used to raise site grades, or backfill utility trench excavations, should consist of granular materials such as Gravel Borrow, meeting the requirements of Section 9-03.14(1) of the WSDOT Standard Specifications. Based on our subsurface explorations, we do not anticipate the on-site soils will be suitable for reuse as structural fill.

A sufficient number of modified Proctor tests should be performed on the materials to be used as structural fill to properly evaluate the compaction characteristics of the materials. A Geotechnical Engineer, or their representative, should perform full-time construction monitoring of all fill placement and compaction operations. If the on-site soils are placed either too wet or too dry of optimum moisture content, or if the soils are inadequately compacted, significant settlement should be anticipated.

Structural fill soils should be moisture conditioned, placed in loose horizontal lifts less than 8-inches thick, and compacted to at least 95% of the maximum dry density (MDD) as determined using test method ASTM D1557 (modified Proctor). Achievement of proper density of a compacted fill depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted and soil moisture-density properties. In areas where limited space restricts the use of heavy equipment, smaller equipment can be used, but the soil must be placed in thin enough layers to achieve the required relative compaction. Generally, loosely compacted soils result from poor construction technique and/or improper moisture content. Soils with high fines contents are particularly susceptible to becoming too wet, and coarse-grained materials easily become too dry for proper compaction.

4.5.3 Temporary Excavations

Any temporary excavations deeper than 4 feet should be sloped or shored in accordance with Part N of the Washington Administrative Code (WAC) 296-155 or shored. The near-surface soils classify as Type C soils. Temporary excavations in Type C soils may be no steeper than 1.5H:1V to meet safety requirements for worker access during construction. The recommended maximum allowable temporary slope cut inclinations are applicable to temporary excavations above the water table only. Flatter slopes may be required where ground water seepage is present.

The contractor should monitor the stability of the temporary cut slopes and adjust the construction schedule and slope inclination accordingly. The contractor should be responsible for control of ground and surface water and should employ sloping, slope protection, ditching, sumps, dewatering, and other measures as necessary to prevent sloughing of soils.

4.5.4 Wet Weather Earthwork

Some of the soils encountered contained a high fines content and will likely be difficult to place/compact or traverse with construction equipment during periods of wet weather. General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soil should be followed promptly by the placement of concrete or placement and compaction of structural fill material. The size and type of construction equipment used may need to be limited to prevent soil disturbance.
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water.
- The ground surface within the construction area should be sealed by a smooth drum roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture infiltration.
- Excavation and placement of fill material should be monitored to determine that the work is being accomplished in accordance with the project specifications and that the weather conditions do not adversely impact the quality of work.

4.6 UTILITY PIPE BEDDING AND BACKFILL

General recommendations relative to pipe bedding and utility trench backfill are presented below:

- Pipe bedding material, placement, compaction and shaping should be in accordance with the project specifications and the pipe manufacturer's recommendations. As a minimum, the pipe bedding should meet the gradation requirements for Gravel Backfill for Pipe Zone Bedding, Section 9.03.12(3) of the WSDOT *Standard Specifications* (WSDOT, 2021).
- Pipe bedding materials should be placed on relatively undisturbed native soils, or compacted fill soils. If the native subgrade soils are disturbed, the disturbed material should be removed and replaced with compacted bedding material.
- Although unlikely, the possibility may arise that in areas the trench bottom may encounter very soft or organic-rich subgrade soils, and it will be necessary to over-excavate the unsuitable material and backfill with pipe bedding material. We recommend that crushed rock meeting the requirements for Crushed Surfacing Top Course, as described in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2021), be used to backfill the over-excavated portions of the trench bottom.
- Pipe bedding should provide a firm, uniform, cradle for support of the pipe. We recommend that a minimum 4-inch thickness of bedding material beneath the pipe be provided. Greater

thicknesses may be necessary to prevent loosening and softening of the natural soils during pipe placement.

- Pipe bedding material and/or backfill around the pipe should be placed in layers and tamped to obtain complete contact with the pipe.
- During placement of the initial lifts, the trench backfill material should not be bulldozed into the trench or dropped directly on the pipe. Furthermore, heavy equipment should not be permitted to operate directly over the pipe until a minimum of 2 feet of backfill has been placed. Trench backfill should be placed in 8-inch (maximum) thick lifts and compacted using mechanical equipment to at least 95% of its maximum dry density, as determined by testing in general accordance with ASTM D1557 (modified Proctor).

5. CONDITIONS AND LIMITATIONS

We have prepared this report for Parametrix and the Tulalip Tribe for use in design of this project. The conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and ground water conditions can vary significantly over small distances.

Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work 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.



September 27, 2021
HWA Project No. 2021-036-21

We appreciate the opportunity to provide geotechnical services on this project. Should you have any questions or comments, or if we may be of further service, please do not hesitate to call.

Sincerely,

HWA GEOSCIENCES INC.

Bryan Hawkins, P.E.
Senior Geotechnical Engineer

Steven E. Greene, L.G., L.E.G
Principal Engineering Geologist

LIST OF FIGURES (FOLLOWING TEXT)

Figure 1	Vicinity Map
Figure 2	Site and Exploration Plan
Figure 3	Geologic Map
Figure 4	Massmann Analysis Table

Appendices

Appendix A: Field Investigation

Figure A-1	Legend of Terms and Symbols Used on Exploration Logs
Figures A-2 – A-6	Logs of Boreholes BH-07 through BH-11
Figures A-7 – A-9	Logs of Hand Borings HH-1 through HH-3

Appendix B: Laboratory Testing

Figures B-1 & B-2	Summary of Material Properties
Figures B-3 – B-5	Particle Size Analysis of Soils

6. REFERENCES

Department of Ecology, 2019, *Stormwater Management Manual for Western Washington*, State of Washington, Publication Number 19-10-021, dated July 2019.

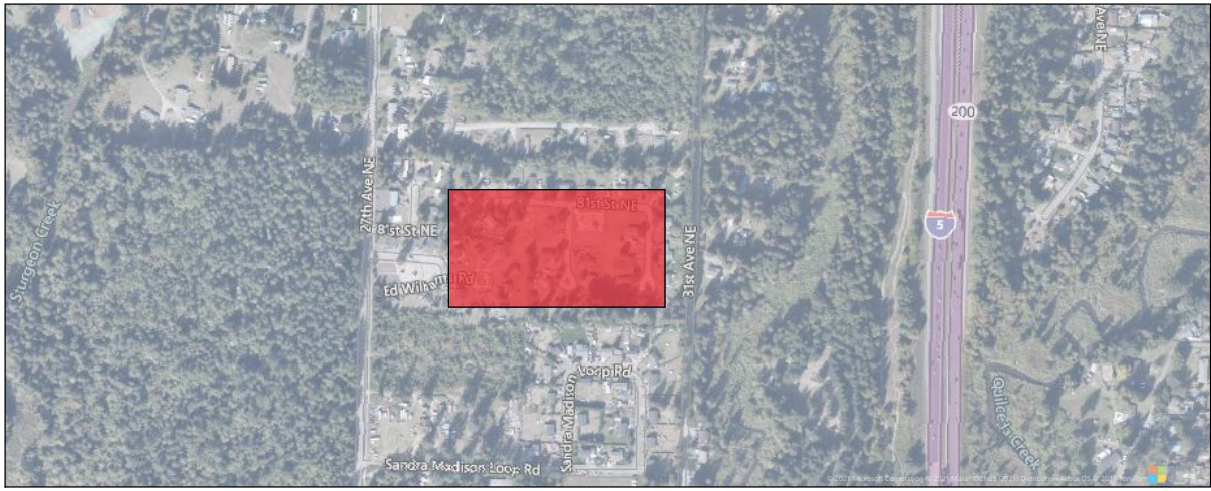
Frans, L.M., and Kresch, D.L., 2004, *Water resources of the Tulalip Indian Reservation and adjacent area, Snohomish County, Washington, 2001–03*: U.S. Geological Survey Scientific Investigations Report 2004–5166, 86 p.

Minard, J.P., 1985, *Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington*, U S Geological Survey Misc. Field Studies Map MF-1744.

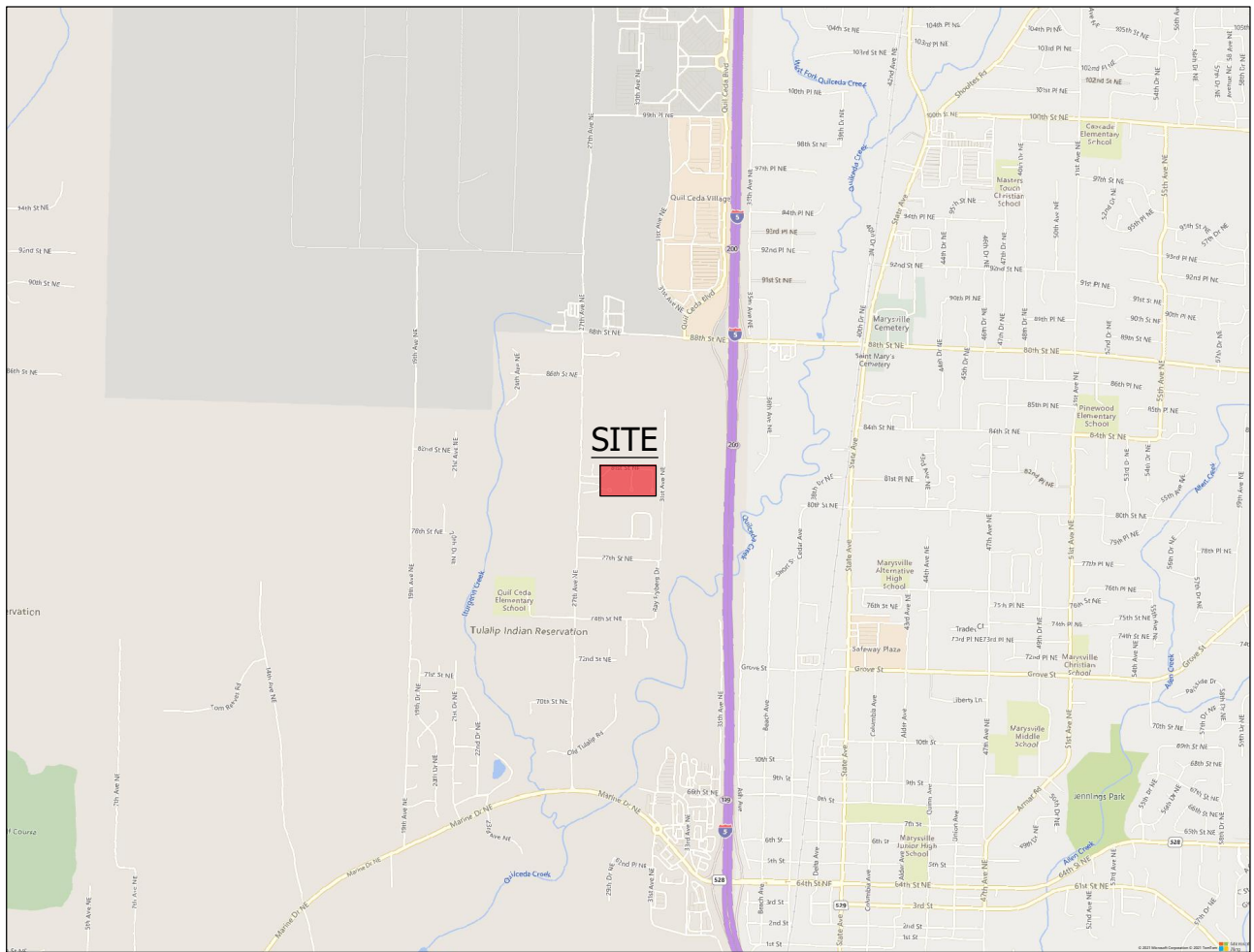
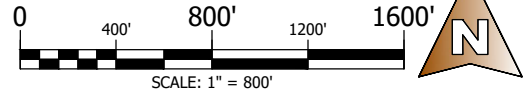
Snohomish County, 2016, *Snohomish County Drainage Manual*.

WSDOT, 2019, *Geotechnical Design Manual*, Washington State Department of Transportation, dated July 1, 2019.

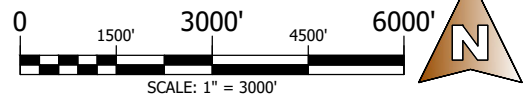
WSDOT, 2021, *Standard Specifications for Road, Bridge, and Municipal Construction*, M 41-10.



SITE MAP



VICINITY MAP



SITE AND VICINITY MAP
TULALIP ROAD PRESERVATION
81ST STREET NE
TULALIP, WASHINGTON

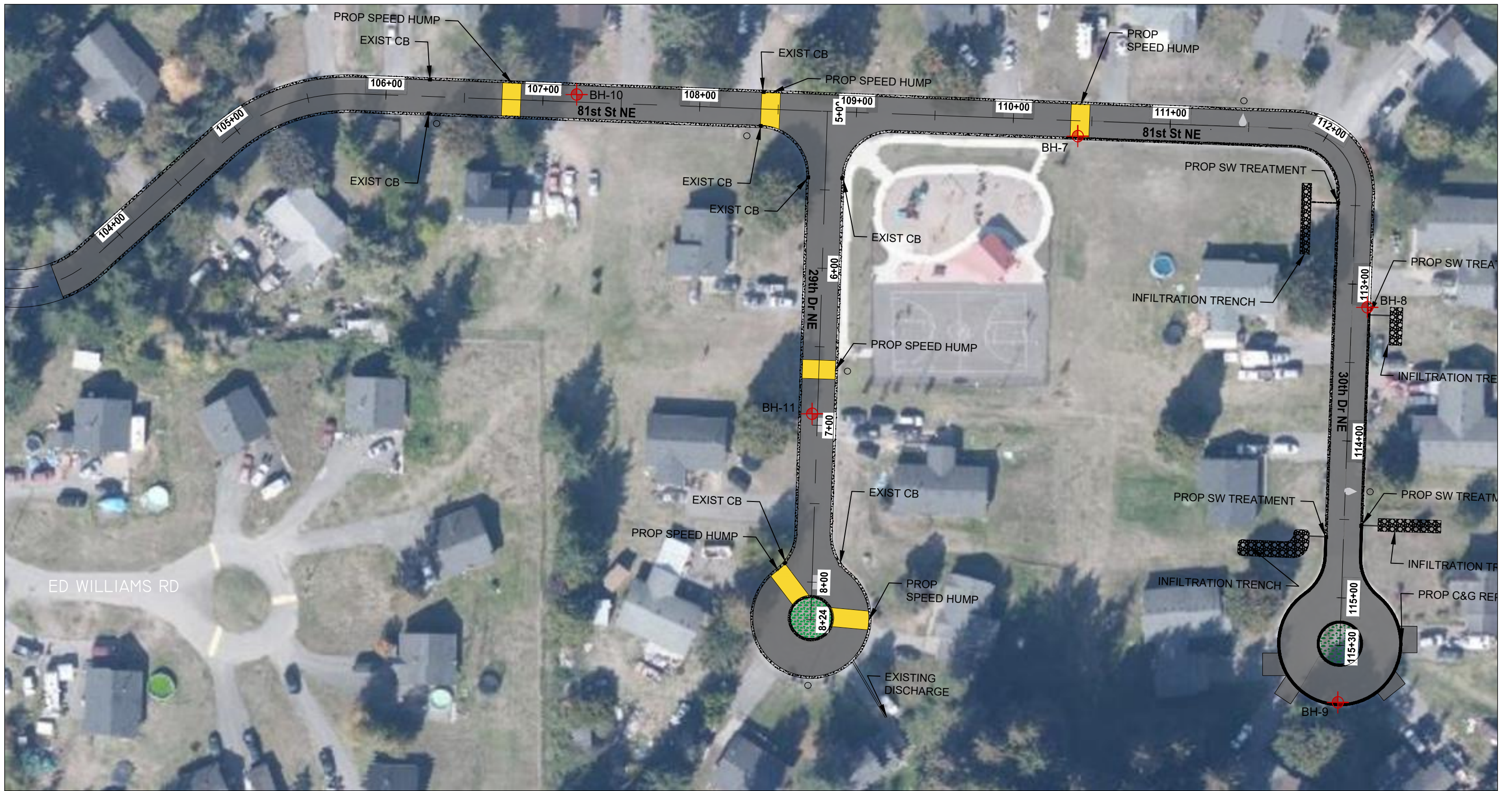
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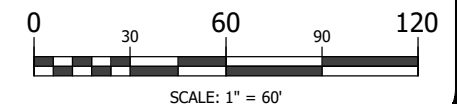


EXPLORATION LEGEND

BH-7 BOREHOLE DESIGNATION AND APPROXIMATE LOCATION

81ST STREET NE

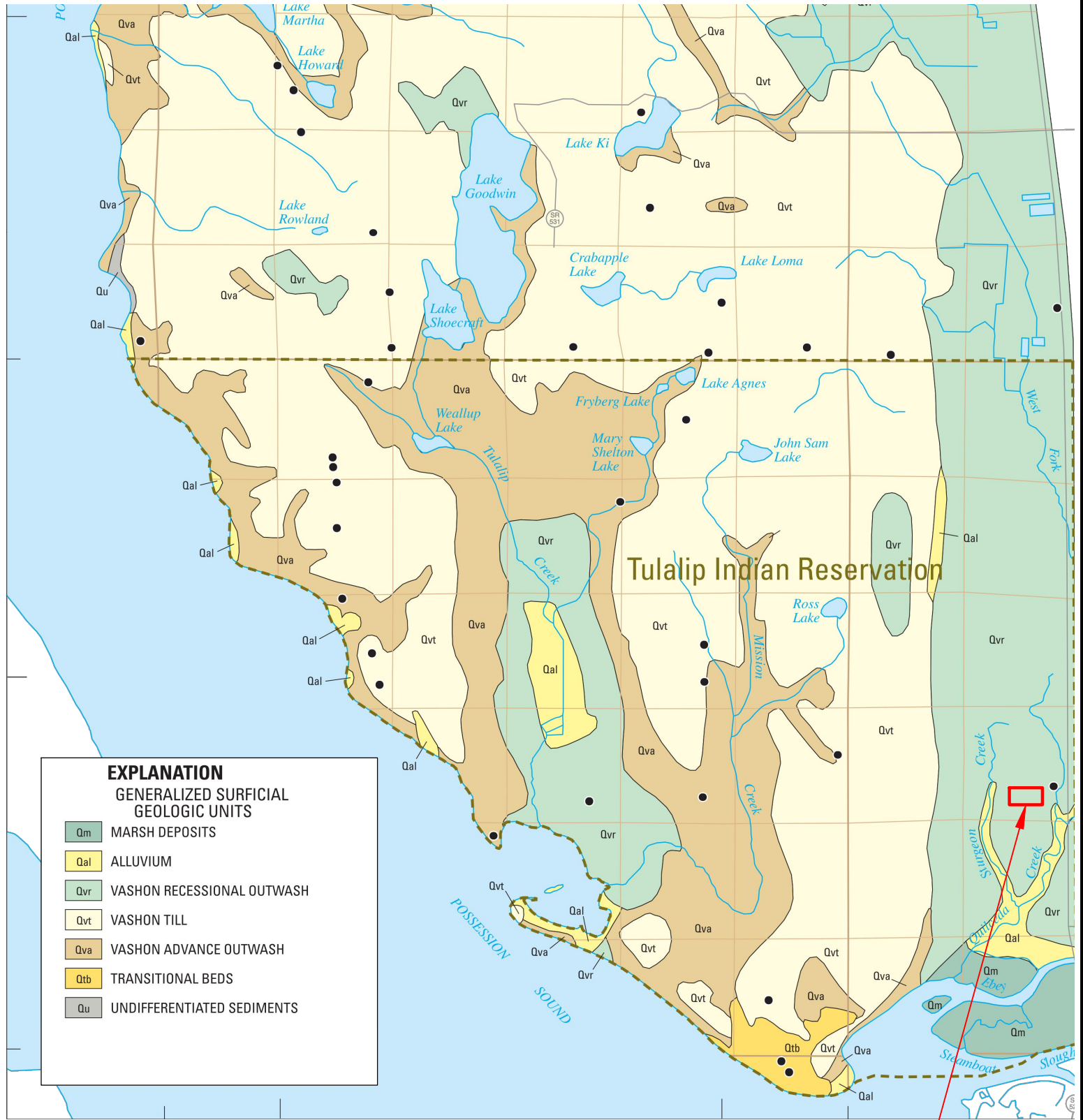
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TULALIP ROAD PRESERVATION
81ST STREET NE
TULALIP, WASHINGTON

SITE &
EXPLORATION PLAN

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**APPROXIMATE
SITE LIMITS**

EXPLANATION
GENERALIZED SURFICIAL
GEOLOGIC UNITS

- Qm MARSH DEPOSITS
- Qal ALLUVIUM
- Qvr VASHON RECESSONAL OUTWASH
- Qvt VASHON TILL
- Qva VASHON ADVANCE OUTWASH
- Qtb TRANSITIONAL BEDS
- Qu UNDIFFERENTIATED SEDIMENTS

BASE MAP PROVIDED BY: SCIENTIFIC INVESTIGATIONS REPORT 2004-5166, SURFICIAL GEOLOGY, SELECTED WELLS, AND HYDROGEOLOGIC UNITS AND SECTIONS - PLATE 1, FRANS, L.M., AND KRESCH D.L., 2004, WATER RESOURCES OF THE TULALIP INDIAN RESERVATION AND ADJACENT AREA, SNOHOMISH COUNTY, WASHINGTON, 2001-03

NOT TO SCALE



GEOLOGIC MAP
TULALIP ROAD PRESERVATION
81ST STREET NE
TULALIP, WASHINGTON

FIGURE NO.:
3
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PROJECT #
2021-036-21

												Ksat_initial	Correction Factors			Total Correction Factor	Ksat_design
Exploration Designation	Top Depth (ft)	Bottom Depth (ft)	Moisture Content (%)	ASTM Classification	D10 (mm)	D60 (mm)	D90 (mm)	finer (%)	finer (fraction)	LOG10 (Ks)	Ks (cm/sec)	Ks (in/hr)	CFv	CFt	CFm	CFT	Ks (in/hr)
BH-08, S-2	2.5	4	5	SP	0.17	0.36	0.64	4.6	0.046	-1.3456	0.04512321	63.95	0.9	0.4	0.9	0.324	20.72
HH-1, S-2	2.5	9	3	SP	0.18	0.37	0.6	2.1	0.021	-1.27393	0.0532194	75.43	0.9	0.4	0.9	0.324	24.44
HH-2, S-1	1	6.5	9	SM	0.023	0.26	0.56	21.8	0.218	-1.98312	0.01039633	14.73	0.9	0.4	0.9	0.324	4.77
HH-3, S-2	1.67	14	3	SP	0.19	0.46	1.05	1.9	0.019	-1.25527	0.05555588	78.74	0.9	0.4	0.9	0.324	25.51

APPENDIX A

SUBSURFACE EXPLORATIONS















RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000








TEST SYMBOLS

%F	Percent Fines
AL	Atterberg Limits: PL = Plastic Limit, LL = Liquid Limit
CBR	California Bearing Ratio
CN	Consolidation
DD	Dry Density (pcf)
DS	Direct Shear
GS	Grain Size Distribution
K	Permeability
MD	Moisture/Density Relationship (Proctor)
MR	Resilient Modulus
OC	Organic Content
pH	pH of Soils
PID	Photoionization Device Reading
PP	Pocket Penetrometer (Approx. Comp. Strength, tsf)
Res.	Resistivity
SG	Specific Gravity
CD	Consolidated Drained Triaxial
CU	Consolidated Undrained Triaxial
UU	Unconsolidated Undrained Triaxial
TV	Torvane (Approx. Shear Strength, tsf)
UC	Unconfined Compression



USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)		GW Well-graded GRAVEL
		Gravel with Fines (appreciable amount of fines)		GP Poorly-graded GRAVEL
	Sand and Sandy Soils	Clean Sand (little or no fines)		SW Well-graded SAND
		Sand with Fines (appreciable amount of fines)		SP Poorly-graded SAND
More than 50% Retained on No. 200 Sieve Size	50% or More of Coarse Fraction Passing No. 4 Sieve	Silty SAND		SM Silty SAND
		Clayey SAND		SC Clayey SAND
		SILT		ML SILT
	Liquid Limit Less than 50%	Lean CLAY		CL Lean CLAY
		Organic SILT/Organic CLAY		OL Organic SILT/Organic CLAY
		Elastic SILT		MH Elastic SILT
50% or More Passing No. 200 Sieve Size	Liquid Limit 50% or More	Fat CLAY		CH Fat CLAY
		Organic SILT/Organic CLAY		OH Organic SILT/Organic CLAY
		PEAT		PT PEAT
Highly Organic Soils				PT PEAT

SAMPLE TYPE SYMBOLS

	2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
	Shelby Tube
	Non-standard Penetration Test (3.0" OD Split Spoon with Brass Rings)
	Small Bag Sample
	Large Bag (Bulk) Sample
	Core Run
	3-1/4" OD Split Spoon

GROUNDWATER SYMBOLS

	Groundwater Level (measured at time of drilling)
	Groundwater Level (measured in well or open hole after water level stabilized)

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS
< 5%	Clean
5 - 12%	Slightly (Clayey, Silty, Sandy)
12 - 30%	Clayey, Silty, Sandy, Gravelly
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)
Components are arranged in order of increasing quantities.	

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.

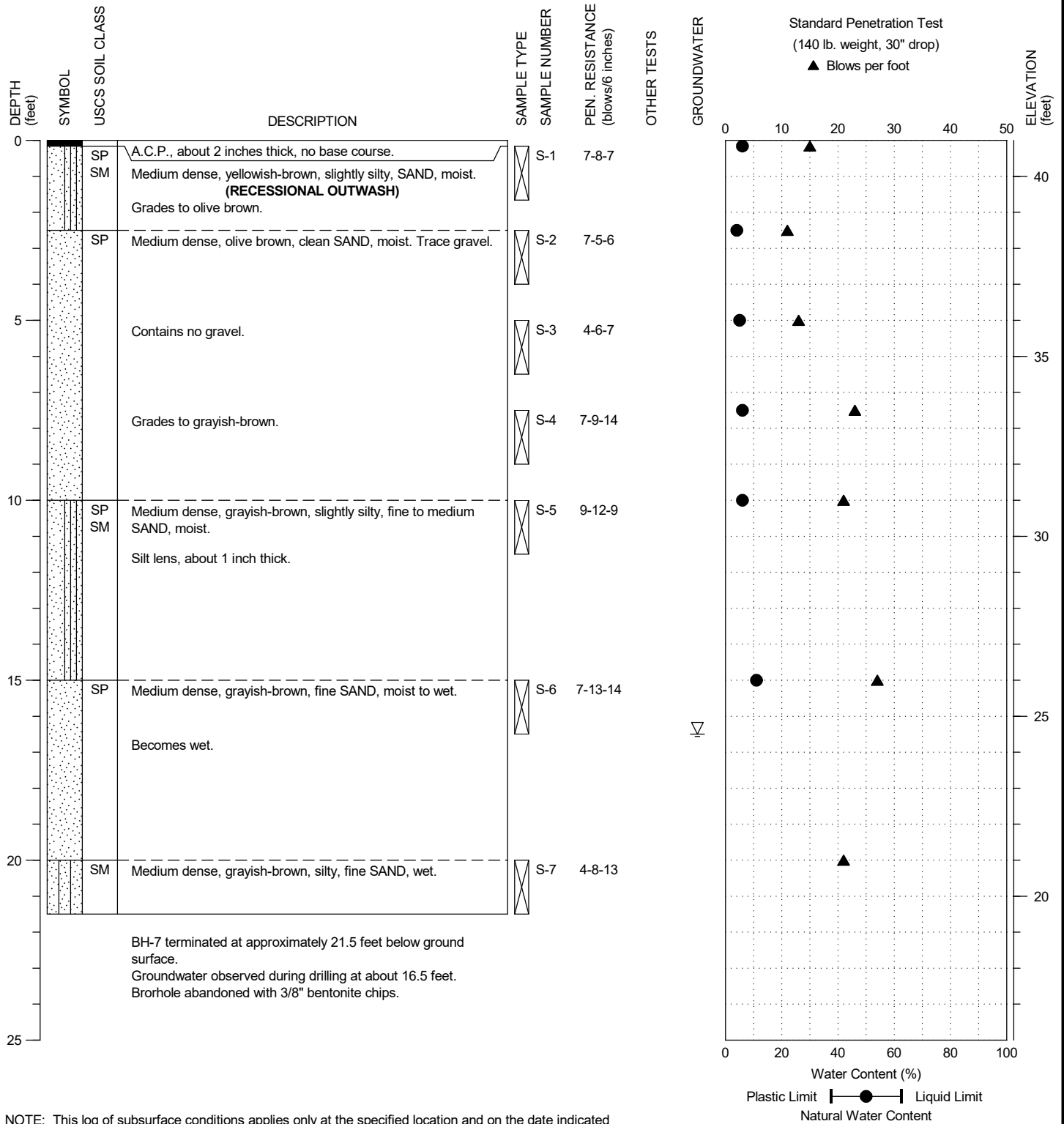


Tulip Pavement Preservation
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LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT w/Autohammer
 LOCATION: 48.06990783, -122.19074279, See Figure 2.

DATE STARTED: 8/6/2021
 DATE COMPLETED: 8/6/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 41.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-07

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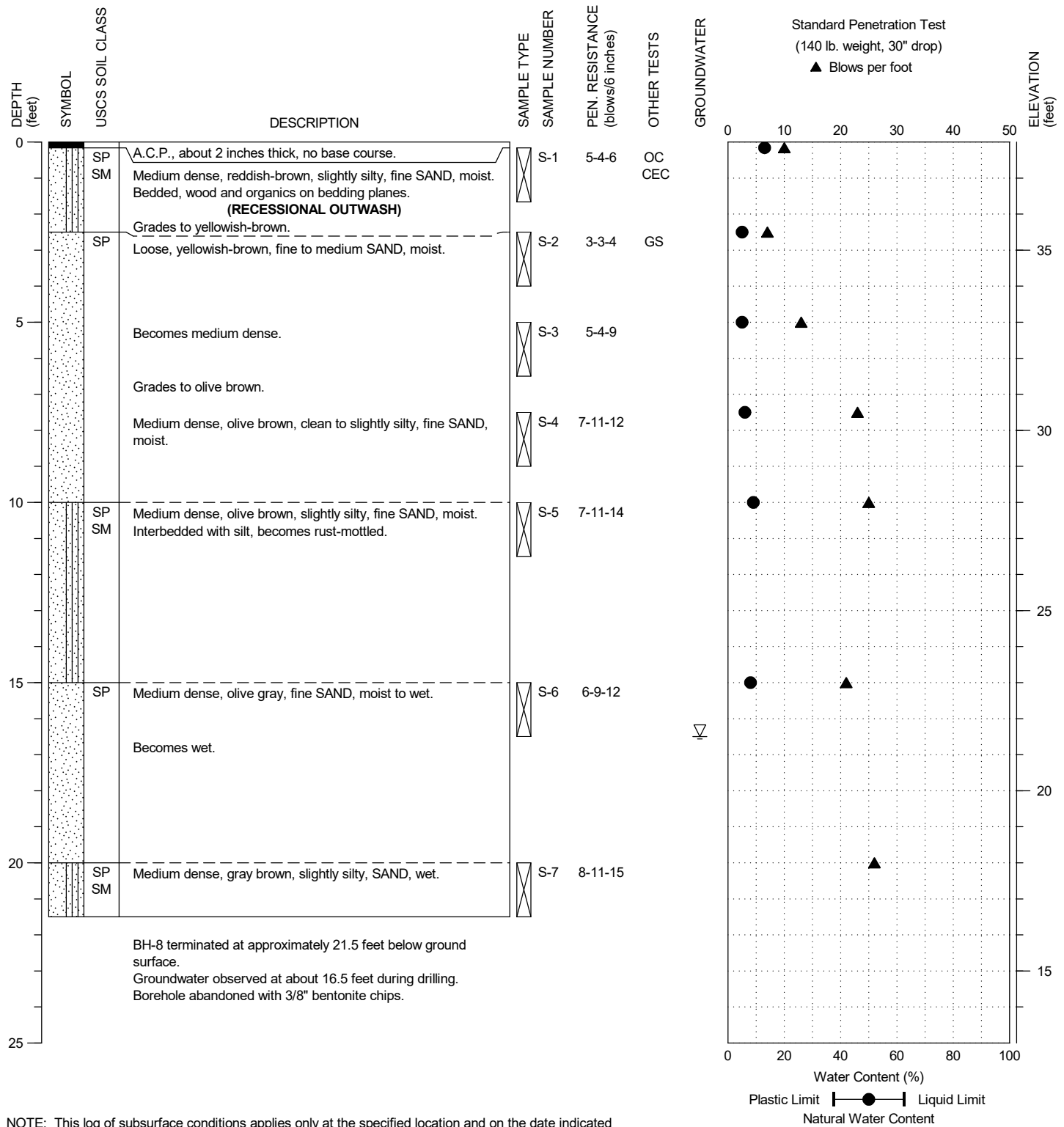
PROJECT NO.: 2021-036-21

FIGURE:

A-2

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT w/Autohammer
 LOCATION: 48.06959160, -122.18994469, See Figure 2.

DATE STARTED: 8/6/2021
 DATE COMPLETED: 8/6/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 38.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-08

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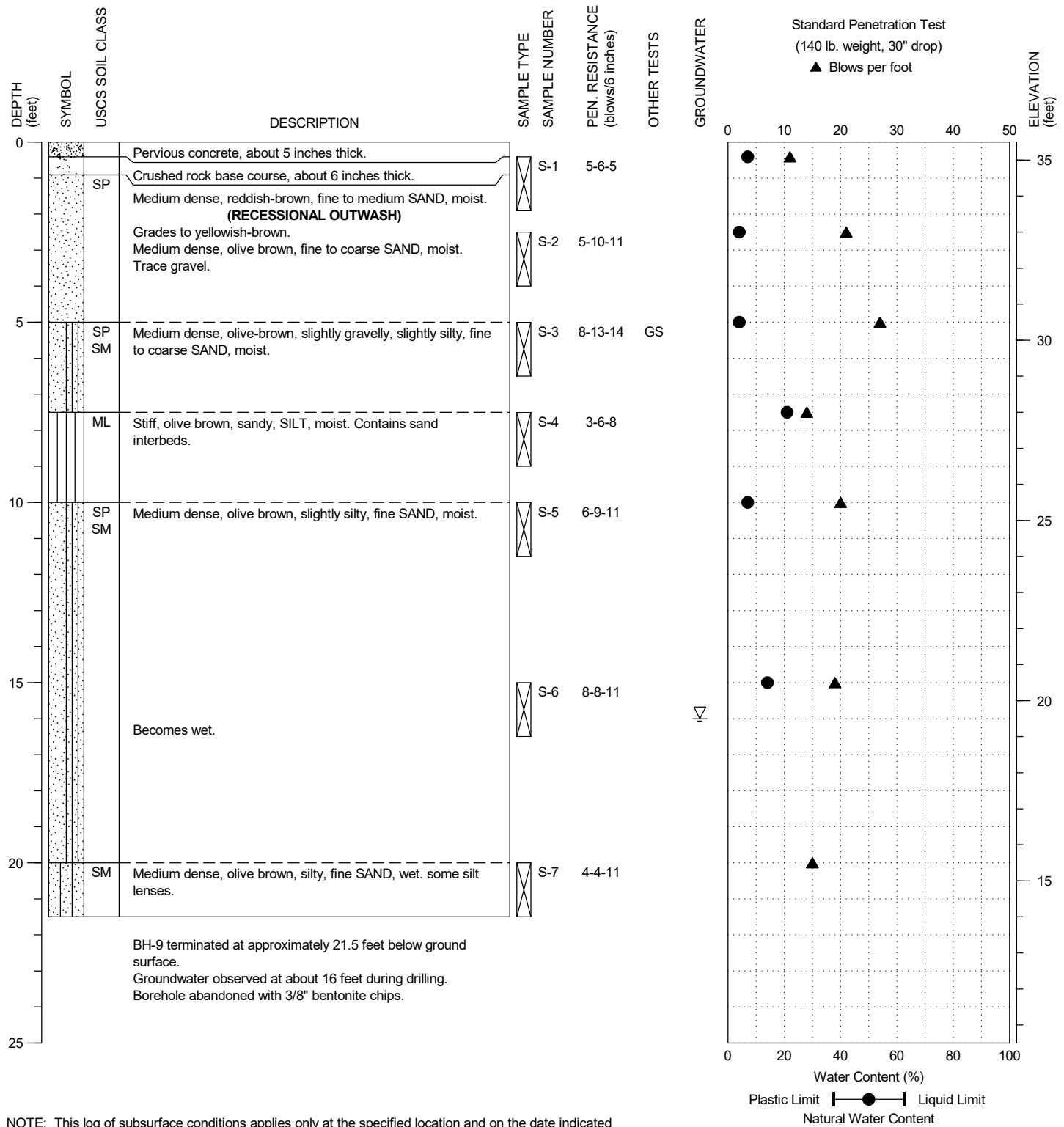
PROJECT NO.: 2021-036-21

FIGURE:

A-3

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT w/Autohammer
 LOCATION: 48.06894126, -122.19002323, See Figure 2.

DATE STARTED: 8/6/2021
 DATE COMPLETED: 8/6/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 35.5 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



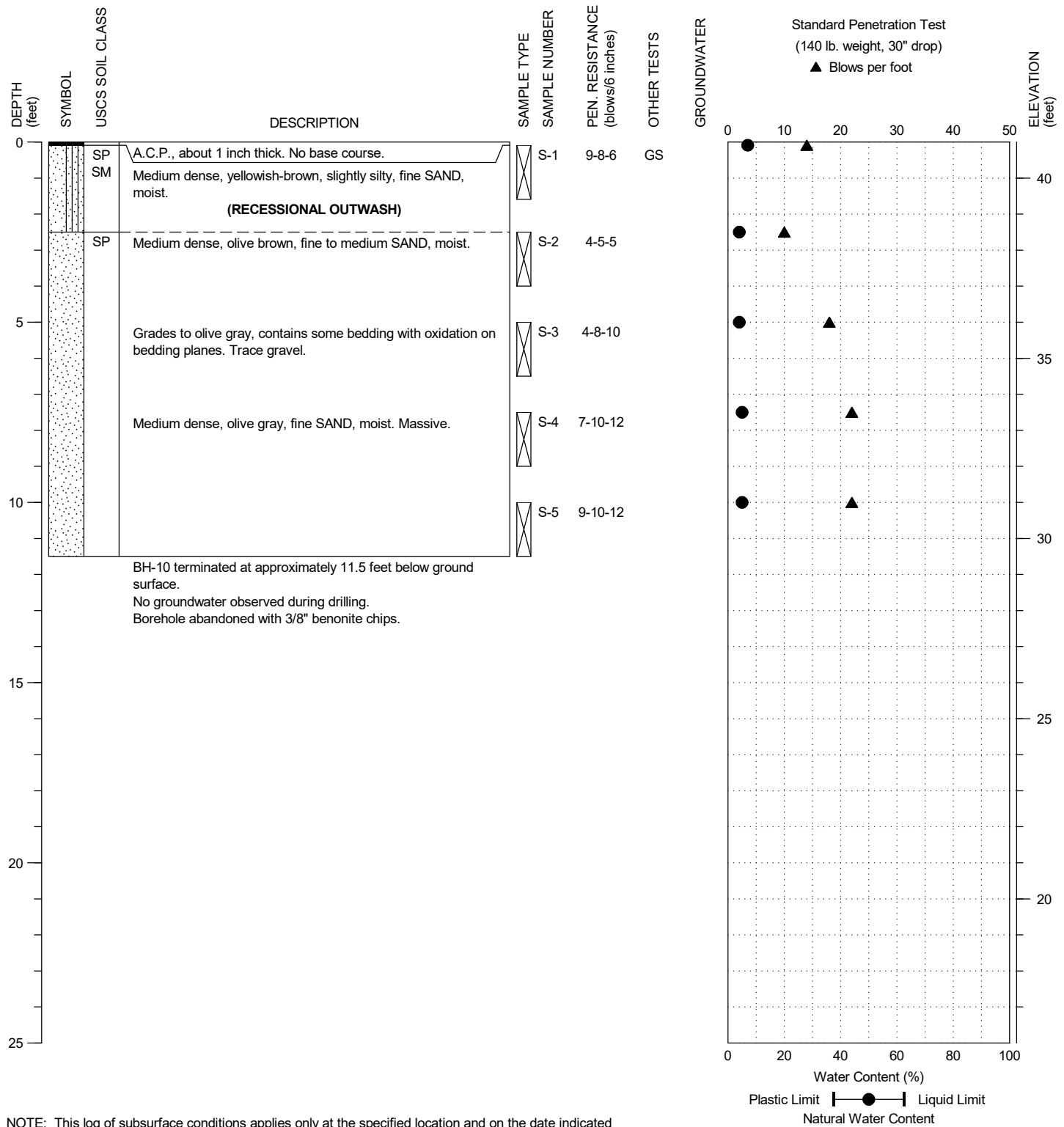
Tulalip Pavement Preservation
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 81th Street NE, 29th and 30th Drive NE
 Tulalip, Washington

BORING:
 BH-09

PAGE: 1 of 1

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT w/Autohammer
 LOCATION: 48.06996521, -122.19203242, See Figure 2.

DATE STARTED: 8/5/2021
 DATE COMPLETED: 8/5/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 41.0 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-10

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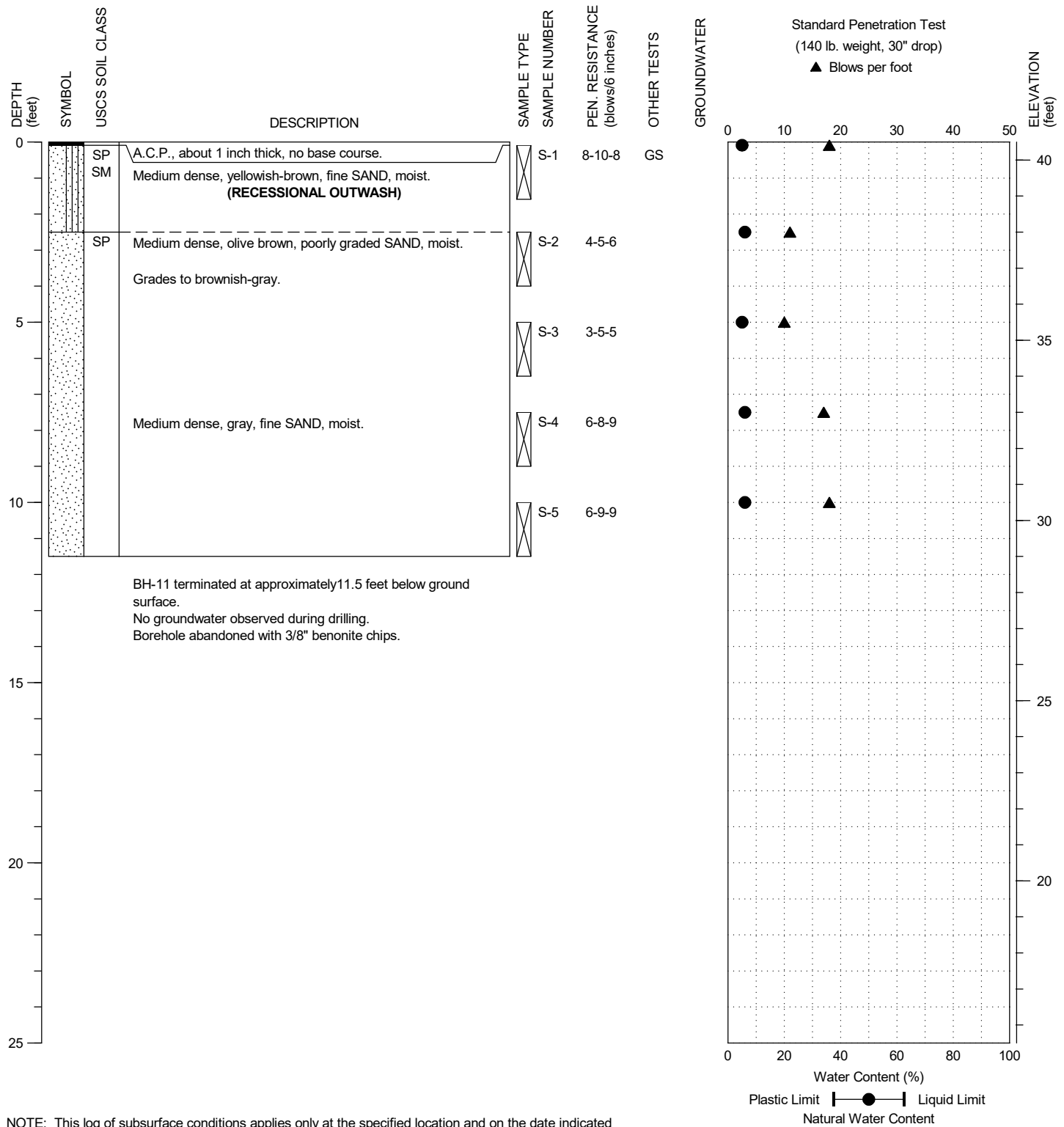
PROJECT NO.: 2021-036-21

FIGURE:

A-5

DRILLING COMPANY: Holocene Drilling
 DRILLING METHOD: HSA, Diedrich D-90 Truck Rig
 SAMPLING METHOD: SPT w/Autohammer
 LOCATION: 48.06941508, -122.19140437, See Figure 2.

DATE STARTED: 8/5/2021
 DATE COMPLETED: 8/5/2021
 LOGGED BY: M.A. Benson
 SURFACE ELEVATION: 40.5 ± feet



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
 BH-11

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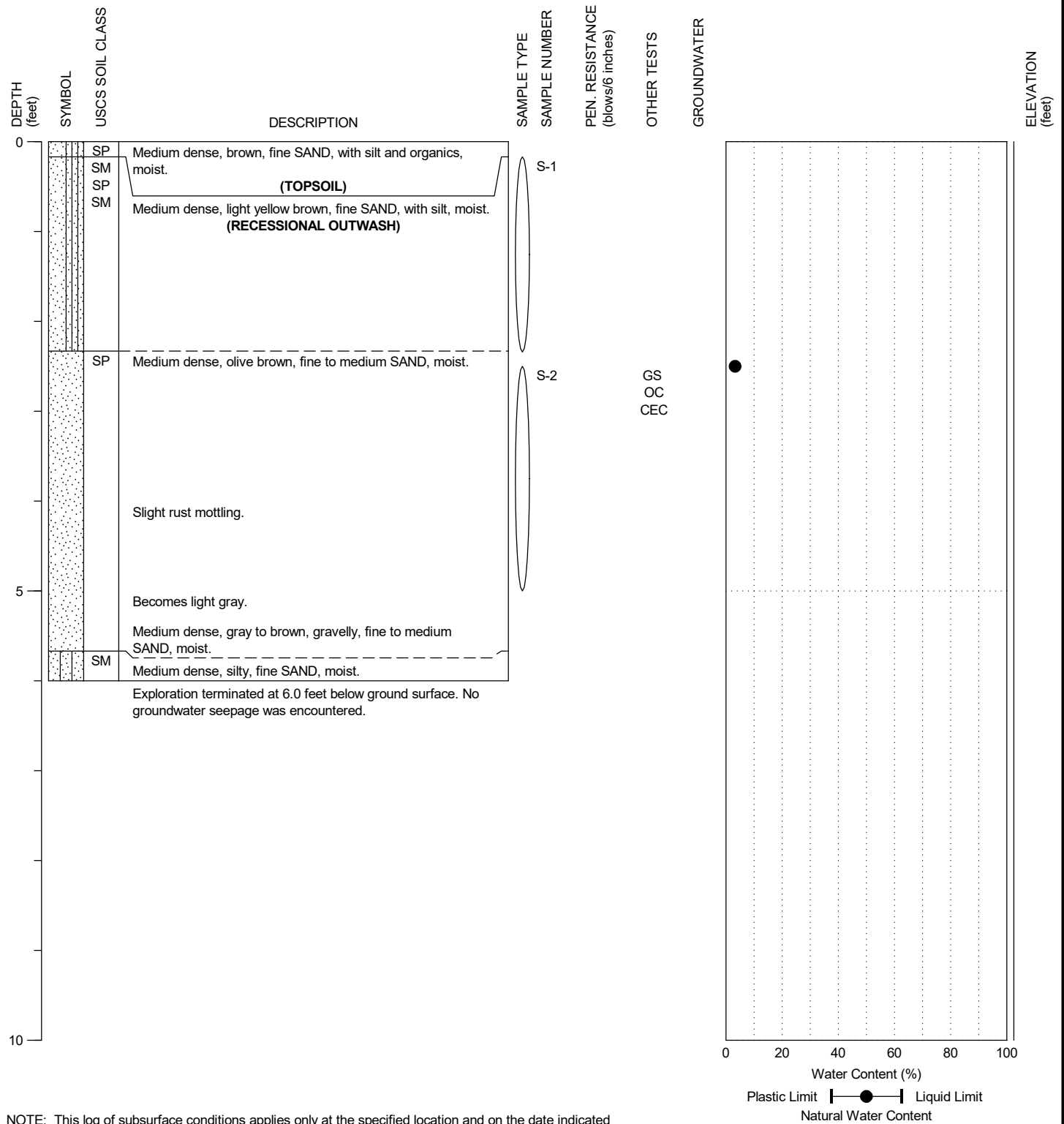
PROJECT NO.: 2021-036-21

FIGURE:

A-6

DRILLING COMPANY: HWA GeoSciences Inc.
 DRILLING METHOD: Hand Auger
 SAMPLING METHOD: Grab
 LOCATION: See Figure 2

DATE STARTED: 8/9/2021
 DATE COMPLETED: 8/9/2021
 LOGGED BY: V. Oskierko



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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HAND HOLE:
 HH-1

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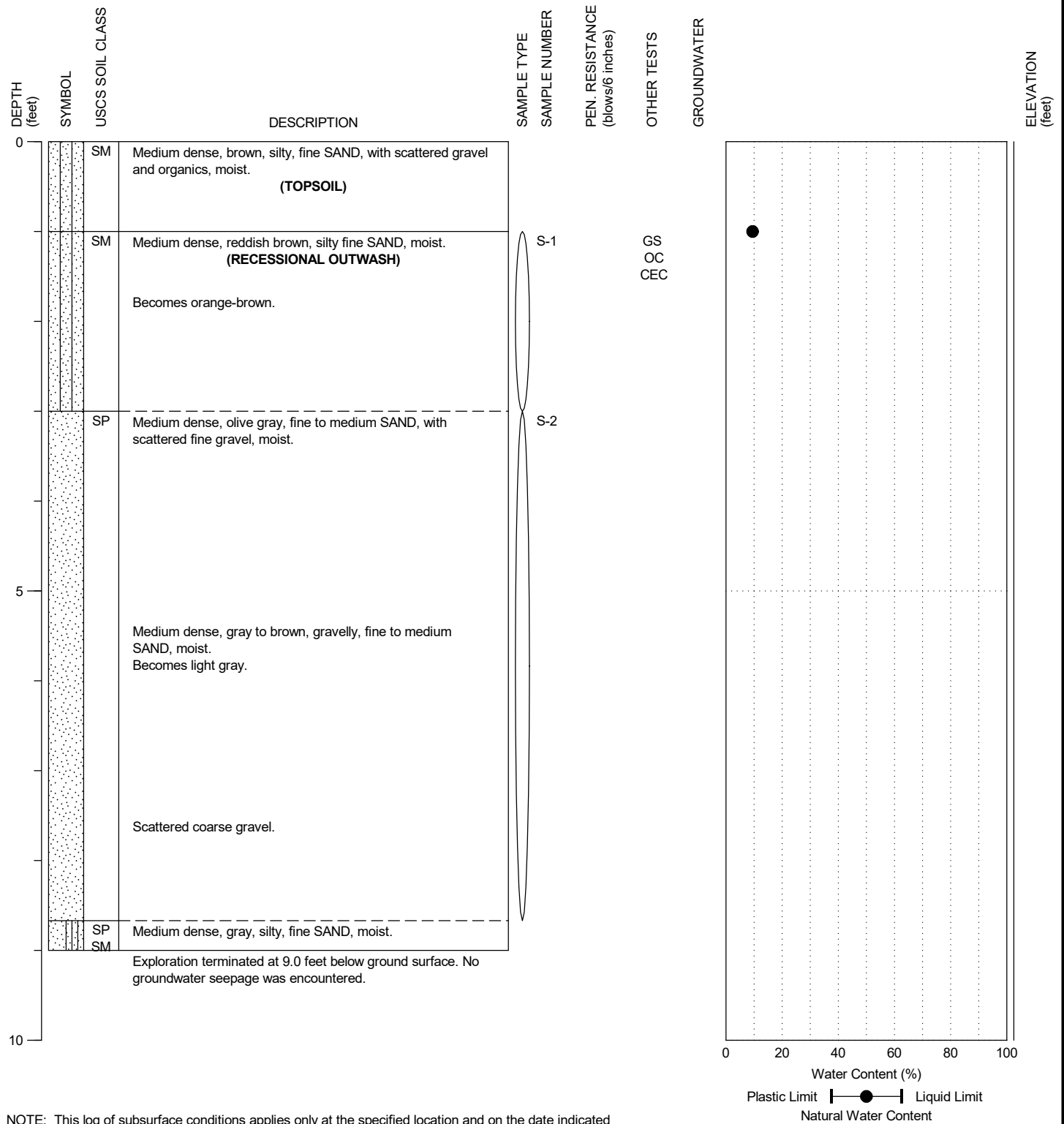
PROJECT NO.: 2021-036-21

FIGURE:

A-7

DRILLING COMPANY: HWA GeoSciences Inc.
 DRILLING METHOD: Hand Auger
 SAMPLING METHOD: Grab
 LOCATION: See Figure 2

DATE STARTED: 8/9/2021
 DATE COMPLETED: 8/9/2021
 LOGGED BY: V. Oskierko



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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HAND HOLE:
 HH-2

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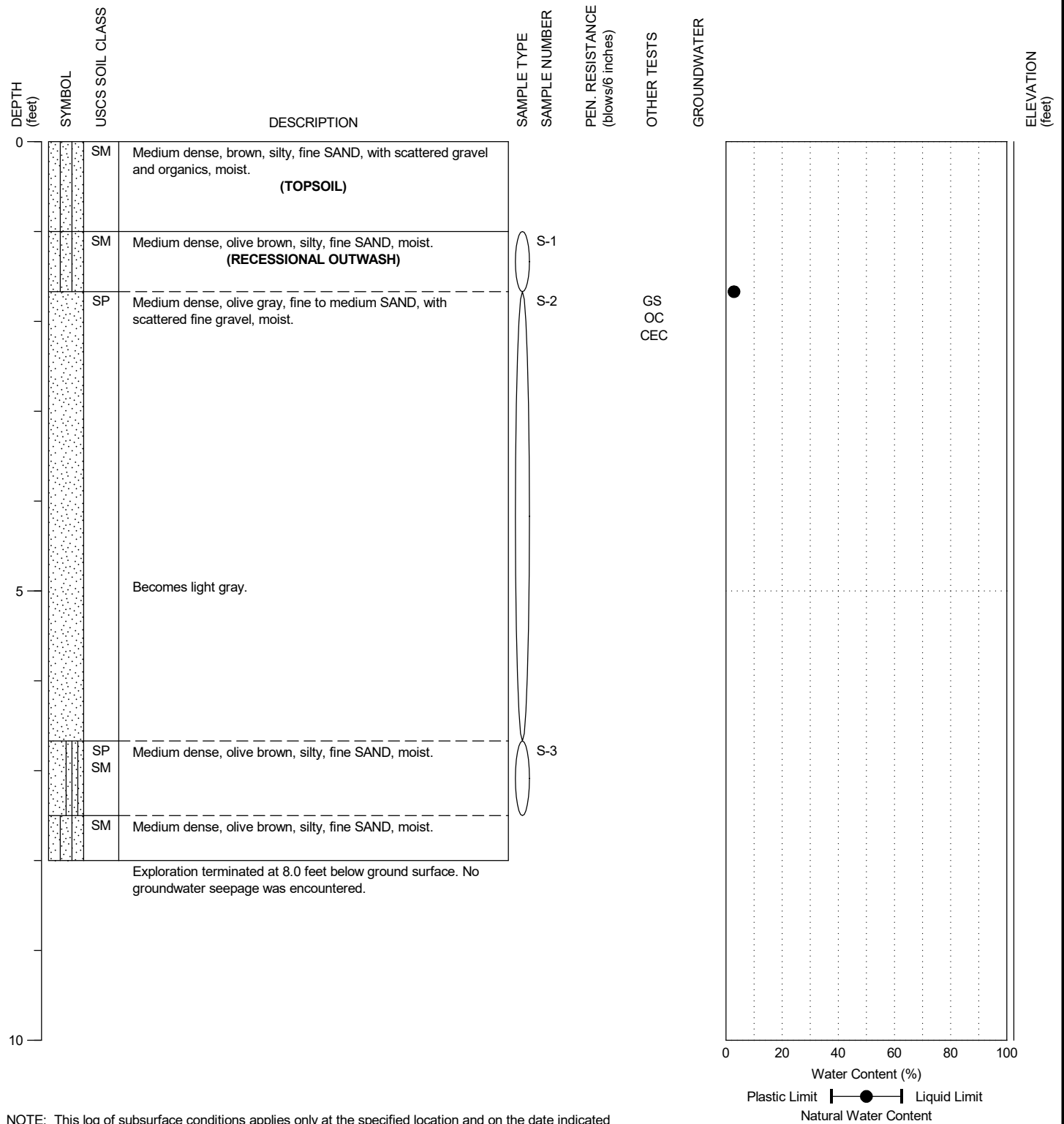
PROJECT NO.: 2021-036-21

FIGURE:

A-8

DRILLING COMPANY: HWA GeoSciences Inc.
 DRILLING METHOD: Hand Auger
 SAMPLING METHOD: Grab
 LOCATION: See Figure 2

DATE STARTED: 8/9/2021
 DATE COMPLETED: 8/9/2021
 LOGGED BY: V. Oskierko



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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HAND HOLE:
 HH-3

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APPENDIX B

LABORATORY TEST RESULTS

APPENDIX B

LABORATORY TESTING

Representative soil samples obtained from the explorations were placed in plastic bags to prevent loss of moisture and transported to HWA's laboratory in Bothell, Washington, for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. Laboratory testing was conducted as described below:

MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary logs in Appendix A and the Summary of Material Properties report, Figures B-1 and B-2.

PARTICLE SIZE ANALYSIS OF SOILS: Selected samples were tested to determine the particle (grain) size distribution of material in general accordance with ASTM D 6913 using either the wet sieve or wet sieve and hydrometer methods. The results are summarized on the attached Particle Size Analysis of Soils reports, Figures B-3 through B-5, which also provide information regarding the classification of the sample, and the moisture content at the time of testing.

MOISTURE CONTENT, ASH, AND ORGANIC MATTER: Selected samples were tested in general accordance with method ASTM D 2974, using moisture content method 'A' (oven dried at 105⁰ C) and ash content method 'C' (burned at 440⁰ C). The test results are summarized below and reported within the relevant report section. The results are percent by weight of dry soil and provided below.

Moisture Content, Ash, and Organic Matter			
Sample	Moisture Content (%)	Ash Content (%)	Organic Content (%)
BH-08, S-2	4.8	98.8	1.2
HH-1, S-2	3.2	98.7	1.3
HH-2, S-1	10.2	95.7	4.3
HH-3, S-2	3.0	98.8	1.2

CATION EXCHANGE CAPACITY (CEC); Selected samples were delivered to SoilTest Farm Consultants of Moses Lake, Washington for determination of Cation Exchange Capacity. The test results are summarized below and reported within the relevant report section. The individual data reports are attached below.

Cation Exchange Capacity of Soils	
Sample	Cation Exchange Capacity (meq / 100 g)
BH-08, S-2	4.4
HH-1, S-2	1.7
HH-2, S-1	4.6
HH-3, S-2	1.6

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%) (440° C)	ORGANIC CONTENT (%) (750° C)	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% SILT	% CLAY	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI						
BH-07	0.2	1.7	6.0										SP-SM	Dark olive-brown, poorly graded SAND with silt
BH-07	2.5	4.0	4.3										SP-SM	Dark olive-brown, poorly graded SAND with silt and gravel
BH-07	5.0	6.5	4.7										SP-SM	Dark olive-brown, poorly graded SAND with silt
BH-07	7.5	9.0	6.0										SP-SM	Olive-brown, poorly graded SAND with silt
BH-07	10.0	11.5	6.3										SP-SM	Olive-brown, poorly graded SAND with silt and gravel
BH-07	15.0	16.5	11.4										SP-SM	Olive-brown, poorly graded SAND with silt
BH-08	0.2	1.7	13.3										SP-SM	Dark reddish-brown, poorly graded SAND with silt
BH-08	2.5	4.0	5.2	1.2				1.8	93.6				SP	Olive-brown, poorly graded SAND
BH-08	5.0	6.5	5.0										SP-SM	Olive-brown, poorly graded SAND with silt
BH-08	7.5	9.0	6.4										SP-SM	Light olive-brown, poorly graded SAND with silt
BH-08	10.0	11.5	9.3										SP-SM	Olive-brown, poorly graded SAND with silt
BH-08	15.0	16.5	8.1										SP-SM	Dark grayish-brown, poorly graded SAND with silt
BH-09	0.4	1.9	7.2										SP-SM	Reddish-brown, poorly graded SAND with silt and gravel
BH-09	2.5	4.0	3.6										SP-SM	Dark olive-brown, poorly graded SAND with silt
BH-09	5.0	6.5	4.1					20.0	75.0				SP-SM	Olive-brown, poorly graded SAND with silt and gravel
BH-09	7.5	9.0	21.2										SM	Olive-brown, silty SAND
BH-09	10.0	11.5	7.2										SP-SM	Grayish-brown, poorly graded SAND with silt
BH-09	15.0	16.5	13.7										SP-SM	Dark grayish-brown, poorly graded SAND with silt
BH-10	0.1	1.6	7.4					1.2	88.5				SP-SM	Yellowish-brown, poorly graded SAND with silt
BH-10	2.5	4.0	4.2										SP-SM	Olive-brown, poorly graded SAND with silt

Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report text, other graphs and tables, and the exploration logs.
2. The classification of soils in this table is based on ASTM D2487 and D2488 as applicable.



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SUMMARY OF
MATERIAL PROPERTIES

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PROJECT NO.: 2021-036-21

FIGURE: B-1

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%) (440° C)	ORGANIC CONTENT (%) (750° C)	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% SILT	% CLAY	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI						
BH-10	5.0	6.5	3.9										SP-SM	Grayish-brown, poorly graded SAND with silt and gravel
BH-10	7.5	9.0	5.4										SP-SM	Grayish-brown, poorly graded SAND with silt
BH-10	10.0	11.5	5.2										SP-SM	Grayish-brown, poorly graded SAND with silt
BH-11	0.1	1.6	5.5					0.9	91.4				SP-SM	Yellowish-brown, poorly graded SAND with silt
BH-11	2.5	4.0	5.6										SP-SM	Olive-brown, poorly graded SAND with silt
BH-11	5.0	6.5	5.3										SP-SM	Olive-brown, poorly graded SAND with silt
BH-11	7.5	9.0	5.7										SP-SM	Olive-brown, poorly graded SAND with silt
BH-11	10.0	11.5	6.1										SP-SM	Dark olive-brown, poorly graded SAND with silt
HH-1	2.5	5.0	3.2	1.3				0.2	97.6				SP	Olive-brown, poorly graded SAND
HH-2	1.0	3.0	9.5	4.3				0.0	78.2	20.6	1.2		SM	Dark reddish-brown, silty SAND
HH-3	1.7	6.7	2.8	1.2				5.5	92.6				SP	Olive-brown, poorly graded SAND

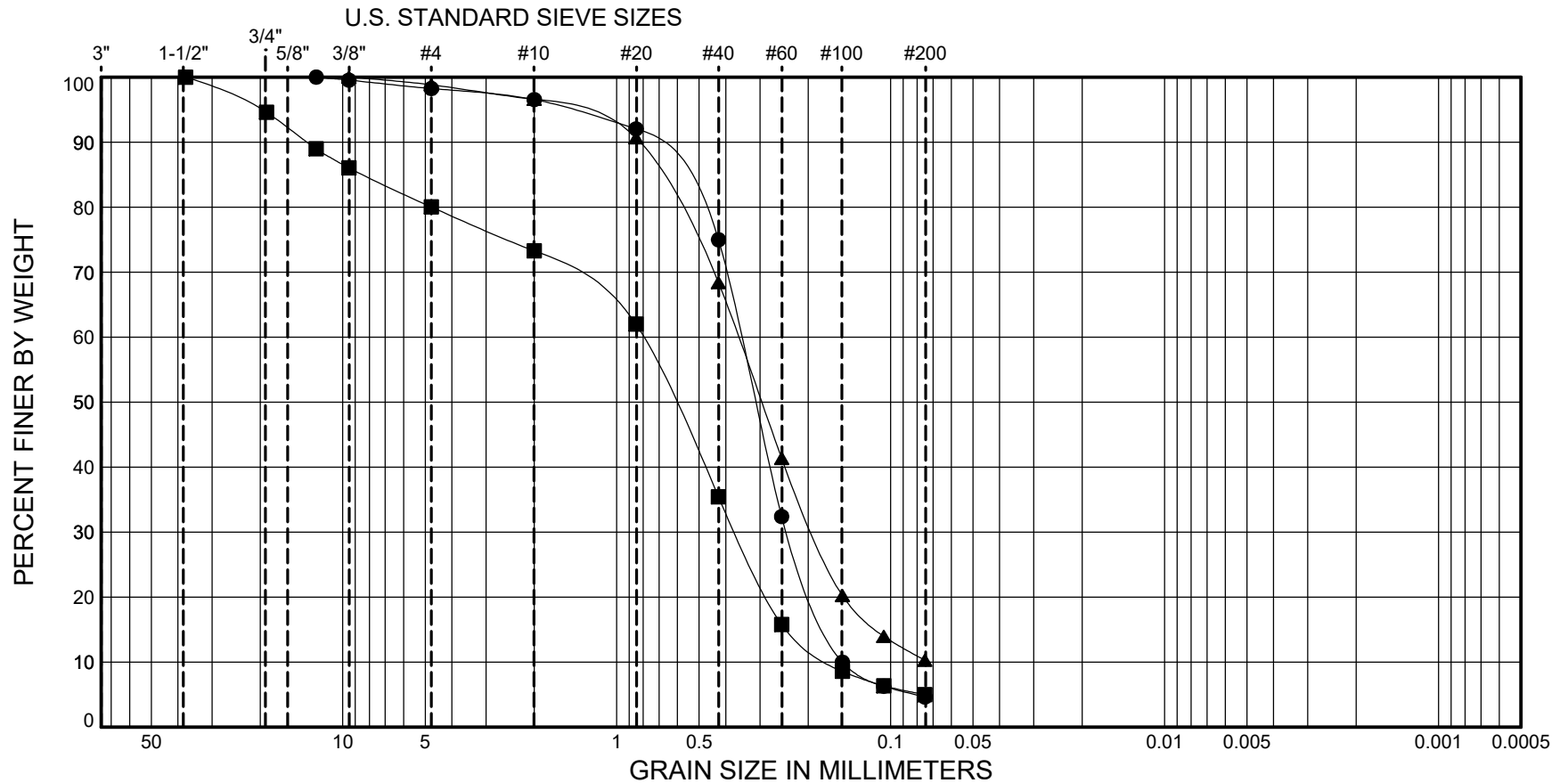
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report text, other graphs and tables, and the exploration logs.
2. The classification of soils in this table is based on ASTM D2487 and D2488 as applicable.



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SUMMARY OF
MATERIAL PROPERTIES

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE	DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-08 S-2	2.5 - 4.0	(SP) Olive-brown, poorly graded SAND					1.8	93.6	4.6
■	BH-09 S-3	5.0 - 6.5	(SP-SM) Olive-brown, poorly graded SAND with silt and gravel					20.0	75.0	5.0
▲	BH-10 S-1	0.1 - 1.6	(SP-SM) Yellowish-brown, poorly graded SAND with silt					1.2	88.5	10.3



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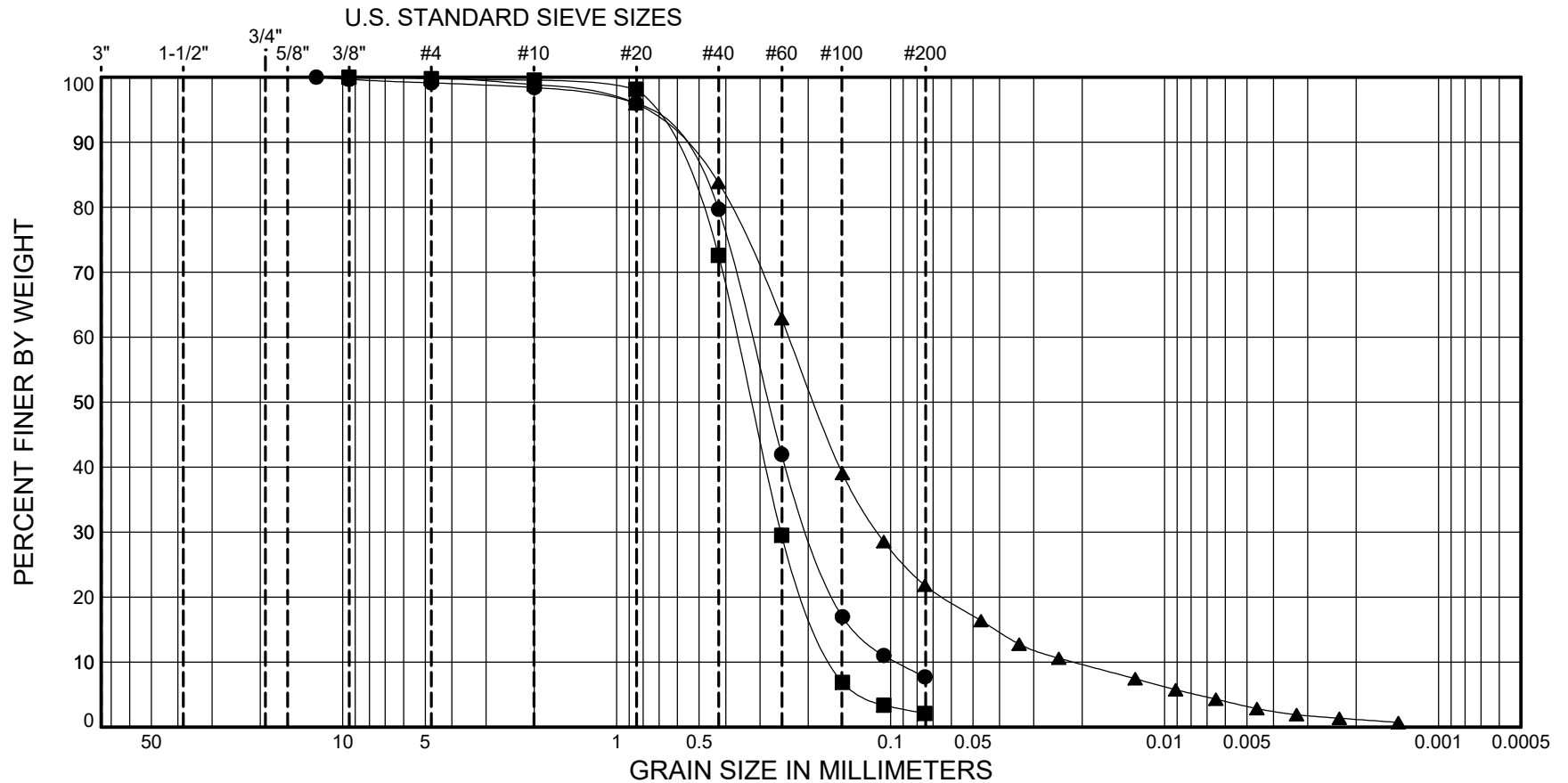
Tulalip Pavement Preservation
Geotechnical Investigation
81st Street NE, 29th and 30th Drive NE
Tulalip, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422

PROJECT NO.: 2021-036-21

FIGURE: B-3

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE	DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	BH-11 S-1	0.1 - 1.6	(SP-SM) Yellowish-brown, poorly graded SAND with silt					0.9	91.4	7.7
■	HH-1 S-2	2.5 - 5.0	(SP) Olive-brown, poorly graded SAND					0.2	97.6	2.1
▲	HH-2 S-1	1.0 - 3.0	(SM) Dark reddish-brown, silty SAND					0.0	78.2	21.8



GEO SCIENCES INC.

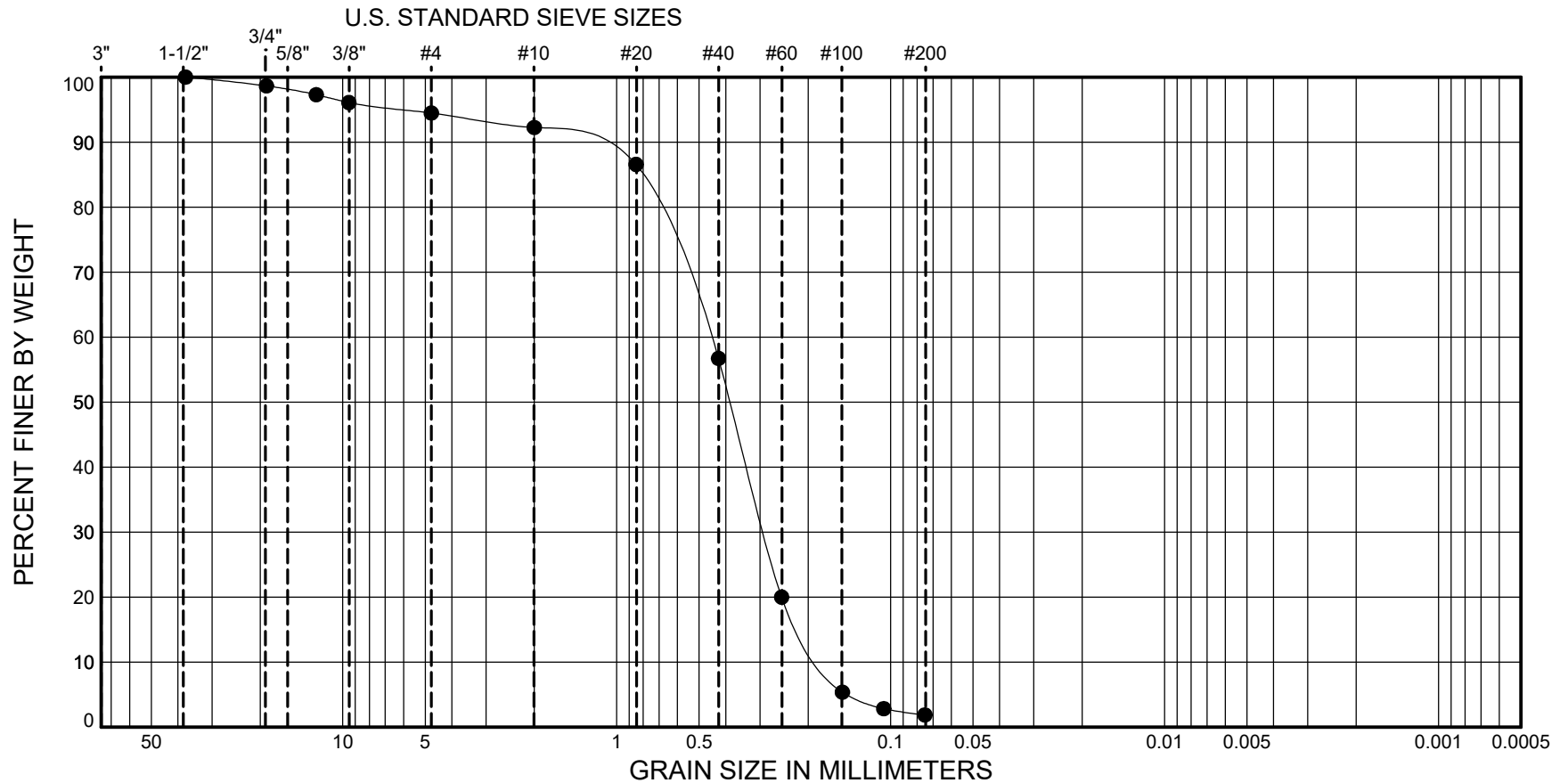
Tulalip Pavement Preservation
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PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422

PROJECT NO.: 2021-036-21

FIGURE: B-4

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE	DEPTH (ft)	CLASSIFICATION OF SOIL- ASTM D2487 Group Symbol and Name	% MC	LL	PL	PI	Gravel %	Sand %	Fines %
●	HH-3	S-2	(SP) Olive-brown, poorly graded SAND					5.5	92.6	1.9



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Tulalip Pavement Preservation
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Tulalip, Washington

PARTICLE-SIZE ANALYSIS
OF SOILS
METHOD ASTM D422

PROJECT NO.: 2021-036-21

FIGURE: B-5



October 25, 2021
HWA Project No. 2021-036-21

PARAMETRIX
719 2nd Ave, Suite 200
Seattle, WA 98104

Attn: Austin Fisher, P.E.

Subject: **Tulalip Road Preservation – Totem Beach Road Improvements
Geotechnical Investigation
Tulalip, Washington**

Mr. Fisher:

In accordance with your request, HWA GeoSciences Inc. (HWA) completed a field investigation consisting of performing pavement coring in 6 locations and logging the drilling of 3 boreholes along Totem Beach Road in the Tulalip Reservation in Tulalip, Washington. In addition, we performed laboratory testing on select samples retrieved from the boreholes. This report summarizes the results of our field investigation, laboratory testing, and provides recommendations for the design of seepage interceptor trench (French drain) and pavement reconstruction/rehabilitation.

PROJECT DESCRIPTION

The project alignment consists of approximately 2,550 feet of Totem Beach Road, between 76th Place NW and 70th Street NW (Alphonsus Bob Road). The alignment consists of one travel lane in each direction. The northernmost 1,530 feet of roadway, extending from 76th Place NW to the north entrance to the Senior Residential apartments, is surfaced with a thin layer of Hot Mix Asphalt (HMA) that is in poor condition and will be reconstructed. Improvements along this portion of the alignment will also include adding three new curb ramps, sidewalk replacement, three new catch basins, guardrail extension, stormwater treatment and new curb and gutter at selected locations. In addition, a French drain is proposed along the east side of the roadway within the middle of the reconstructed alignment to collect and convey groundwater seepage before it migrates under the roadway and softens the subgrade. An existing bioswale located at the northeast end of the proposed new French drain will be re-established.

The southern approximately 1,020 feet of the alignment, extending from the Senior Residential apartments to 70th Street NW, will be rehabilitated by grinding and construction of a new HMA overlay. New curb ramps are proposed at the intersection with 70th Street NW. The general

location of the project alignment is shown on Figure 1, Site and Vicinity Map. Figures 2A through 2C, Site and Exploration Plans, show the proposed improvements and locations of our explorations.

SITE CONDITIONS

Totem Beach Drive is a thoroughfare located adjacent to Tulalip Bay. The project alignment extends approximately 2,550 feet from 76th Place NW to 70th Street NW. Review of the USGS topographic map of the Tulalip Quadrangle indicates that the roadway traverses a shoreline facing slope, descending towards Tulalip bay from the north for approximately 0.3 miles, then roughly paralleling the slope, and gently ascending, for approximately 0.2 miles. Relief in the descending and ascending sections appear to be approximately 40 feet and 10 feet respectively. Currently the road has one travel lane in each direction. In general, the pavement along the northern 1,530 feet of the alignment is in poor condition exhibiting considerable amounts of high severity alligator cracking and rutting. We understand that seasonal groundwater seepage emanating along the uphill side of the roadway (east side) from approximate Sta 108+75 to 110+50 (See Figures 2A and 2B) has softened the road subgrade. The pavement along the southern 1,020 feet of the alignment exhibits minor longitudinal and transverse cracking, utility patching and surficial weathering.

SUBSURFACE INVESTIGATION

Geotechnical Borings

HWA GeoSciences Inc. (HWA) logged the drilling of three machine-drilled borings to assess subsurface conditions along the area of the proposed French drain. The borings, designated BH-1 through BH-3, were drilled on August 9, 2021, using a Bobcat mini track drill rig equipped with hollow stem augers, owned, and operated by Geologic Drill Partners Inc., of Bellevue, Washington, under subcontract to HWA. The borings were each drilled to depths of about 11.5 feet below ground surface (bgs). The locations of the borings were determined in the field by using a handheld GPS measuring device and are shown on Figures 2A and 2B.

In each boring, Standard Penetration Test (SPT) sampling was performed using a 2-inch outside diameter split-spoon sampler driven by a 140-pound automatic hammer. During the SPT, samples were obtained by driving the sampler 18 inches into the soil with the hammer free-falling 30 inches. The number of blows required for each 6 inches of penetration were recorded. The Standard Penetration Resistance (“N-value”) of the soil is calculated as the number of blows required for the final 12 inches of penetration. This resistance, or N-value, provides an indication of relative density of granular soils and the relative consistency of cohesive soils, both indicators of soil strength.

A geologist from HWA logged the explorations and recorded all pertinent information. Soil samples obtained from the boreholes were classified in the field and representative portions were sealed in plastic bags. Pertinent information including soil sample depths, stratigraphy, soil

engineering characteristics, and groundwater occurrence was recorded. These soil samples were then taken to our Bothell, Washington, laboratory for further examination and testing.

The stratigraphic contacts shown on the individual exploration logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific date and location reported and, therefore, are not necessarily representative of other locations and times. A legend of the terms and symbols used on the exploration logs is presented in Appendix A, Figure A-1. Summary logs of the borehole explorations are presented in Figures A-2 through A-4.

Pavement Cores

HWA GeoSciences Inc. (HWA) performed six, 4-inch diameter pavement cores, designated Core-1 through Core-6, along the project alignment to assess pavement layer thicknesses and shallow subgrade support conditions. Shallow subsurface explorations were performed in each pavement core hole using hand augers and hand digging tools. The coring and subsurface explorations were performed by geologists from HWA on August 10, 2021. All core holes were backfilled with compacted gravel and patched with Aquaphalt. A legend of the terms and symbols used on exploration logs is presented in Appendix A, Figure A-1. Photographic logs of the pavement cores are presented in Figures A-5 through A-10. Table 1 summarizes the pavement structures encountered in the pavement core explorations.

Table 1. Thickness of Pavement Layers

Designation	Location	HMA Thickness (in.)	Crushed Base Thickness (in.)	General Notes
Core-1	SB Lane - See Figure 2A	3.0	-	2 lifts of HMA, cracking extends through both lifts.
Core-2	NB Lane - See Figure 2A	2.25	-	2 lifts of HMA, cracking extends through both lifts.
Core-3	SB Lane -See Figure 2B	2.25	-	2 lifts of HMA, no cracking at this location.
Core-4	WB Lane - See Figure 2B	2.0	-	2 lifts of HMA, cracking extends through both lifts.
Core-5	WB Lane - See Figure 2C	8.0	-	4 lifts of HMA, no cracking at this location. Lifts 3 and 4 are not bonded.
Core-6	EB Lane - See Figure 2C	8.5	1.0	5 lifts of HMA, no cracking at this location. Lifts 4 and 5 are not bonded.

From Approximately Sta 100+00 to 115+30, the HMA pavement section is very thin (2 to 3 inches) and was placed over a thin section of fill or directly on native soils. No crushed base was encountered below the HMA. The HMA consisted of two lifts and cracking extended full-depth of the HMA where cores were performed over cracked pavement. Pavement distresses visible at the surface along this portion of the alignment consist of medium to high severity longitudinal cracking, alligator cracking, transverse cracking, rutting and potholing, particularly in the wheel paths. Some crack sealing and pothole patching has been performed in the past.

From approximately Sta 115+30 to 125+50, the HMA pavement section was considerably thicker (8 to 8.5 inches) and was comprised of 4 to 5 lifts of HMA. Crushed aggregate base was only encountered in Core-6 where it was about 1 inch thick.

LABORATORY TESTING

Representative soil samples obtained from the drilled boreholes were taken to the HWA geotechnical laboratory for examination and testing. Laboratory tests were conducted on selected soil samples to characterize engineering properties of the soils. Laboratory tests, as described in Appendix B, included moisture content determination, grain size distribution, and Atterberg Limits. The tests were conducted in general accordance with appropriate American Society of Testing and Materials (ASTM) standards and are discussed in further detail in Appendix B. The test results are also presented in Appendix B, and/or displayed on the exploration logs in Appendix A, as appropriate.

GEOLOGY

The project alignment is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic Mountain ranges, composed of a complex sequence of glacial and interglacial deposits.

Geologic information for the project site was obtained from the published geologic maps for the area; Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington (Minard, 1985) and the Surficial Geology, Selected Wells, and Hydrogeologic Units and Sections - Plate 1 from Water Resources of the Tulalip Indian Reservation and adjacent areas, Snohomish County, Washington 2001-2003 (Frans and Kresch, 2004). These maps indicate that the surficial geology within the vicinity of the project alignment consists of Vashon recessional outwash, a unit of mostly clean sand with some gravel, and some beds of silts and clay that was deposited by glacial meltwater behind the retreating Puget Lobe of the Cordilleran Ice Sheet during the latest glaciation. The geologic map depicting the project location is shown on Figure 3.

SUBSURFACE CONDITIONS

The subsurface conditions encountered vary by location and consist primarily of recessional outwash overlying advance outwash. All borings contained a 2 to 4-foot-thick silt (BH-1 and BH-2) or elastic silt (see BH-3) layer, within the upper five feet of each boring in the recessional outwash deposit.

In general, where encountered beneath pavement at shallow depths, the fine-grained silts soils are considered to be moisture sensitive and susceptible to frost heave.

The following units were observed in the explorations performed for this study. Each major soil unit is described below, with materials interpreted as being youngest in origin and nearest to the surface described first.

Topsoil: Topsoil was encountered at the surface at the locations BH-1 and BH-3, which were drilled in the grass area on the north side of the sidewalk. The topsoil layer was about 6 inches thick at both locations and consisted of medium dense, dark brown, silty sand that contained scattered organic matter and roots.

Fill: Fill soils were encountered immediately below topsoil at the location of BH-1, comprised of medium dense, orange brown, silty, gravelly sand. The fill was likely native soils that were re-graded during site development. Fill was also observed directly beneath the HMA at the locations of Core-1 and Core-4 through Core-6.

Vashon Recessional Outwash: Vashon recessional outwash was encountered near surface (below the topsoil or shallow layer of fill) in all three borings and extended to depths of 7.5 feet, 8 feet and 3.5 feet in borings BH-1 through BH-3, respectively. At the location of BH-1, the recessional outwash consisted of about 2 feet of very stiff silt over 3.5 feet of medium dense silty sand. At the location of BH-2, the recessional outwash consisted of about 3.5 feet of medium dense sand over 4 feet of medium stiff silt. At the location of BH-3, the recessional outwash consisted of about 3 feet of very stiff elastic silt over 1.5 feet of dense, silty sand.

The explorations at the pavement core locations all encountered recessional outwash, comprised of clean to silty sand and silt, below the HMA or thin layer of fill.

Recessional outwash was deposited by glacial meltwater during ice retreat away from the ice margin, consequently this unit is not glacially overridden and therefore, typically permeable and a good receptor for infiltration purposes. The silt encountered in our borings is not a good receptor for infiltration purposes and may serve as a confining layer over the underlying advance outwash or as a perching layer for shallow seepage.

Vashon Advance Outwash: Vashon advance outwash was encountered immediately below the recessional outwash in all three borings, extending to the terminal depths of all borings. The advance outwash encountered consisted of medium dense to very dense, poorly graded sand with gravel to silty sand with gravel, to silty gravel.

Advance outwash was deposited in front of an advancing glacier and subsequently overridden by glacial ice. This unit is typically over-consolidated due to being glacially overridden and not conducive to infiltration given its dense consistency. This unit serves as the regional aquifer.

GROUNDWATER CONDITIONS

Groundwater seepage was encountered during drilling in all three borings, which were drilled during dry summer conditions. In boring BH-1, groundwater was encountered during drilling at a depth of 4 feet but rose to a depth of 2 feet when the augers were removed. In boring BH-2, groundwater was encountered at a depth of 8 feet during drilling but rose to a depth of 2.3 feet

when the augers were removed. In boring BH-3, groundwater was encountered at a depth of 4 feet during drilling but rose to a depth of 2.5 feet when the augers were removed. The groundwater level rises observed appear to indicate artesian groundwater conditions are present, with the Vashon recessional silt acting as a confining layer. We anticipate that groundwater levels vary seasonally, with the highest water levels in the wet winter months.

CONCLUSIONS & RECOMMENDATIONS

The results of our field investigation and laboratory testing indicate that the northern section of the existing roadway pavement structure (approximately Sta 100+00 to 115+30) is very thin (2 to 3 inches of HMA) with no crushed base course below. The pavement throughout this area exhibits high severity alligator cracking. Pavement distresses in this area are likely related to shallow perched or springing groundwater conditions that facilitate softening of the roadway subgrade. The pavement in this section needs to be reconstructed with a sufficient thickness of HMA over crushed base course. We recommend that the shallow seepage is intercepted along the eastern (uphill) side of the road and conveyed to a suitable discharge point downhill.

Although, the SPT blow counts indicate the subgrade is stiff when undisturbed, the native fine-grained subgrade soils when exposed during reconstruction should be considered moisture sensitive and can lose strength and become unstable and subject to rutting and pumping under construction traffic loads. Given the moisture susceptibility of the silty subgrade soils, we recommend that reconstruction activities only occur during the dry summer months.

The remainder of the alignment (Sta 115+30 to 125+25) appears to be paved with about 8 to 8.5 inches of HMA placed either directly over fill or a thin veneer of crushed aggregate base. The road surface exhibits minor, widely spaced traverse cracking, trench patching and environmental deterioration. An overlay is planned for this roadway section. The use of engineered fibers (such as ACE Fibers) could be considered in the HMA overlay to prolong the pavement life and delay the onset of distress.

The following sections present our new drainage and pavement design recommendations.

INTERCEPTOR DRAIN

We recommend design provisions include an interceptor drain along the east side of the roadway as currently proposed from approximately Sta 108+75 to at least Sta 110+50. The drain should consist of 6-inch diameter, perforated pipe encapsulated in pervious gravel backfill, meeting the requirements for Gravel Backfill for Drains per Section 9-03.12(4) of the WSDOT *Standard Specifications* (WSDOT 2021). The gravel envelopment should be at least 6 inches thick in all directions around the pipe. The gravel backfill material should be encapsulated in a layer of non-woven geotextile meeting the requirements of WSDOT *Standard Specifications* Section 9-33.2(1) Table 1 for Moderate Survivability and Table 2 Class B. The pipe invert should be set at a depth of at least 2.5 feet and sloped to drain toward connection with an outlet for off-site

disposal at the lower end of the project. The trench should be backfilled with Gravel Borrow, meeting the requirements of Section 9-03.14(1) of the WSDOT *Standard Specifications*.

Seepage collection and conveyance should not be combined with local stormwater conveyance unless suitable catch basin connections eliminate the ability of the stormwater to surcharge the seepage collection system. We recommend that construction of the interceptor trench be conducted during the dry summer months. We recommend that construction of the interceptor trench and conveyance proceed uphill so that if seepage is encountered during construction the conveyance and disposal system or suitable temporary outlet is already in place.

NEW HMA PAVEMENT DESIGN

Pavement Design

The existing Hot Mix Asphalt (HMA) section from approximately 76th Place NW south and east to entrance to the Senior Apartments (Sta 115+30) is very thin with no crushed base course and exhibits high severity distresses. We understand that the pavement in this section will be reconstructed. From about Sta 115+30 to the south/east end of the alignment, our pavement cores encountered about 8 to 8.5 inches of HMA with only minor distresses. We understand that this portion of the alignment will be rehabilitated by grinding and overlay. The following sections provide our pavement design recommendations.

Design Traffic

Current design traffic parameters were provided by Parametrix, consisting of three days of traffic counts (7/19/16 through 7/21/16) for the northbound (NB) and southbound (SB) directions at three locations along the alignment. We used the highest 24-hour count for the NB traffic for design, and ADT of 1,292 vehicles. We were also provided an annual traffic volume growth rate of 2% and 4% heavy truck traffic. Assuming 2 Equivalent Single Axle Loads (ESALs) per heavy truck and 0.008 ESALs for all other vehicles, we calculate a 20-year design life ESAL value of 1,005,000, which was used for design.

The pavement recommendations presented in this report are based on these traffic calculations. If additional traffic count information is obtained that varies appreciably from these values, the recommendations given in this report should be reviewed and revised as necessary.

New HMA Pavement Design

Table 2 provides our HMA design recommendations, assuming the traffic loading input described above. This pavement design is based on the design method given in the 1993 AASHTO Design Guide (AASHTO, 1993) using the following parameters:

- Reliability = 90%
- Initial Serviceability = 4.5

- Terminal Serviceability = 3.0
- Overall Standard Deviation = 0.5
- Subgrade Resilient Modulus = 7.5 ksi

These values result in a required AASHTO Structural Number (SN) of 3.80.

Table 2. Structure Requirements for New HMA Pavement – 20-Year Design Life

Material Description	Minimum Layer Thickness (inches)	WSDOT Standard Specification
HMA	7	5-04
CSBC	6	9-03.9(3)

HMA: Hot Mix Asphalt

CSBC: Crushed Surfacing Base Course

We recommend that the asphaltic layers consist of HMA Class ½-inch. Recommendations are presented below for subgrade preparation and structural fill placement and compaction for pavement reconstruction. The use of engineered fibers (such as ACE Fibers) could be considered in the HMA overlay to prolong the pavement life and delay the onset of distress.

PAVEMENT OVERLAY AREA DESIGN

We understand that an HMA overlay is planned for the portion of the alignment east of the Senior Apartment Center (approximate Sta 115+30) to the project terminus at the intersection of Totem Beach Road and 70th Street NW (approximate Sta 125+50).

For areas where pavement repairs are not required we recommend that 3 inches be ground from the existing surface and a new 3-inch thick HMA overlay be constructed. We did not identify any repair areas during our walkthrough or pavement coring; however, we recommend that a representative from HWA evaluate the HMA surface after grinding to determine if any areas require repair.

HMA Design Considerations

The following design considerations should be noted and implemented:

- The longitudinal joints in the HMA wearing course should coincide with a lane line or an edge line.
- The pavement will likely require a functional overlay after about 10 to 12 years because of non-structural associated distress caused by environmental factors such as degradation of the asphalt surface and rutting.
- HMA pavements are susceptible to shoving and rutting from heavy vehicles, such as buses and heavy delivery trucks, particularly at intersections. In these areas, more frequent maintenance and even premature reconstruction of the pavement may be required.

HMA Binder Selection

The selection of the optimum asphalt binder type for the prevailing climate is critical to ensure long-term pavement performance. Use of the wrong binder can result in low temperature cracking or permanent deformation at high temperatures.

Based on the climate in the project vicinity, we recommend Superpave Performance Grade binder PG 58H-22 be used for pavement reconstruction and pavement overlays in order to provide greater resistance to potential pavement distresses.

Placement of HMA

Placement of HMA should be in accordance with Section 5-04 of the WSDOT Standard Specifications (WSDOT, 2021). Particular attention should be paid to the following:

- HMA should not be placed until the engineer has accepted the previously constructed pavement layers.
- HMA should not be placed on any frozen or wet surface.
- HMA should not be placed when precipitation is anticipated before the pavement can be compacted, or before any other weather conditions which could prevent proper handling and compaction of HMA.
- HMA should not be placed when the average surface temperatures are less than 45° F.
- HMA temperature behind the paver should be in excess of 240° F. Compaction should be completed before the mix temperature drops below 180° F. Comprehensive temperature records should be kept during the HMA placement.
- Sufficient tack coat must be applied uniformly and allowed to break and set before placing HMA above an existing HMA layer in order to create a strong bond between layers. The surface of the pavement should be thoroughly cleaned prior to tack coat application. Improper tack coat application can cause unbonded layers and will lead to premature pavement distress/failure.
- For cold joints, tack coat should be applied to the edge to be joined and the paver screed should be set to overlap the first mat by 1 to 2 inches.

Drainage

It is essential to the satisfactory performance of the roadway that good drainage is provided to prevent water ponding on or alongside, or accumulating beneath, the pavement. Water ponding can cause saturation of the pavement and subgrade layers and lead to premature failure. The surface of the pavement should be sloped to convey water from the pavement to appropriate drainage facilities.

EARTHWORK

Subgrade Preparation

Subgrade preparation for the proposed improvements should begin with the removal of all existing topsoil, organic-rich soils, debris and vegetation. The soils should be excavated to the design elevation and thoroughly compacted. In areas of pavement reconstruction, excavation should extend to design subgrade elevation (below new HMA and crushed base course thickness).

The exposed subgrade soils should be evaluated to assess their suitability for support of the improvements. Areas accessible to fully-loaded dump trucks, or similar heavy wheeled equipment should be proof-rolled prior to placement of structural fill. Any areas exhibiting pumping or heaving should be delineated and over-excavated to reach competent soils, as determined by the geotechnical engineer. Areas inaccessible to large equipment should be evaluated by the geotechnical engineer using a T-handle probe, or other suitable method. Soils found to be soft/loose, or unsuitable for support of the proposed improvements, should be over-excavated to reach competent soils. Backfill of any over-excavated areas should consist of structural fill, placed and compacted as described below.

Structural Fill Materials and Compaction

Any material used to support the pavement should consist of Crushed Surfacing Base Course (CSBC) as specified in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2021). Structural fill used to raise site grades, or backfill utility trench excavations, should consist of granular materials such as Gravel Borrow, meeting the requirements of Section 9-03.14(1) of the WSDOT *Standard Specifications* (WSDOT, 2021). Based on our subsurface explorations, we do not anticipate that native soils can be re-used as structural fill.

Structural fill soils should be moisture conditioned, placed in loose horizontal lifts less than 8-inches thick, and compacted to at least 95% of the maximum dry density (MDD) as determined using test method ASTM D1557 (modified Proctor). Achievement of proper density of a compacted fill depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted and soil moisture-density properties. In areas where limited space restricts the use of heavy equipment, smaller equipment can be used, but the soil must be placed in thin enough layers to achieve the required relative compaction. Generally, loosely compacted soils result from poor construction technique and/or improper moisture content. Soils with high fines contents are particularly susceptible to becoming too wet, and coarse-grained materials easily become too dry for proper compaction.

Temporary Excavations

Any temporary excavations deeper than 4 feet should be sloped or shored in accordance with Part N of the Washington Administrative Code (WAC) 296-155 or shored. The near-surface soils classify as Type C soils. Temporary excavations in Type C soils may be no steeper than 1.5H:1V to meet safety requirements for worker access during construction. The recommended maximum allowable temporary slope cut inclinations are applicable to temporary excavations above the water table only. Flatter slopes may be required where groundwater seepage is present.

The contractor should monitor the stability of the temporary cut slopes and adjust the construction schedule and slope inclination accordingly. The contractor should be responsible for control of ground and surface water and should employ sloping, slope protection, ditching, sumps, dewatering, and other measures as necessary to prevent sloughing of soils.

Wet Weather Earthwork

Some of the soils encountered contained a high fines content and will likely be difficult to place/compact or traverse with construction equipment during periods of wet weather. General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soil should be followed promptly by the placement of concrete or placement and compaction of structural fill material. The size and type of construction equipment used may need to be limited to prevent soil disturbance.
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water.
- The ground surface within the construction area should be sealed by a smooth drum roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture infiltration.
- Excavation and placement of fill material should be monitored to determine that the work is being accomplished in accordance with the project specifications and that the weather conditions do not adversely impact the quality of work.

Utility Pipe Bedding and Backfill

General recommendations relative to pipe bedding and utility trench backfill are presented below:

- Pipe bedding material, placement, compaction and shaping should be in accordance with the project specifications and the pipe manufacturer's recommendations. As a minimum, the

pipe bedding should meet the gradation requirements for Gravel Backfill for Pipe Zone Bedding, Section 9.03.12(3) of the WSDOT *Standard Specifications* (WSDOT, 2021).

- Pipe bedding materials should be placed on relatively undisturbed native soils, or compacted fill soils. If the native subgrade soils are disturbed, the disturbed material should be removed and replaced with compacted bedding material.
- Although unlikely, the possibility may arise that in areas the trench bottom may encounter very soft or organic-rich subgrade soils, and it will be necessary to over-excavate the unsuitable material and backfill with pipe bedding material. We recommend that crushed rock meeting the requirements for Crushed Surfacing Top Course, as described in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2021), be used to backfill the over-excavated portions of the trench bottom.
- Pipe bedding should provide a firm, uniform, cradle for support of the pipe. We recommend that a minimum 4-inch thickness of bedding material beneath the pipe be provided. Greater thicknesses may be necessary to prevent loosening and softening of the natural soils during pipe placement.
- Pipe bedding material and/or backfill around the pipe should be placed in layers and tamped to obtain complete contact with the pipe.
- During placement of the initial lifts, the trench backfill material should not be bulldozed into the trench or dropped directly on the pipe. Furthermore, heavy equipment should not be permitted to operate directly over the pipe until a minimum of 2 feet of backfill has been placed. Trench backfill should be placed in 8-inch (maximum) thick lifts and compacted using mechanical equipment to at least 95% of its maximum dry density, as determined by testing in general accordance with ASTM D1557 (modified Proctor).

CONDITIONS AND LIMITATIONS

We have prepared this report for Parametrix and the Tulalip Tribe for use in design of this project. The conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances.

Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work 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.



We appreciate this opportunity to provide geotechnical and pavement engineering services on this project. If you have any questions or if we may be of further assistance, please contact the undersigned at (425) 774-0106.

Sincerely,

HWA GEOSCIENCES INC.

Steven E. Greene
Principal Engineering Geologist

Bryan K. Hawkins, P.E.
Senior Geotechnical Engineer

ATTACHMENTS:

- | | |
|------------|---|
| Figure 1 | Vicinity Map |
| Figure 2 | Site and Exploration Plan |
| Figure 3 | Geologic Map |
| Figure 4 | Generalized Geologic Cross Section A – A' |
| Appendix A | Subsurface Exploration |
| Appendix B | Laboratory Test Results |

REFERENCES:

Frans, L.M., and Kresch, D.L., 2004, *Water resources of the Tulalip Indian Reservation and adjacent area, Snohomish County, Washington, 2001–03*: U.S. Geological Survey Scientific Investigations Report 2004–5166, 86 p.

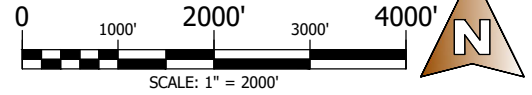
Minard, J.P., 1985, *Geologic Map of the Tulalip Quadrangle, Island and Snohomish Counties, Washington*, U S Geological Survey Misc. Field Studies Map MF-1744.

WSDOT, 2021, *Standard Specifications for Road, Bridge, and Municipal Construction*.

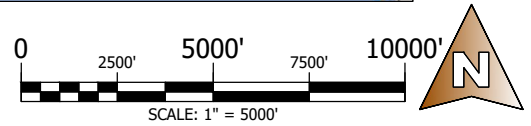
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SITE MAP



VICINITY MAP



SITE AND VICINITY MAP

**TULALIP ROAD PRESERVATION
TOTEM BEACH ROAD
TULALIP, WASHINGTON**

FIGURE NO.:

1

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PROJECT #
2021-036-21

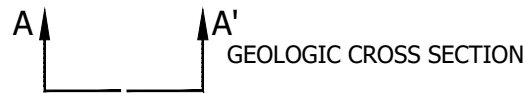




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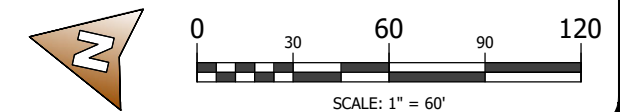
EXPLORATION LEGEND

- BH-3 BOREHOLE DESIGNATION AND APPROXIMATE LOCATION
- C-1 PAVEMENT CORE DESIGNATION AND APPROXIMATE LOCATION



TOTEM BEACH ROAD

Scale: 1" = 60'-0"



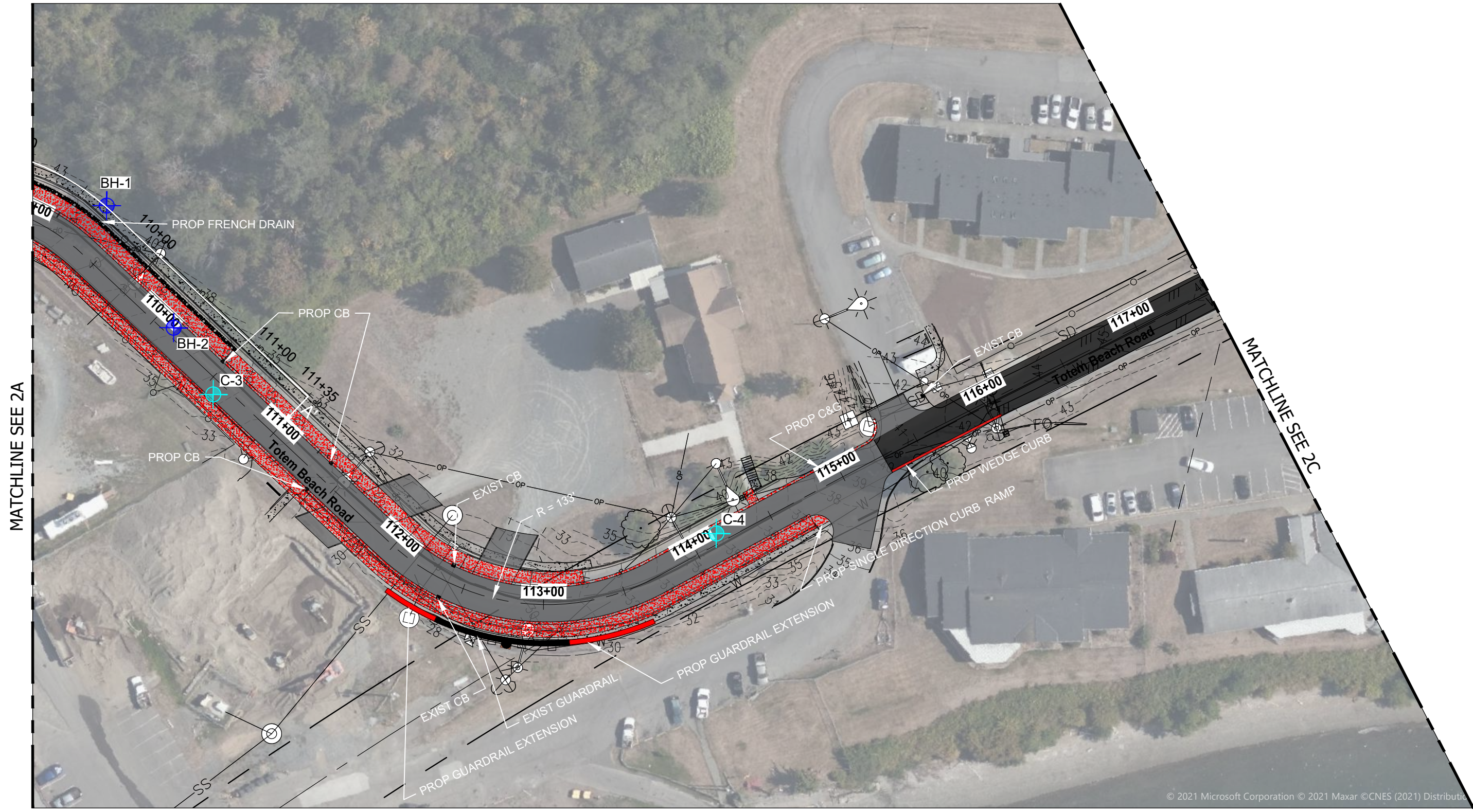
TULALIP ROAD PRESERVATION
TOTEM BEACH ROAD
TULALIP, WASHINGTON

SITE &
EXPLORATION PLAN

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CHECK BY: SEG	PROJECT NO.: 2021-036-21

BASE MAP PROVIDED BY: BING AND PARAMETRIX 06.22.2021

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TOTEM BEACH ROAD
Scale: 1" = 60'-0"

EXPLORATION LEGEND

- BH-1 BOREHOLE DESIGNATION AND APPROXIMATE LOCATION
- C-3 PAVEMENT CORE DESIGNATION AND APPROXIMATE LOCATION
- A** **A'**
GEOLOGIC CROSS SECTION



TULALIP ROAD PRESERVATION
TOTEM BEACH ROAD
TULALIP, WASHINGTON

SITE &
EXPLORATION PLAN

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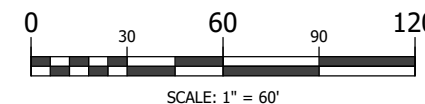
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TOTEM BEACH ROAD
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EXPLORATION LEGEND

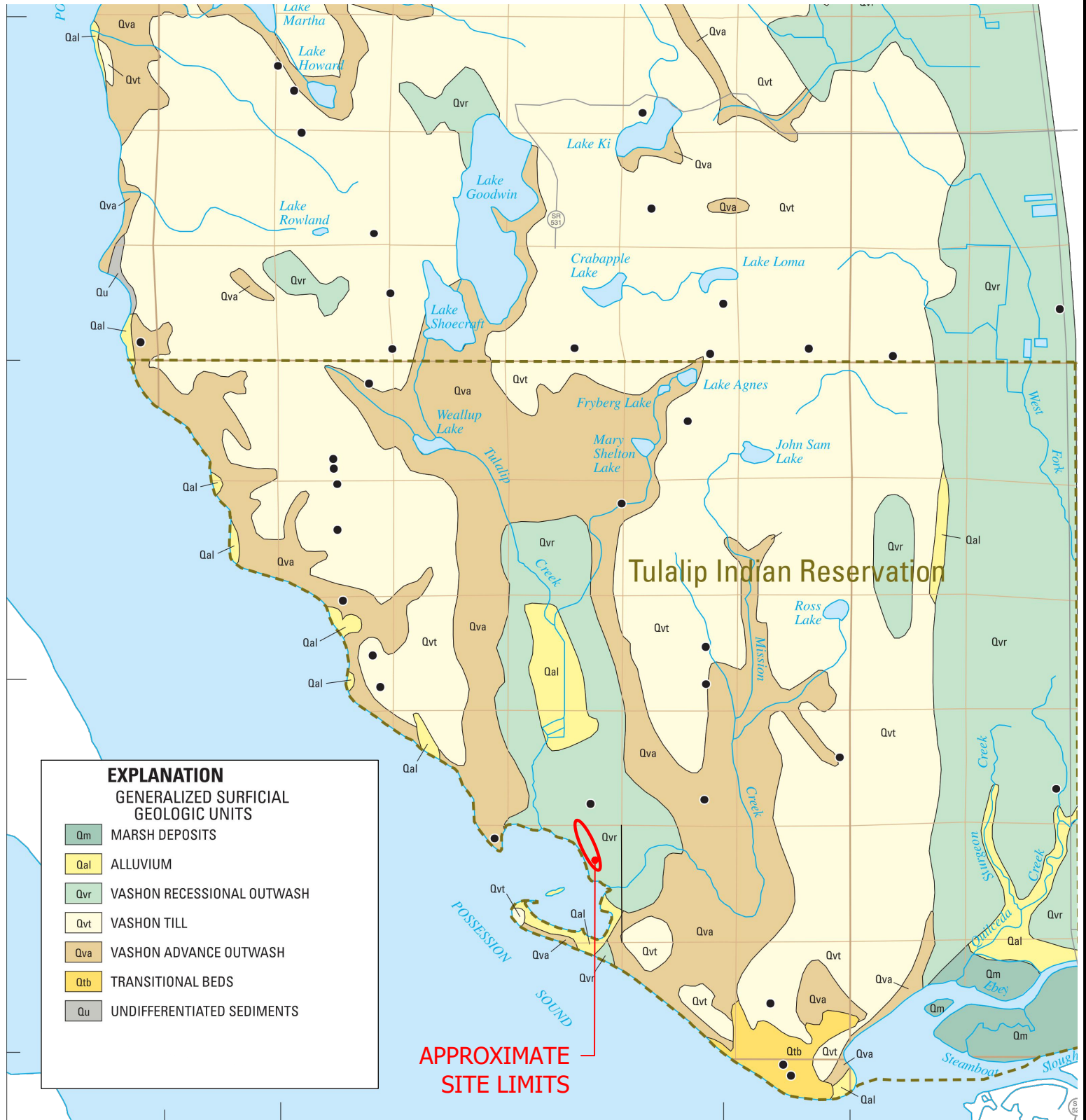
C-5 PAVEMENT CORE DESIGNATION AND APPROXIMATE LOCATION



TULALIP ROAD PRESERVATION
TOTEM BEACH ROAD
TULALIP, WASHINGTON

SITE &
EXPLORATION PLAN

DRAWN BY: CF	FIGURE NO.: 2C
CHECK BY: SEG	PROJECT NO.: 2021-036-21



EXPLANATION

GENERALIZED SURFICIAL GEOLOGIC UNITS

- Qm MARSH DEPOSITS
- Qal ALLUVIUM
- Qvr VASHON RECESSONAL OUTWASH
- Qvt VASHON TILL
- Qva VASHON ADVANCE OUTWASH
- Qtb TRANSITIONAL BEDS
- Qu UNDIFFERENTIATED SEDIMENTS

APPROXIMATE SITE LIMITS

BASE MAP PROVIDED BY: SCIENTIFIC INVESTIGATIONS REPORT 2004-5166, SURFICIAL GEOLOGY, SELECTED WELLS, AND HYDROGEOLOGIC UNITS AND SECTIONS - PLATE 1, FRANS, L.M., AND KRESCH D.L., 2004, WATER RESOURCES OF THE TULALIP INDIAN RESERVATION AND ADJACENT AREA, SNOHOMISH COUNTY, WASHINGTON, 2001-03

NOT TO SCALE



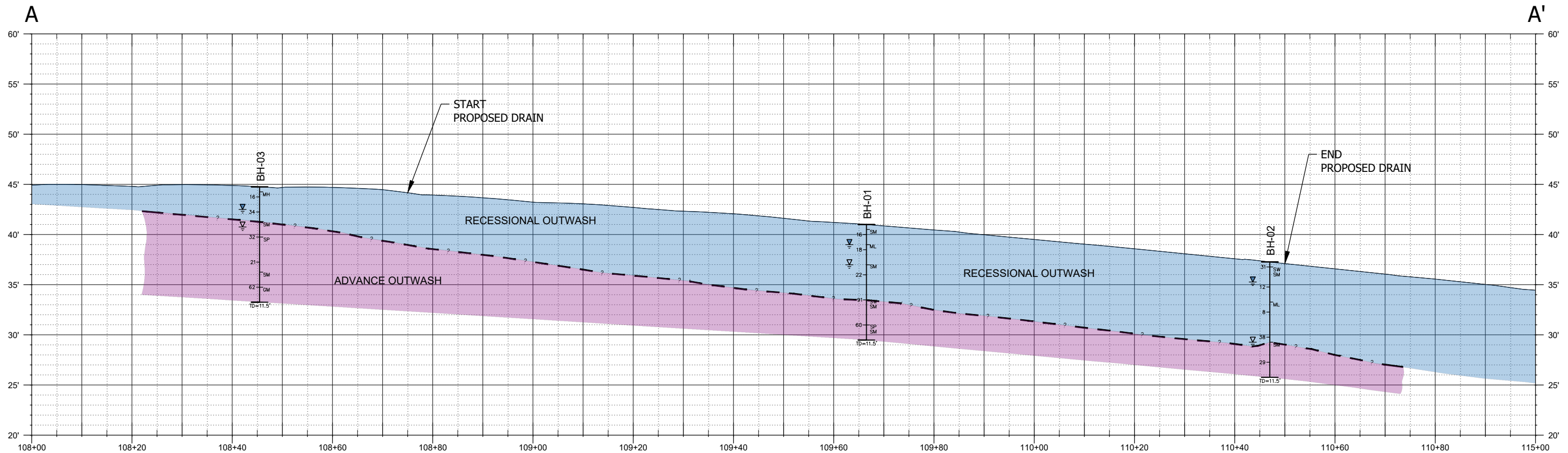
GEOLOGIC MAP

**TULALIP ROAD PRESERVATION
TOTEM BEACH ROAD
TULALIP, WASHINGTON**

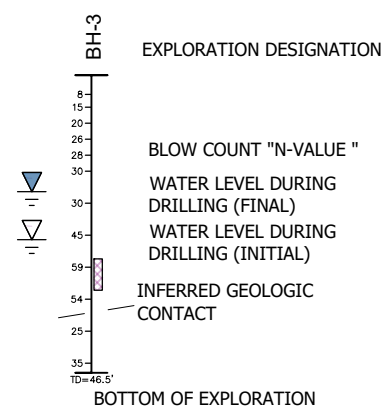
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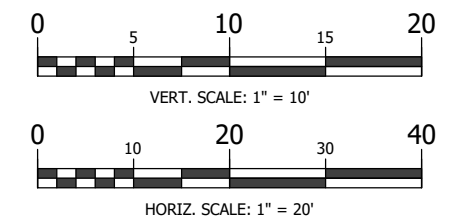
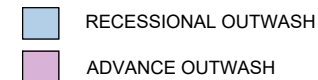
PROJECT #
2021-036-21



BORING LEGEND



SOILS LEGEND



NOTE: THE SUBSURFACE CONDITIONS SHOWN ARE BASED ON WIDELY SPACED BORINGS AND SHOULD BE CONSIDERED APPROXIMATE. FURTHERMORE, THE CONTACT LINES SHOWN BETWEEN UNITS ARE INTERPRETIVE IN NATURE AND MAY VARY Laterally OR VERTICALLY OVER RELATIVELY SHORT DISTANCES ON SITE. ELEVATIONS OF BORINGS ARE APPROXIMATE.



TULALIP ROAD PRESERVATION
TOTEM BEACH ROAD
TULALIP, WASHINGTON

GENERALIZED
GEOLOGIC CROSS
SECTION

DRAWN BY: CF	FIGURE NO.: 4
CHECK BY: MAB/SEG	PROJECT NO.: 2021-036-21

APPENDIX A

SUBSURFACE EXPLORATION

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

TEST SYMBOLS

- %F Percent Fines
- AL Atterberg Limits: PL = Plastic Limit, LL = Liquid Limit
- CBR California Bearing Ratio
- CN Consolidation
- DD Dry Density (pcf)
- DS Direct Shear
- GS Grain Size Distribution
- K Permeability
- MD Moisture/Density Relationship (Proctor)
- MR Resilient Modulus
- OC Organic Content
- pH pH of Soils
- PID Photoionization Device Reading
- PP Pocket Penetrometer (Approx. Comp. Strength, tsf)
- Res. Resistivity
- SG Specific Gravity
- CD Consolidated Drained Triaxial
- CU Consolidated Undrained Triaxial
- UU Unconsolidated Undrained Triaxial
- TV Torvane (Approx. Shear Strength, tsf)
- UC Unconfined Compression

USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP DESCRIPTIONS	
Coarse Grained Soils	Gravel and Gravelly Soils	Clean Gravel (little or no fines)		GW Well-graded GRAVEL
		Gravel with Fines (appreciable amount of fines)		GP Poorly-graded GRAVEL
	Sand and Sandy Soils	Clean Sand (little or no fines)		GM Silty GRAVEL
		Sand with Fines (appreciable amount of fines)		GC Clayey GRAVEL
More than 50% Retained on No. 200 Sieve Size	50% or More of Coarse Fraction Retained on No. 4 Sieve	Clean Sand (little or no fines)		SW Well-graded SAND
		Sand with Fines (appreciable amount of fines)		SP Poorly-graded SAND
	Silt and Clay	Liquid Limit Less than 50%		SM Silty SAND
				SC Clayey SAND
		Liquid Limit 50% or More		ML SILT
				CL Lean CLAY
50% or More Passing No. 200 Sieve Size	Silt and Clay		OL Organic SILT/Organic CLAY	
			MH Elastic SILT	
		CH Fat CLAY		
Highly Organic Soils				OH Organic SILT/Organic CLAY
				PT PEAT

SAMPLE TYPE SYMBOLS

- 2.0" OD Split Spoon (SPT) (140 lb. hammer with 30 in. drop)
- Shelby Tube
- Non-standard Penetration Test (3.0" OD Split Spoon with Brass Rings)
- Small Bag Sample
- Large Bag (Bulk) Sample
- Core Run
- 3-1/4" OD Split Spoon

GROUNDWATER SYMBOLS

- Groundwater Level (measured at time of drilling)
- Groundwater Level (measured in well or open hole after water level stabilized)

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS
< 5%	Clean
5 - 12%	Slightly (Clayey, Silty, Sandy)
12 - 30%	Clayey, Silty, Sandy, Gravelly
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)
Components are arranged in order of increasing quantities.	

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
MOIST	Damp but no visible water.
WET	Visible free water, usually soil is below water table.



Tulip Pavement Preservation
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Totem Beach Road
Tulailp, Washington

LEGEND OF TERMS AND SYMBOLS USED ON EXPLORATION LOGS

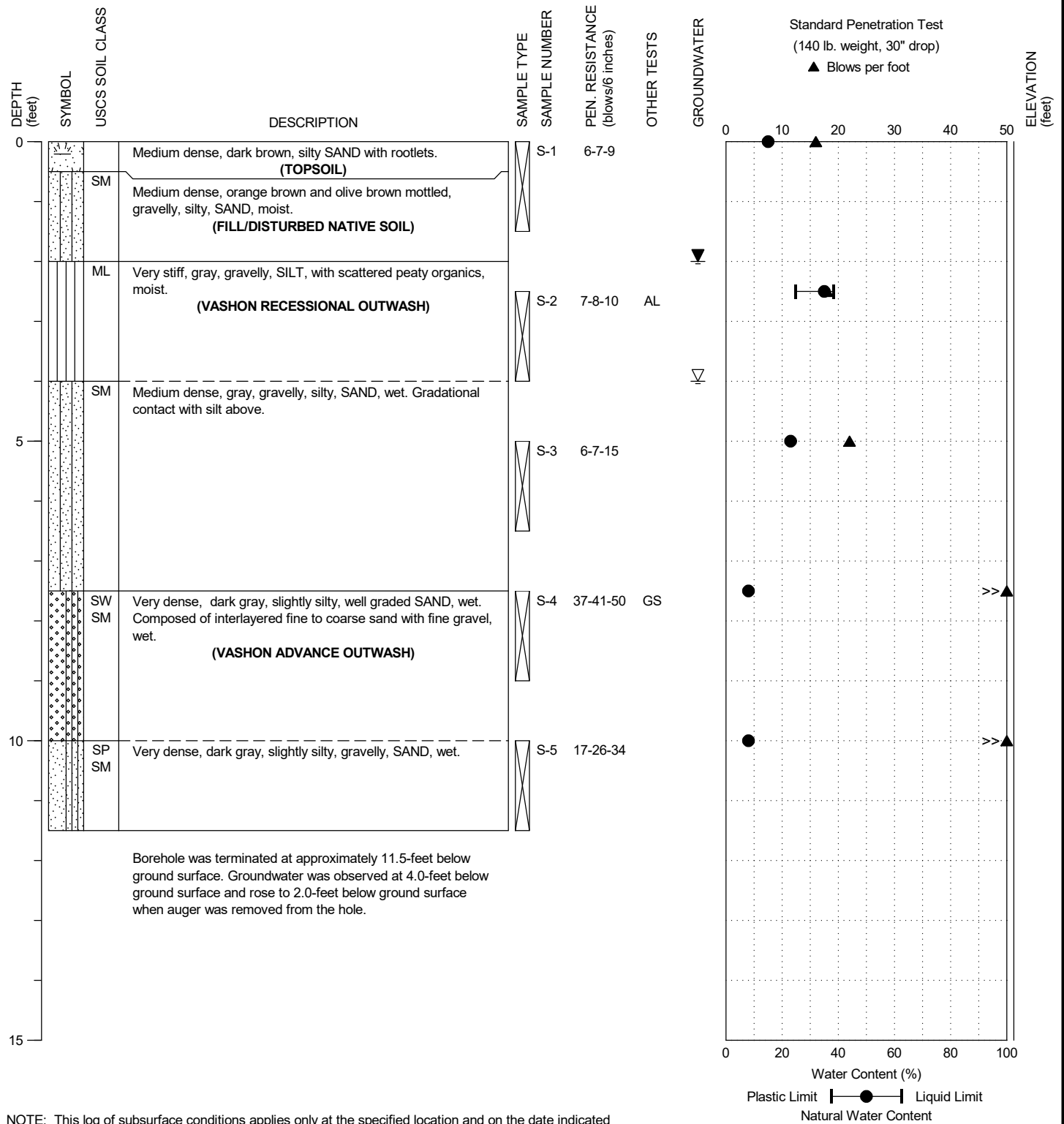
PROJECT NO.: 2021-036-21

FIGURE:

A-1

DRILLING COMPANY: Geologic Drill, Inc.
 DRILLING METHOD: HSA, Bobcat Mini Track Rig
 SAMPLING METHOD: SPT w/Rope & Cathead
 LOCATION: See Figure 2B

DATE STARTED: 8/9/2021
 DATE COMPLETED: 8/9/2021
 LOGGED BY: S. Pemble



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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BORING:
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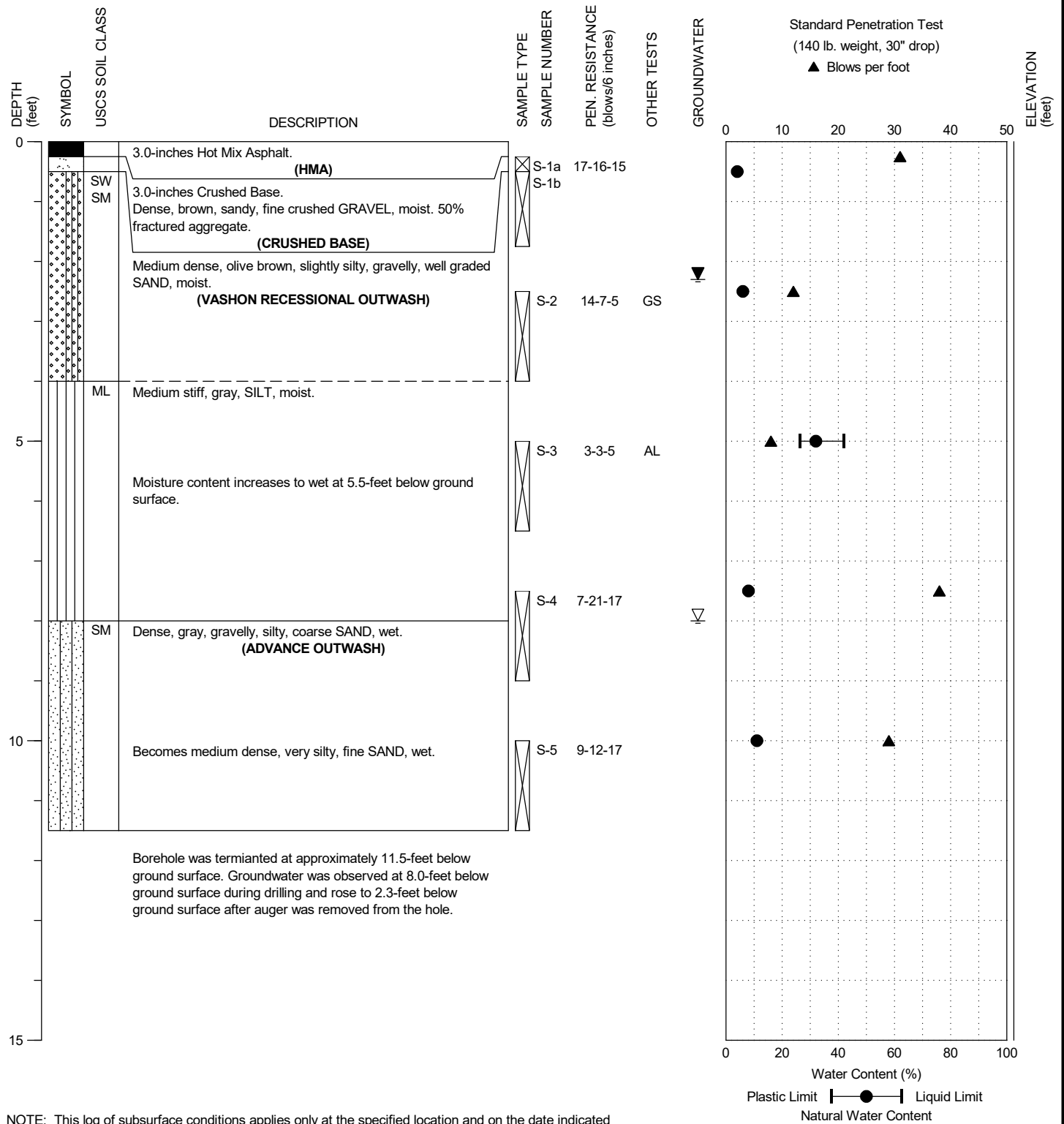
PROJECT NO.: 2021-036-21

FIGURE:

A-2

DRILLING COMPANY: Geologic Drill, Inc.
 DRILLING METHOD: HSA, Bobcat Mini Track Rig
 SAMPLING METHOD: SPT w/Rope & Cathead
 LOCATION: See Figure 2B

DATE STARTED: 8/9/2021
 DATE COMPLETED: 8/9/2021
 LOGGED BY: S. Pemble



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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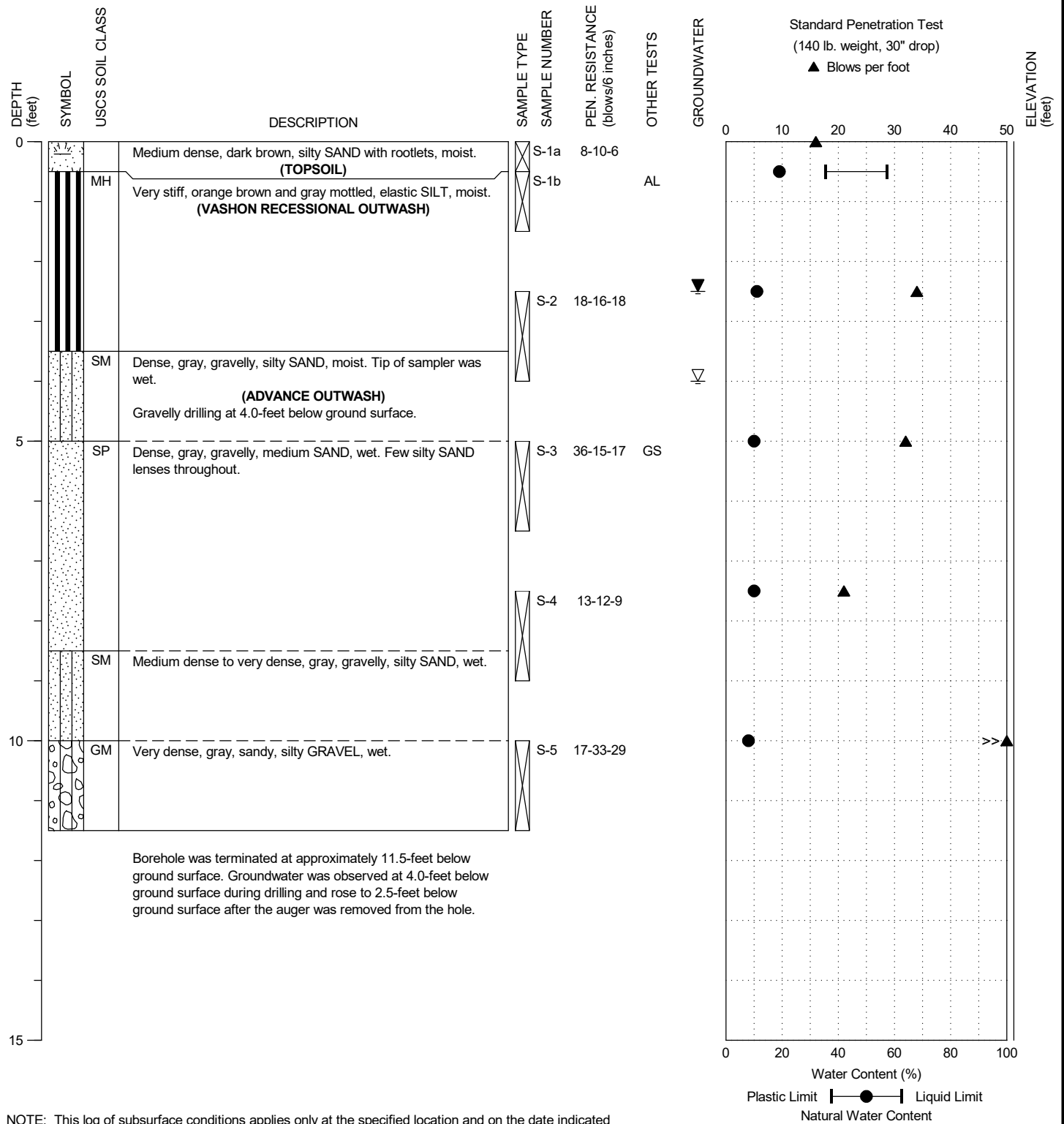
PROJECT NO.: 2021-036-21

FIGURE:

A-3

DRILLING COMPANY: Geologic Drill, Inc.
 DRILLING METHOD: HSA, Bobcat Mini Track Rig
 SAMPLING METHOD: SPT w/Rope & Cathead
 LOCATION: See Figure 2A

DATE STARTED: 8/9/2021
 DATE COMPLETED: 8/9/2021
 LOGGED BY: S. Pemble



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.



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 Geotechnical Investigation
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 Tulalip, Washington

BORING:
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PROJECT NO.: 2021-036-21

FIGURE:

A-4

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
 STREET: Totem Beach Road, Southbound, 8' from curb

LOCATION: See Figure 2A
 DATE COMPLETED: 8/10/21
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			3.0-inches Hot Mix Asphalt. 2 Lifts: 1.5" x 1.5" Cored on high severity alligator cracking. Cracked through full depth. Lifts are bonded. (HMA)				
	GP		Dense, brown, sandy GRAVEL, moist. (FILL)				
	ML		Stiff, gray with brown mottling, SILT, moist. (VASHON RECESSIONAL OUTWASH)				
			Becomes silty and sandy.				
3			Corehole was terminated at 2.5-feet below ground surface. No groundwater seepage was observed during the exploration.				

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
 STREET: Totem Beach Road, Northbound, 6.5' from curb

LOCATION: See Figure 2A
 DATE COMPLETED: 8/10/21
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			2.25-inches Hot Mix Asphalt. 2 Lifts: 1.0" x 1.25"				
	SP		Cored on high severity alligator and longitudinal cracking. Cracked through full depth. Lifts are bonded. (HMA)				
			Dense, brown, SAND, with gravel and cobbles, moist. (VASHON RECESSIONAL OUTWASH)				
			Corehole was terminated at 1.0-feet below ground surface. No groundwater seepage was observed during the exploration.				
3							

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
 STREET: Totem Beach Road, Southbound, 5' from curb

LOCATION: See Figure 2B
 DATE COMPLETED: 8/10/21
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT (%)	OTHER TESTS
0			2.25-inches Hot Mix Asphalt. 2 Lifts: 1.125" x 1.125" No cracking at core location. Lifts are bonded. (HMA)				
	SP SM		Dense, brown, SAND, with silt and gravel, moist. (VASHON RECESSONAL OUTWASH)				
3			Corehole was terminated at 2.0-feet below ground surface. No groundwater seepage was observed during the exploration.				

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
 STREET: Totem Beach Road, Westbound, 10' from edge of pavement

LOCATION: See Figure 2B
 DATE COMPLETED: 8/10/21
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			2.0-inches Hot Mix Asphalt. 2 Lifts: 1.125" x 0.875" Cored on high severity alligator cracking. Cracked through full depth. Lifts are bonded. (HMA)				
	GP		Dense, brown, sandy, fine GRAVEL, moist. (FILL)				
	SM		Dense, brown, silty SAND, with gravel, moist. (VASHON RECESSIONAL OUTWASH) Becomes medium dense to dense and gray. Becomes dense and brown.				
3			Corehole was terminated at 1.6-feet below ground surface. No groundwater seepage was observed during the exploration.				

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
 STREET: Totem Beach Road, Westbound, 4.5' from edge of pavement

LOCATION: See Figure 2C
 DATE COMPLETED: 8/10/21
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			8.0-inches Hot Mix Asphalt. 4 Lifts: 1.75" x 1.5" x 2.0" x 2.75" No cracking at core location. Third and fourth lifts are unbonded. (HMA)				
		SM	Medium dense, brown, silty SAND, with gravel and slightly plastic fines, moist. (FILL) Very dense, gray, silty SAND, with gravel, moist.				
3			Corehole was terminated at 1.1-feet below ground surface. No groundwater seepage was observed during the exploration.				

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

EXCAVATION COMPANY: HWA GeoSciences Inc.
 EXCAVATING EQUIPMENT: 4-inch Diameter Core Barrel
 STREET: Totem Beach Road, Eastbound, 7.6' from edge of pavement

LOCATION: See Figure 2C
 DATE COMPLETED: 8/10/21
 LOGGED BY: S. Pemble

DEPTH (feet)	SYMBOL	USCS SOIL CLASS.	DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	MOISTURE CONTENT(%)	OTHER TESTS
0			8.25-inches Hot Mix Asphalt. 5 Lifts: 1.75" x 1.25" x 1.25" x 1.5" x 2.5" No cracking at core location. Fourth and fifth lifts are unbonded. (HMA)				
	SM		1.0-inch Crushed Surfacing Base Course. Dense, brown, fine to coarse crushed GRAVEL, with sand, moist. (CSBC)				
	ML		Dense, brown and gray, silty SAND, with gravel, moist. (FILL)				
			Stiff, gray, silty SAND, with gravel, moist. (VASHON RECESSONAL OUTWASH)				
			Scattered peat like organics.				
3			Corehole was terminated at 2.4-feet below ground surface. No groundwater seepage was observed during the exploration.				

PAVEMENT CORE PHOTO



NOTE: This log of subsurface conditions applies only at the specified location and on the date indicated and therefore may not necessarily be indicative of other times and/or locations.

APPENDIX B

LABORATORY TEST RESULTS

APPENDIX B

LABORATORY TESTING

Representative soil samples obtained from the drilled borings were taken to the HWA laboratory in Bothell, Washington for examination and testing. Laboratory tests were conducted on selected soil samples to characterize engineering properties of the soils. Laboratory tests, as described below, included moisture content determination, grain size distribution, and Atterberg Limits. The results of the laboratory testing are presented in Appendix B.

Moisture Content of Soil: The moisture content (percent by dry mass) of select samples was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate exploration logs in Appendix A and on the Summary of Material Properties, Figure B-1.

Particle Size Analysis of Soils: The particle size distribution of select samples was determined in general accordance with ASTM D6913 (wet sieve and hydrometer method). The results are summarized on the attached Particle-Size Analysis of Soils report, Figure B-2, which also provides information regarding the classification of the samples and the moisture content at the time of testing.

Liquid Limit, Plastic Limit, and Plasticity Index of Soils (Atterberg Limits): The Atterberg limits of select samples were determined using method ASTM D 4318, multi-point method. The results are reported on the attached Liquid Limit, Plastic Limit, and Plasticity Index report, Figure B-3.

EXPLORATION DESIGNATION	SAMPLE NUMBER	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	PENETRATION RESISTANCE (blows/6")	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	PROCTOR MAXIMUM DRY DENSITY (pcf)	OPTIMUM WATER CONTENT (%)	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
							LL	PL	PI							
BH-01	S-1	0.0	1.5	6-7-9		15								SM	Dark reddish-brown, silty SAND	
BH-01	S-2	2.5	4.0	7-8-10		35	38	25	13					ML	Dark gray, SILT	
BH-01	S-3	5.0	6.5	6-7-15		23								SM	Very dark gray, silty SAND	
BH-01	S-4	7.5	9.0	37-41-50		8				41.7	52.9	5.4		SW-SM	Very dark gray, well-graded SAND with silt and gravel	
BH-01	S-5	10.0	11.5	17-26-34		8								SP-SM	Very dark gray, poorly graded SAND with silt and gravel	
BH-02	S-1a	0.3	0.5	17-16-15										GP	Brown, sandy fine crushed GRAVEL	
BH-02	S-1b	0.5	1.8			4								SM	Dark olive-brown, silty SAND with gravel	
BH-02	S-2	2.5	4.0	14-7-5		6				25.2	64.6	10.2		SW-SM	Olive-brown, well-graded SAND with silt and gravel	
BH-02	S-3	5.0	6.5	3-3-5		32	42	26	16					ML	Dark gray, SILT	
BH-02	S-4	7.5	9.0	7-21-17		8								SM	Dark gray, silty SAND with gravel	
BH-02	S-5	10.0	11.5	9-12-17		11								ML	Dark gray, sandy SILT with gravel	
BH-03	S-1a	0.0	0.5	8-10-6										SM	Dark brown, silty SAND. contains rootlets and organic matter.	
BH-03	S-1b	0.5	1.5			19	57	35	22					MH	Olive-brown, elastic SILT	
BH-03	S-2	2.5	4.0	18-16-18		11								SM	Olive-gray, silty SAND with gravel	
BH-03	S-3	5.0	6.5	36-15-17		10				41.9	53.9	4.1		SP	Dark gray, poorly graded SAND with gravel	
BH-03	S-4	7.5	9.0	13-12-9		10								SM	Olive-gray, silty SAND with gravel	
BH-03	S-5	10.0	11.5	17-33-29		8								GM	Olive-gray, silty GRAVEL with sand	

- Notes:
1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report text, other graphs and tables, and the exploration logs.
 2. "Penetration Resistance" may represent the results of standard (SPT) or non-standard penetration tests. See exploration logs.



Tulalip Pavement Preservation
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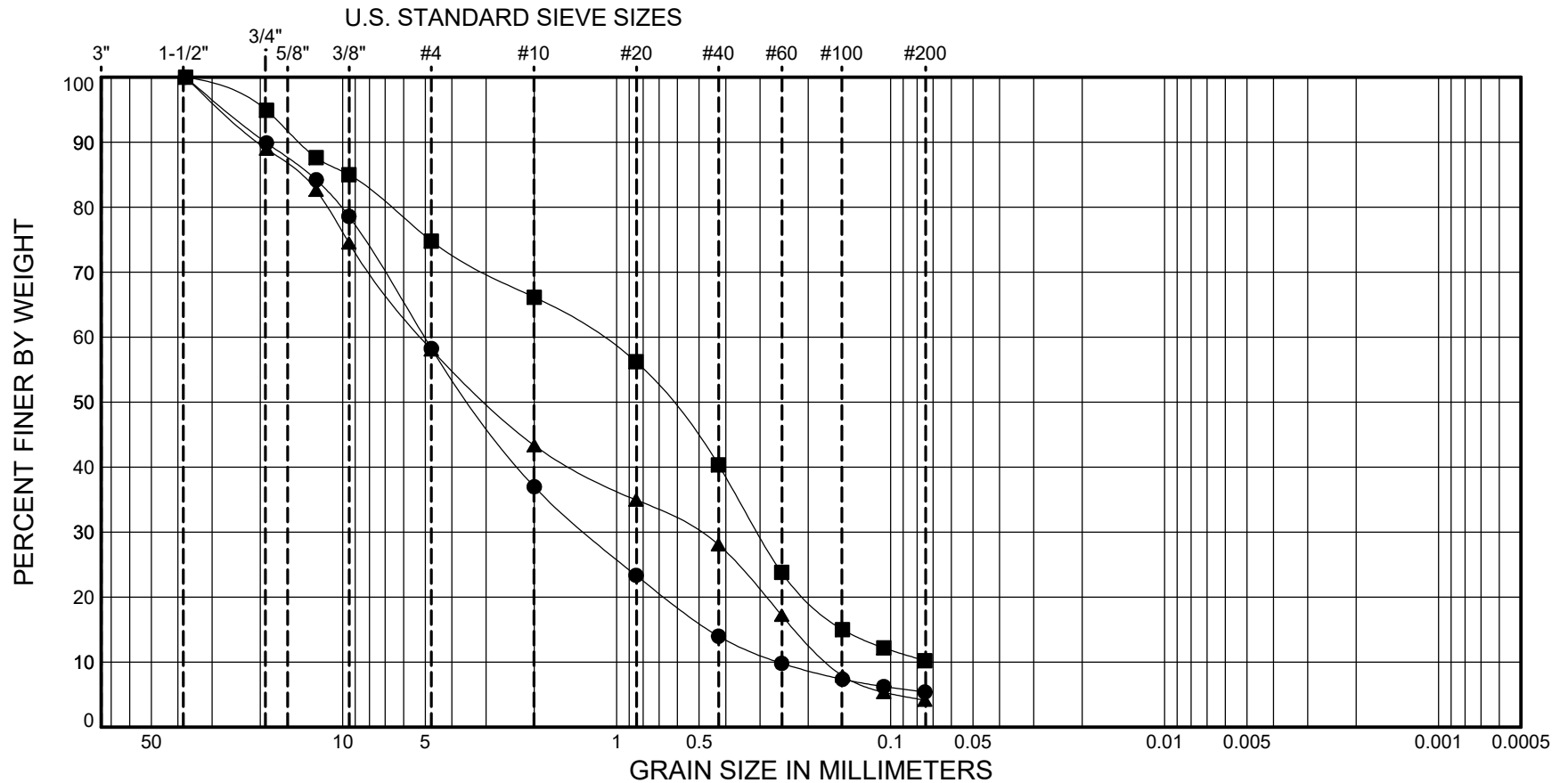
SUMMARY OF
MATERIAL PROPERTIES

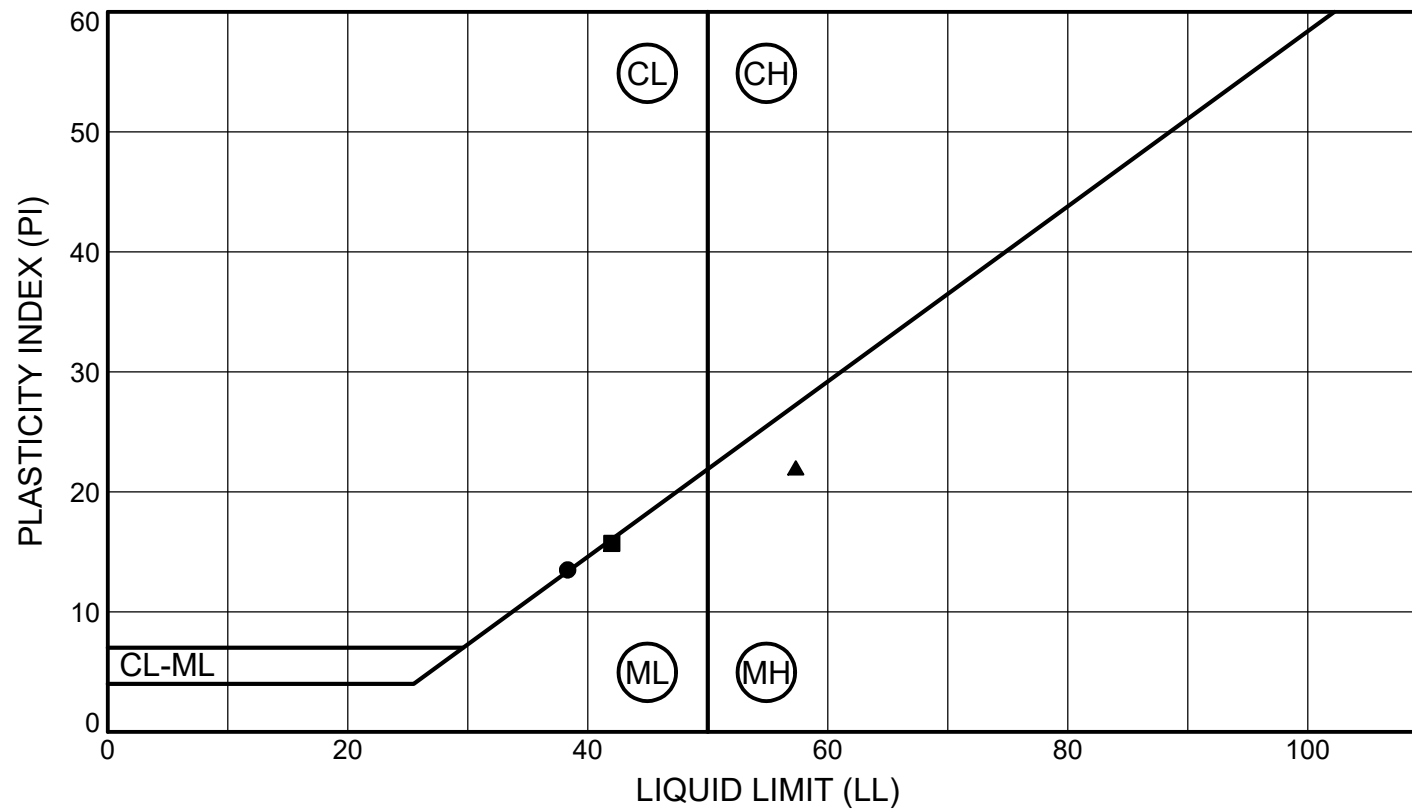
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PROJECT NO.: 2021-036-21

FIGURE: B-1

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		

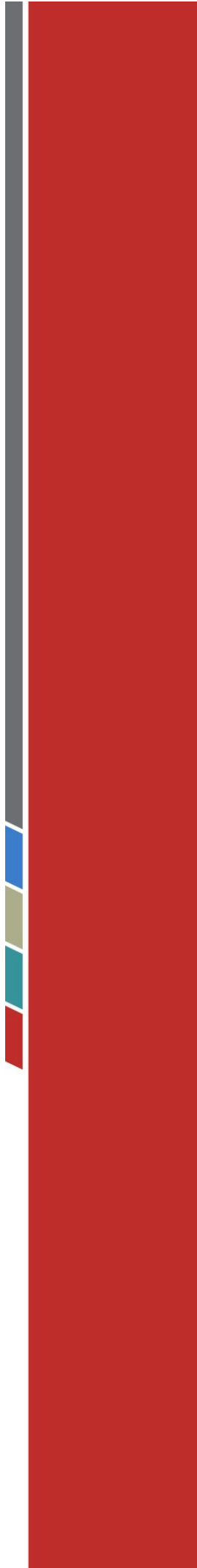




SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION	% MC	LL	PL	PI	% Fines
●	BH-01	S-2	2.5 - 4.0	(ML) Dark gray, SILT	35	38	25	13	
■	BH-02	S-3	5.0 - 6.5	(ML) Dark gray, SILT	32	42	26	16	
▲	BH-03	S-1b	0.5 - 1.5	(MH) Olive-brown, elastic SILT	19	57	35	22	

Appendix B

CONTECH Specifications



SECTION (____)
Filterra® – Vault Configuration
Bioretention System Standard Specification

1.0 GENERAL

- 1.1 This item shall govern the furnishing and installation of the Filterra® Bioretention System by Contech Engineered Solutions LLC, complete and operable as shown and as specified herein, in accordance with the requirements of the plans and contract documents.
- 1.2 Contractor shall furnish all labor, materials, equipment and incidentals necessary to install the bioretention system, appurtenances and incidentals in accordance with the Drawings and as specified herein.
- 1.3 Bioretention system shall utilize the physical, chemical and biological mechanisms of an engineered biofiltration media, plant and microbe complex to remove pollutants typically found in urban stormwater runoff. The treatment system shall be a fully equipped, pre-constructed, drop-in-place unit designed for applications in the urban landscape to treat contaminated runoff from impervious surfaces.
- 1.4 Bioretention system shall be capable of stand-alone stormwater treatment.
- 1.5 Bioretention plants shall be incorporated into the system with plant material extending into the treatment zone of the engineered media at time of Activation.
- 1.6 The bioretention system shall be of a type that has been installed and in use for a minimum of five (5) consecutive years preceding the date of installation of the system. The Manufacturer shall have been, during the same consecutive five (5) year period, engaged in the engineering design and production of systems deployed for the treatment of stormwater runoff and which have a history of successful production, acceptable to the Engineer of Record and/or the approving Jurisdiction. The Manufacturer of the Filterra Bioretention System shall be, without exception:

Contech Engineered Solutions LLC
9025 Centre Pointe Drive
West Chester, OH, 45069
Tel: 1 800 338 1122

- 1.7 Applicable provisions of any Division shall govern work in this section.
- 1.8 American Society for Testing and Materials (ASTM) Reference Specifications
 - 1.8.1 ASTM C857: Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures
 - 1.8.2 ASTM C858: Standard Specification of Underground Precast Concrete Utility Structures

- 1.8.3 ASTM C990: Standard Specification for Joints for Precast Box Sections Using Preformed Flexible Joint Sealants
 - 1.8.4 ASTM C109: Standard Test Method for Compressive Strength of Hydraulic Cement Mortars
- 1.9 Manufacturer or authorized supplier to submit shop drawings for bioretention System with the vault, engineered biofiltration media and accessory equipment. Drawings shall include principal dimensions, engineered biofiltration media placement, location of piping and unit foundation.
- 1.9.1 Manufacturer or authorized supplier shall submit installation instructions to the contractor.
 - 1.9.2 Manufacturer or authorized supplier shall submit Operations and Maintenance Manual to the contractor.
 - 1.9.3 Before installation of the bioretention system, Contractor shall obtain the written approval of the Engineer of Record for the system drawings.
- 1.10 No product substitutions shall be accepted unless submitted 10 days prior to project bid date, or as directed by the Engineer of Record. Submissions for substitutions require review and approval by the Engineer of Record, for hydraulic performance, impact to project designs, equivalent treatment performance, and any required project plan and report (hydrology/hydraulic, water quality, stormwater pollution) modifications that would be required by the approving jurisdictions/agencies. Contractor to coordinate with the Engineer of Record any applicable modifications to the project estimates of cost, bonding amount determinations, plan check fees for changes to approved documents, and/or any other regulatory requirements resulting from the product substitution.

2.0 MATERIALS

- 2.1 All internal components including engineered biofiltration media, underdrain stone, PVC underdrain piping, mulch, and vegetation must be included as part of the bioretention system and shall be provided by Contech Engineered Solutions LLC.
- 2.1.1 Engineered biofiltration media shall consist of both organic and inorganic components. Stormwater shall be directed to flow vertically through the media profile, saturating the full media profile without downstream flow control.
 - 2.1.2 Underdrain stone shall be of size and shape to provide adequate bridging between the media and stone for the prevention of migration of fine particles. Underdrain stone must also be able to convey the design flow rate of the system without restriction and be approved for use in the Filterra Bioretention System by Contech Engineered Solutions LLC.
 - 2.1.3 PVC Underdrain Piping shall be SDR35 with perforation pattern designed to convey system design flow rate without restriction.

- 2.1.4 Mulch shall be double shredded wood or bark mulch approved for use with the Filterra Bioretention System by Contech Engineered Solutions LLC.
- 2.1.5 Vegetation shall comply with the type and size required by the approved drawings and shall be alive and free of obvious signs of disease.
- 2.2 Precast concrete vault shall be provided by Manufacturer or authorized supplier according to ASTM C857 and C858.
 - 2.2.1 Vault joint sealant shall be Conseal CS-101 or approved equal. Joints shall be sealed with preformed joint sealing compound conforming to ASTM C 990.
 - 2.2.2 If interior concrete baffle walls are provided, baffle walls shall be cast-in or sealed to the interior vault walls and floor with a polyurethane construction sealant rated for use below the waterline, SikaFlex 1a or equal. Contractor to provide sealant material and installation unless completed prior to shipment.
- 2.3 Tree grates and access covers shall be cast iron. Tree grate frames shall be galvanized steel.
- 2.4 Curb Nosing (where applicable) shall be galvanized steel and where specified shall be cast into a top slab designed to support AASHTO HS-20 loading at the curb.
- 2.5 All contractor-provided components shall meet the requirements of this section, the plans specifications and contract documents. In the case of conflict, the more stringent specification shall apply.
 - 2.5.1 Crushed rock base material shall be six-inch minimum layer of ¾-inch minus rock. Compact undisturbed sub-grade materials to 95% of maximum density at +/-2% of optimum moisture content. Unsuitable material below sub-grade shall be replaced to engineer's approval.
 - 2.5.2 Concrete shall have an unconfined compressive strength at 28 days of at least 3000 psi, with ¾-inch round rock, a 4-inch slump maximum, and shall be placed within 90 minutes of initial mixing.
 - 2.5.3 Silicone Sealant shall be pure RTV silicone conforming to Federal Specification Number TT S001543A or TT S00230C or Engineer approved.
 - 2.5.4 Grout shall be non-shrink grout meeting the requirements of Corps of Engineers CRD-C588. Specimens molded, cured and tested in accordance with ASTM C-109 shall have minimum compressive strength of 6,200 psi. Grout shall not exhibit visible bleeding.
 - 2.5.5 Backfill material shall be ¾-inch minus crushed rock, or approved equal.

3.0 PERFORMANCE

- 3.1 Treatment Capabilities shall be verified via third-party report following either TAPE or TARP protocols.

- 3.1.1 Engineered biofiltration media minimum treatment flow rate shall be 140"/hr. The system shall be designed to ensure that high flow events shall bypass the engineered biofiltration media preventing erosion and resuspension of pollutants.
 - 3.1.2 The system shall remove a minimum of 85% Total Suspended Solids (TSS).
 - 3.1.3 The system shall remove a minimum of 62% Total Phosphorus (TP).
 - 3.1.4 The system shall remove a minimum of 34% Total Nitrogen (TN).
- 3.2 The system shall have General Use Level Designation from Washington Department of Ecology for Basic (TSS), Phosphorus, Enhanced (Metals), and Oil/Grease and have Certification by New Jersey Department of Environment.
- 3.3 Quality Assurance and Quality Control procedures shall be followed for all batches of engineered biofiltration media produced. Engineered biofiltration media shall be certified by the Manufacturer for performance and composition.
- 3.3.1 Media particle size distribution and composition shall be verified as per relevant ASTM Standards.
 - 3.3.2 Media pollutant removal performance shall be verified as per relevant ASTM Standards as well as a minimum of one scientific method approved by the USEPA.
 - 3.3.3 Media hydraulic performance shall be verified as per relevant ASTM Standards.
 - 3.3.4 Media fertility shall be verified as per a minimum of one published scientific method.
- 3.4 The Manufacturer shall ensure through third party full scale field testing of installed units that the design flow rate of the system is not reduced over time. Studies shall be performed on a minimum of 10 systems of various ages, maintenance frequencies, and land uses. At least 80% of the tested systems shall have been installed 2.5 or more years. At least 50% of the systems shall have previous maintenance intervals greater than 2 times the manufacturer's recommendation.

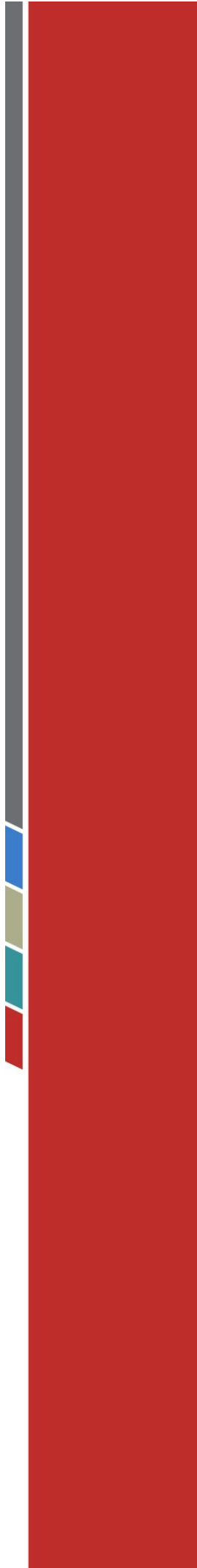
4.0 EXECUTION

- 4.1 Set precast vault on crushed rock base material that has been placed in maximum 6-inch lifts, loose thickness, and compacted to at least 95-percent of the maximum dry density as determined by the standard Proctor compaction test, ASTM D698, at moisture content of +/- 2% of optimum water content.
- 4.2 Inlet and outlet pipes shall be attached to provided couplers or grouted in and connected to precast concrete vault according to Engineer's requirements and specifications.
- 4.3 All throat and grate protection covers shall remain in place until the system is activated.

- 4.4 Contractor to cast-in-place throat inlet to convey stormwater into bioretention System according to Engineer's requirements and specifications.
- 4.5 Engineered biofiltration media shall be delivered installed in the vault, unless otherwise agreed upon with the Manufacturer. Contractor shall take appropriate action to protect the media from sediment and other debris during construction. The method ultimately selected shall be at Contractor's discretion and Contractor's risk.
- 4.5.1 If media is shipped separately from vault, Manufacturer or a Manufacturer's certified representative shall install media into the vault or be present to supervise installation in order to ensure proper installation.
- 4.6 The bioretention system shall not be placed in operation (activated) until the project site is clean and stabilized (construction erosion control measures no longer required). The project site includes any surface that contributes storm drainage to the system. All impermeable surfaces shall be clean and free of dirt and debris. All catch basins, manholes and pipes shall be free of dirt and sediment. Activation shall be provided by Manufacturer or authorized supplier.
- 4.7 Each correctly installed system shall be maintained by Manufacturer or authorized supplier for a minimum period of one year. The cost of this service shall be included in the price of the system.
- 4.7.1 Annual maintenance consists of a maximum of two [2] scheduled visits.
- 4.7.2 Each routine maintenance visit shall consist of only the following items: system inspection; removal of foreign debris, silt, loose plant material and trash; mulch removal; engineered biofiltration media evaluation; plant health evaluation and pruning; replacement of mulch; disposal of all maintenance refuse items; and updating of maintenance records.
- 4.8 To ensure long term performance of the bioretention system, continuing annual maintenance programs should be performed or purchased by the owner per the latest Filterra Bioretention System Operation and Maintenance manual.

Appendix C

Snohomish County PUD Standards



Self-Supporting, Direct Buried Fiberglass Street Light Pole

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1. SCOPE

This specification applies to round tapered single piece self-supporting, direct-buried fiberglass street light pole. This pole shall meet all the strength requirements of local, state, and national safety codes, assuming a 90 M.P.H. wind loading condition. Pole shall accommodate mounting of the 6' mast arm defined by District Material Standard No. 1000984.1, latest revision.

2. CATALOG ID NUMBER

This specification applies to the following District Catalog ID Number: *711300*

3. REFERENCE STANDARDS

Poles supplied under this Specification shall conform to the characteristics, definitions, terminology, and requirements of the latest editions, amendments, and supplements of the applicable parts of the following standards, except as otherwise specified herein.

ANSI C136.20 — Fiber Reinforced Plastic (FRP) Lighting Poles for Use on Roadway Lighting

ASTM A 153 — Zinc Coating (Hot Dip) on Iron and Steel Hardware

ASTM D 635 — Flame Resistance

NEMA SH4 — Luminaire Attachments

4. POLE LENGTH, SETTING DEPTH AND WEIGHT

Refer to "Exhibit B", Framing Requirements.

The overall length of the pole shaft shall provide a 30' nominal luminaire mounting height above final grade surface on a tapered oval 6' aluminum mast arm with a 24" rise.

The pole shall require a 5' maximum setting depth in class 5 soil.

The maximum weight of the pole shall not exceed 130 pounds.

5. FINAL GRADE DEPTH AND MARKING

The final grade setting depth shall be 48" below the center of the wire access handhole and shall be marked with a transparent removable tape. Tape shall be 1"- 2" in height and at least 12" in length.

The wording "Final Grade" shall be printed on the tape as a quick guide to identify the proper setting depth of the pole.

The tape adhesive shall provide for easy removal without damaging finish of pole, however, the adhesive shall be adequate to adhere tape to pole during initial shipment and delivery to job site without falling off.

6. POLE LOADING

The pole shall sustain a lateral load of 250 pounds applied at the top of the pole in any direction without failure of any component part and with the deflection of not more than 12% plus or minus 1% of the height of the pole from the groundline to top.

The pole shall sustain a vertical load of 250 pounds applied at the free end of the luminaire mast arm without collapse or rupture of any portion of the structure.

At the end of the 6' tapered oval aluminum luminaire mast arm mounting bracket, the pole shall sustain a vertical load of 100 pounds applied with the vertical deflection of not more than 5% of the bracket length; at the same point the pole shall sustain a horizontal load of 50 pounds applied in either direction with a horizontal deflection of not more than 7-½% of the bracket length.

7. POLE IDENTIFICATION

Refer to "Exhibit A", Framing Requirements.

The manufacturer's name or logo, catalog number and date of manufacture (month/year) shall be permanently tagged, embossed or stamped on the face of the pole approximately 6" above the wire access handhole. Tag identification shall remain legible after pole finish is applied. Tags shall be secured with aluminum pop-rivets. The stem of each rivet shall not protrude past the outer lip of the rivet causing a potential safety hazard.

Self-Supporting, Direct Buried Fiberglass Street Light Pole

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8. FLAME RESISTANCE

The pole shall be flame resistant in accordance with ASTM D 635.

9. POLE CAP

Each pole shall include a cast aluminum, hot dip galvanized steel or heavy duty District approved fiberglass pole cap. Caps shall fit snugly and shall be shipped securely attached to poles with at least two stainless steel or galvanized securing screws.

Metal caps shall not be painted. Fiberglass caps shall be same finish as pole.

10. MAST ARM ATTACHMENT PROVISION

Refer to "Exhibit A", Framing Requirements.

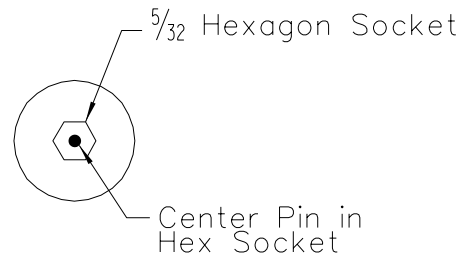
The pole shall be delivered pre-drilled as specified to accommodate a 6' tapered oval aluminum luminaire mast arm with a 24" rise.

11. WIRE ACCESS HANDHOLE

Refer to "Exhibit A", Framing Requirements.

Each pole shall have one 4" wide x 12" high oval-shaped wire access handhole on the face side of the pole. The center of each access handhole shall be located 4'-0" above the Final Grade and 6'-0" above the center of the cable entrance hole.

Each handhole shall be provided with a molded or cast access cover plate made of aluminum, hot dip galvanized steel or District approved heavy duty composite, same finish as pole. The access cover plate shall fit snugly to pole surface without gaps or flexing to restrict access into the pole without removing the cover. This access cover plate shall be secured to the pole with two, 1/4"-20 UNC stainless steel vandal-resistant 5/32" hexagon pin socket screws that thread into a District approved non-conductive back bar inside the pole in order to hold the cover snugly to the pole when the screws are tightened. The handhole cover screws shall have some means of a stop on the inside end to prevent accidental removal from unscrewing too far.



When the cover is removed for access inside the pole, the cover shall be held captive to the pole by means of a coated stainless steel tether wire, approximately 15" in length. Tether wire shall be securely attached to the pole with an aluminum pop-rievet and backing washer. The location of the pop-rievet on the pole shall be just below the handhole opening and shall not conflict with the access cover. The aluminum pop-rievet and backing washer shall be installed in a quality workmanship manner to allow the cover to hang from the tether inside the pole and to prevent the tether from being pulled loose and the cover from being accidentally dropped inside the pole. The stem of each rivet shall not protrude past the outer lip of the rivet causing a potential safety hazard.

The manufacturer's name or logo shall be permanently embossed or stamped on the face of access cover plate.

12. CABLE HOLES

Refer to "Exhibit A", Framing Requirements.

The pole shall have one round shaped cable entrance hole near the top on the face side of the pole that will provide direct access to the inside of the mast arm. This hole shall have an inside dimension of 1-1/2" with a tolerance of +1/2"/-0" *after the grommet is installed* and be centered between the mast arm mounting holes and 9" below the top of the pole.

The pole shall have one oval shaped cable/conduit entrance hole centered 36" from the bottom of the pole, 72" below the center of the wire access handhole specified in Section 11 and positioned 180° from the face. This hole shall have a minimum inside dimension of 3" wide x 6" high.

All cable hole openings shall be fitted with grommets to protect the electrical conductors from damage due to the abrasive edges of the holes. All grommets shall be installed with an adhesive to secure them during shipping, handling and installation of the pole.

The dimensions of all cable hole measurements specified above shall be after the grommets are installed.

Self-Supporting, Direct Buried Fiberglass Street Light Pole

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13. POLE STABILITY

Refer to "Exhibit A", Framing Requirements.

Pole shall have a permanently installed anti-rotational device (flared base, or other District approved permanently installed method) to provide resistance to rotation and pullout.

14. FINISH

All poles furnished under this Material Standard shall have aesthetically pleasing surfaces and shall be free from imperfections, discolorations and stains.

The outer surface of the pole shall have a polyester surface veil cloth to extend the life of the pole.

The laminate (resin) shall contain colored pigment to match the finish coat of the pole. Solid coloration shall be throughout the entire wall thickness of the pole.

The pole finish shall have a smooth finish that resembles a polished surface. The final surface shall be free of all nubs, bristles roughness or imperfections and shall be uniform and consistent the entire length of the pole.

The finish coating shall be a light gray in color per ANSI Z55.1, No. 70, pigmented solvent base polyurethane finish for maximum resistance to deterioration from exposure to ultraviolet light, chemicals and extreme weather conditions.

The finish coating shall have a minimum dry film thickness of 1-½ mils.

15. POLE INTERIOR

Pole interior shall be completely free of all wrapping, dust, fiberglass shavings and other preparation products to allow a clear and unobstructed path for installation of the wiring conductors.

16. POLE PACKAGING AND DELIVERY

Each pole shall be individually wrapped in a 4 mil opaque plastic bag to protect them from dirt, grime, diesel smoke, etc. Bag shall be sealed or otherwise secured to pole to keep bag from tearing or blowing off in transit.

Poles shall be shipped ten to a bundle. Poles shall be arranged five across and two deep.

The preferred method of packaging poles for shipping is shown in "Exhibit B" Packaging Detail. The alternate method of packaging poles for shipping is shown in "Exhibit C" Packaging Detail, if the poles are properly packaged as shown.

The preferred method of securing pole bundles shall be by using cushioned 2" x 4" support braces and 2" x 4" cushioned support spacer located in-between each layer of poles at each bracing/banding strap location to eliminate poles rubbing together or shifting during shipments. Positions of the bracing and banding shall be approximately 42" to 48" from each end and one in the center of the bundle. Any shipment of poles arriving with shipment damage are subject to the entire shipment being refused without unloading.

Pole bundles shall be easily loaded and unloaded by forklift without damage to the poles.

17. BIDDER'S DATA

Each bidder shall submit an outline drawing of pole including all dimensions. Each bidder shall also submit with their proposal complete data and information as requested in Exhibit "D" of this Standard. A description of any proposed changes, additions or exceptions to the Standard, shall be submitted along with reasons for the departure.

18. EVALUATION OF BIDS

The following factors will be considered in the analysis and evaluation of bids and subsequent bid award:

- Adherence to Standard
- Quality of product
- Past performance of Product and Bidder
- Proposed delivery
- Per unit bid price

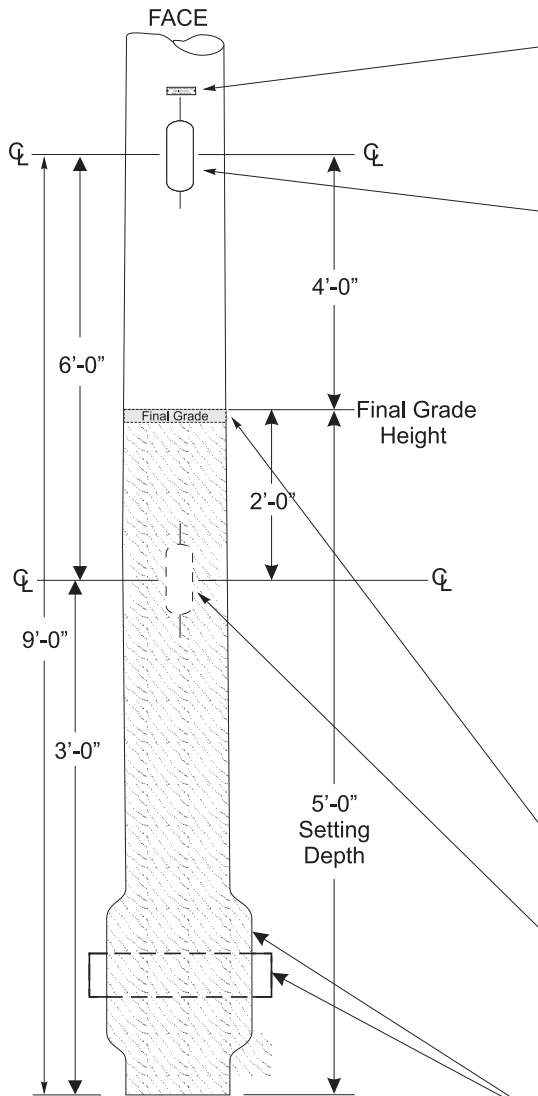
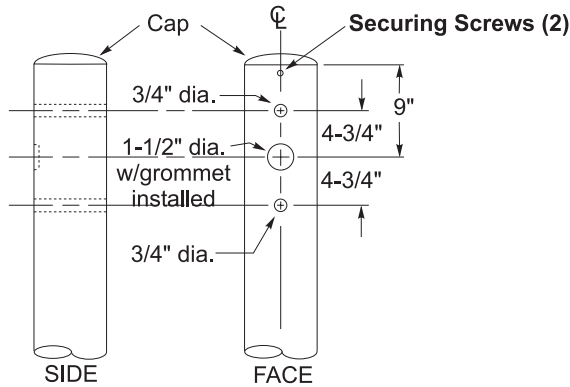
19. GENERAL BIDDING CONDITIONS

The attached General Bidding Conditions in Exhibit "D" of this Standard are made a part of this specification.

EXHIBIT A FRAMING REQUIREMENTS

NOTES:

- Pole Cap:** Shall be secured in a place with at least 2 stainless steel or galvanized securing screws.
- Mast Arm Attachment Provisions:** Holes shall be centered on the face of the pole at 90° from the centerline of the lower cable entrance holes.
- Overall Pole Length:** Shall provide a 30' nominal luminaire mounting height on a tapered oval 6' aluminum mast arm with a 2' rise.
- Final Grade Setting Depth:** Shall be 4' -0" below the centerline of the wire access handhole and marked with a transparent removable tape with the wording "Final Grade" indicating the setting depth of the pole.



Pole Identification: Manufacturer's name or logo, catalog number and date of manufacture (month/year) shall be permanently tagged, embossed or stamped on the face of the pole approximately 6" above the wire access hole, and shall remain legible after the pole finish is applied.

Wire Access Handhole: Oval-shaped 4" wide x 12" high with a molded or cast access cover plate made of aluminum, hot dip galvanized steel or District approved heavy duty composite, same finish as pole. The access cover plate shall fit snugly to pole surface without gaps or flexing to prevent access into the pole without removing the cover. This access cover plate shall be secured to the pole with two 1/4"-20 UNC vandal-resistant stainless steel 5/32" hexagon pin socket-head screws that thread into a District approved non-conductive back bar inside the pole (in order to hold the cover snugly to the pole when the screws are tightened). Screws shall have some means of a stop on the inside end to prevent accidental removal by unscrewing too far. Manufacturer's name or logo shall be permanently embossed or stamped on the face of access plate cover. Cover shall be captive to pole when removed by means of coated stainless steel tether wire. Captive tether shall be securely attached to pole below handhole with pop-rivit and backing washer installed in a quality workmanship manner to allow cover to hang inside pole and to prevent the cover from accidentally dropping inside the pole.

Final Grade Marking: Transparent removable tape with the wording "final Grade" indicating the setting depth of the pole.

Cable/Conduit Entry Hole: One 3" wide x 6" high minimum oval-shaped with grommets. Dimensions to be after installation of grommets. Hole to be oriented 180° from the wire access handhole and top cable entrance hole.

Anti-Rotation Device: Approved method, permanently installed.

EXHIBIT B PREFERRED PACKAGING DETAIL

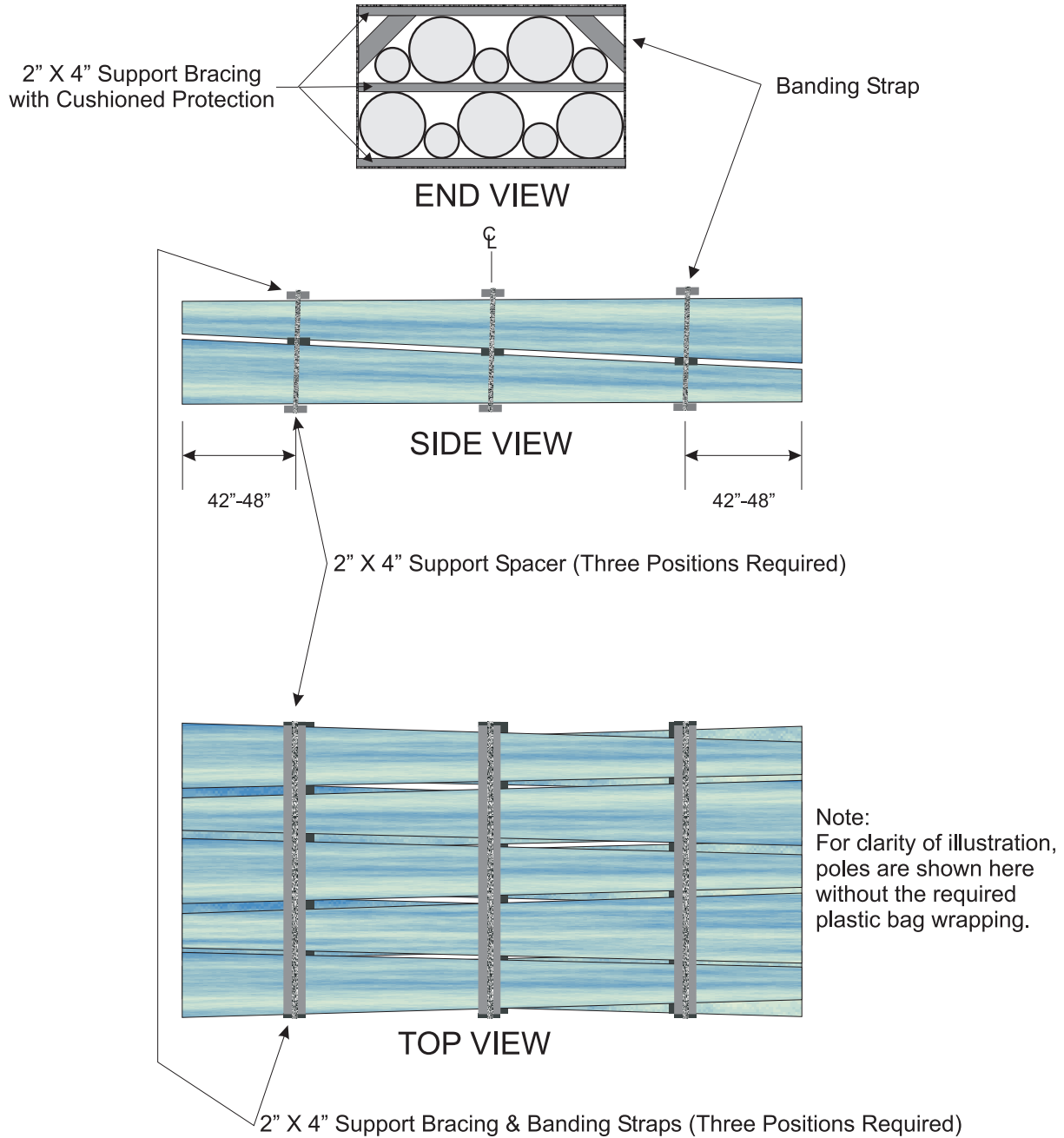
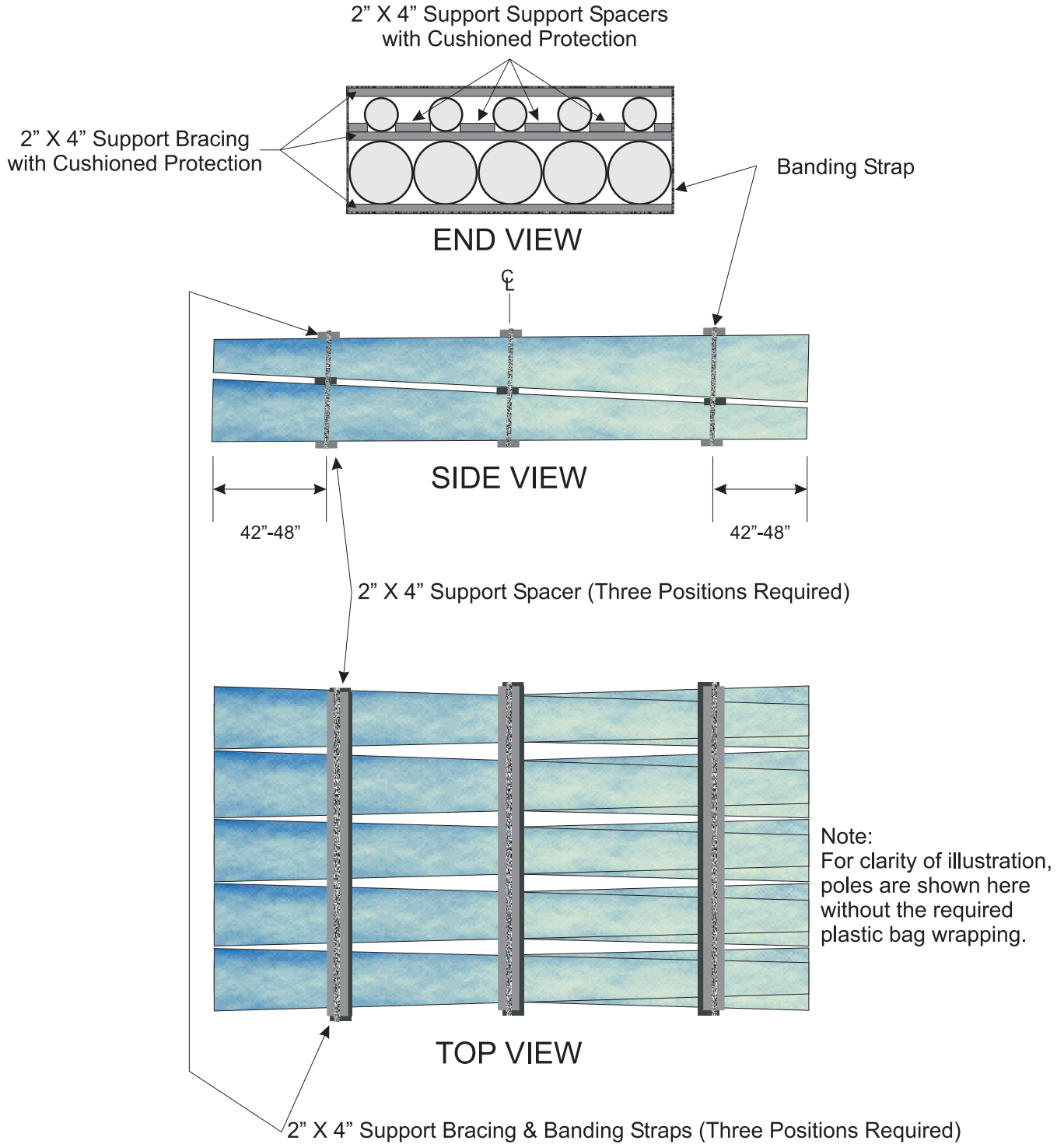


EXHIBIT C ALTERNATE PACKAGING DETAIL



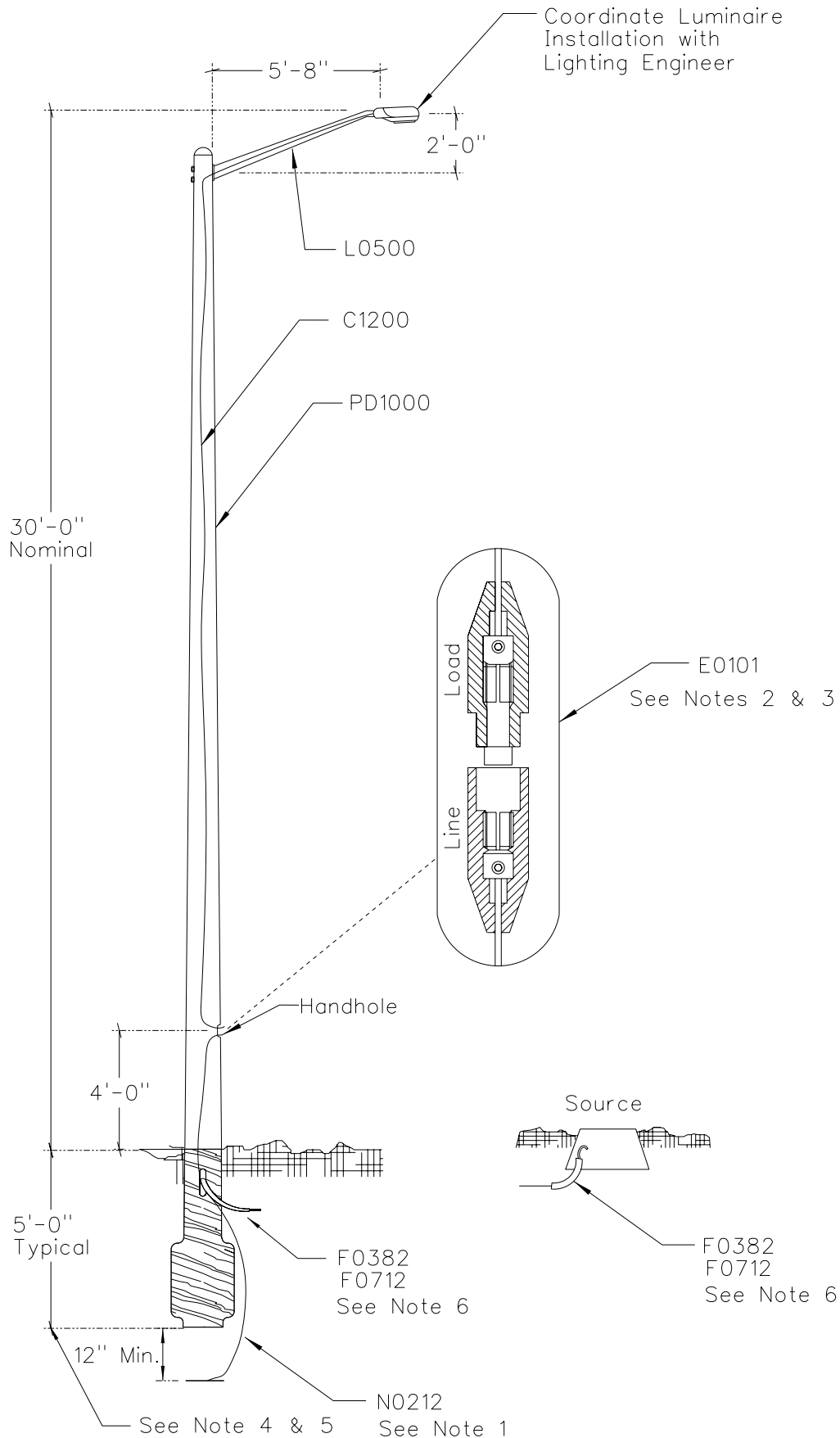
Self-Supporting, Direct Buried Fiberglass Street Light Pole

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EXHIBIT D BIDDERS DATA SHEET

Manufacturer's Name: _____ Bid Opening Date: _____

Item	Description	Guaranteed Values/Responses
1.	Overall Pole Length	_____
2.	Setting Depth	_____
3.	Pole Weight	_____
4.	Pole Cap Material	_____
5.	Wire Access Handhole Size	_____
6.	Wire Access Handhole Cover Plate Material	_____
7.	Top Cable Entrance Hole Size	_____
8.	Bottom Cable/Conduit Entrance Holes (2) Size	_____
9.	Hi-Gloss Paint Material To Be Used	_____
10.	Bundled Quantity for Palleted Poles	_____
11.	Packaging Detail Method To Be Used	_____
12.	Mode of Delivery	_____
	a. Open Flatbed Trailer	
	b. Removable Tarp Side Trailer	



Notes:

1. Connect the #4 Cu pole ground to the #12 Cu street light equipment ground with a #4 Cu split bolt connector (C.U. Z0404).
2. Fuseholder(s) are to be installed inside the pole. Leave enough slack conductor to allow for removing them.
3. For 240 volt systems use 2 fuses and 2 hot leg fuseholders (C.U. E0101).
4. Because of variations in overall pole length among manufacturers, adjust pole setting depth to place the centerline of the handhole 48" above final grade.
5. Backfill the pole hole with crushed rock as needed for stability to ensure that the pole sets straight.
6. The preferred method of extending 2" rigid PVC street lighting conduit up into a pedestal or pole is to install a short section of 2" corrugated flexible PVC conduit on each end. Use of 2" rigid PVC bends (C.U. F0602) is an acceptable alternate method.

MATERIAL LIST

QTY	C.U.	DESCRIPTION	QTY	MID
35	C1200	Wire, #12/2 UF-B	35'	1002796
1	E0101	Fuse, Street Light 6.25A	1	312405
		Fuseholder, Street Light Hot Leg 1-Wire	1	312603
10	F0382	Conduit, PVC Corrugated Flexible Grey 2"	10'	250142
2	F0712	Coupling, Conduit PVC Sch 40 Long 2"	2	250481
1	L0500	Mast Arm, Street Light 6' Al, Fiberglass Pole Type	1	1000984
		Bolt, Machine 5/8" x 7" Hex Head	2	1000995
		Washer, Galv Sq 2-1/4" Curved 11/16" Hole	2	1000996
		Washer, Galv Double Coil Spring Lock 5/8"	2	1001443
1	N0212	Wire, #4 Cu Bare SD Sol	10'	848476
		Screw, Self-Drilling SS #8-18 x 3/4"	4	1001615
		Tag, Grounding	1	1001802
		Plate, Cu Ground 144 in ²	1	1001807
1	PD1000	Pole, 35' Fiberglass Street Light with 6' Al Mast Arm	1	711300

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UNDERGROUND SERVICE

A. GENERAL

1. All conditions for service application, availability of service, type of service, electrical wiring permit, inspection, right-of-way, easements, etc., are covered in “Section 2, General Requirements.”
2. Availability and location of District facilities for providing underground service shall be determined at the District’s office before proceeding with the wiring. Only one service strike will be allowed per building **with the exception of single-family residential zero-lot-line townhomes [units that share common wall(s)]. For these townhomes, a separate individual service run and meter base/socket will be allowed for each unit.** Plans, specifications, load data, grades and stakes Form #1373 for all underground services shall be submitted to the District as much in advance as possible prior to any construction.
3. The District will design, install, own and maintain the complete primary underground electric distribution system and all associated secondary distribution in the public right-of-way.
4. Underground service installation requiring a special voltage or more than 30 feet of road boring will require individual consideration for feasibility and charges required.
5. The customer shall notify Utilities Underground Location Center by calling **811** or **1-800-424-5555** not less than two-business days or more than ten business days before the commencement of excavation or trenching to allow for location of existing underground utilities by their representatives (RCW 19.122.030).

B. PRIMARY SERVICE - RESIDENTIAL SYSTEMS ON PRIVATE PROPERTY

1. The customer shall prepare the vault site, provide easements, trenching, conduits, pull ropes, and related equipment on private property.
2. The District will install, own and maintain the vault, grounds, secondary handhole and secondary service conductors.

C. PRIMARY SERVICE - COMMERCIAL SYSTEMS ON PRIVATE PROPERTY

1. The customer shall provide easements, trenching, conduits, pull ropes, vaults, handholes, grounds, secondary service conductors and related equipment on private property.

Section 4. Underground Service

2. Transformer vaults, pulling/switching handholes and other equipment vaults shall be located in accordance with the requirements listed in Section 4-K of this section. Refer also to Section 4 Table 2 & 3 for specifics on various vaults, pads and handholes required for each individual project as determined by the District.

Note: Acceptable precast concrete products are locally available from three companies:

Oldcastle Precast, Inc.
Auburn, WA - phone - 800-892-1538

CUZ Concrete Products
Arlington, WA - phone - 800-659-1941

Granite Precasting & Concrete, Inc.
Bellingham, WA - phone - 800-808-2251

3. Systems on Private Property

The District will design, install, own and maintain the primary underground cable, transformers and switch cabinets as required for distribution systems on private property.

Exception: The District shall not normally provide this service beyond primary metering if the system is customer owned.

D. TRENCHING

1. For primary and secondary service trenching requirements refer to Figures 4-1 through 4-3.
 - a. The minimum cover depth for secondary service shall be 24 inches and the maximum trench depth shall be 47 inches.
 - b. The minimum cover required for primary, 36". The maximum trench depth for secondary or primary conductor shall be 47". Refer to Figure 4-1.
2. All secondary service conductors are to be installed in continuous conduit from the meter base or CT can to the District's point of service.
3. In general, all trenching, backfilling and restoration work on private property shall be done by the customer.
4. Minimum depth requirements may be reduced where unusual soil conditions dictate. Contact the District for specific requirements for these cases.
5. Gas lines shall be staked every 10' as required to maintain separation.
6. For minimum separation between electric lines and other utilities refer to Figure 4-1 on Page 4-10.

Section 4. Underground Service

7. The bottom of the trench should be undisturbed, tamped, or relatively smooth earth. Where the excavation is in rock, the conduit should be laid on a protective layer of clean tamped backfill. Backfill within 6" of the electrical conduit should be free of solid material greater than 4" maximum or sharp edges likely to damage it. The balance of backfill should be free of solid material greater than 8" in maximum dimension. All backfill should be free of materials that may damage the conduit system (large rock or paving material, cinders, large or sharply angular substance, or corrosive material). Refer to NESC 321. Sand shall be required if select backfill material is not available. Select backfill or sand shall provide a 3" bedding below the conduit and a minimum cover of 3". Refer to Section 1, page 2, Backfill definition. Backfill material should be adequately compacted.

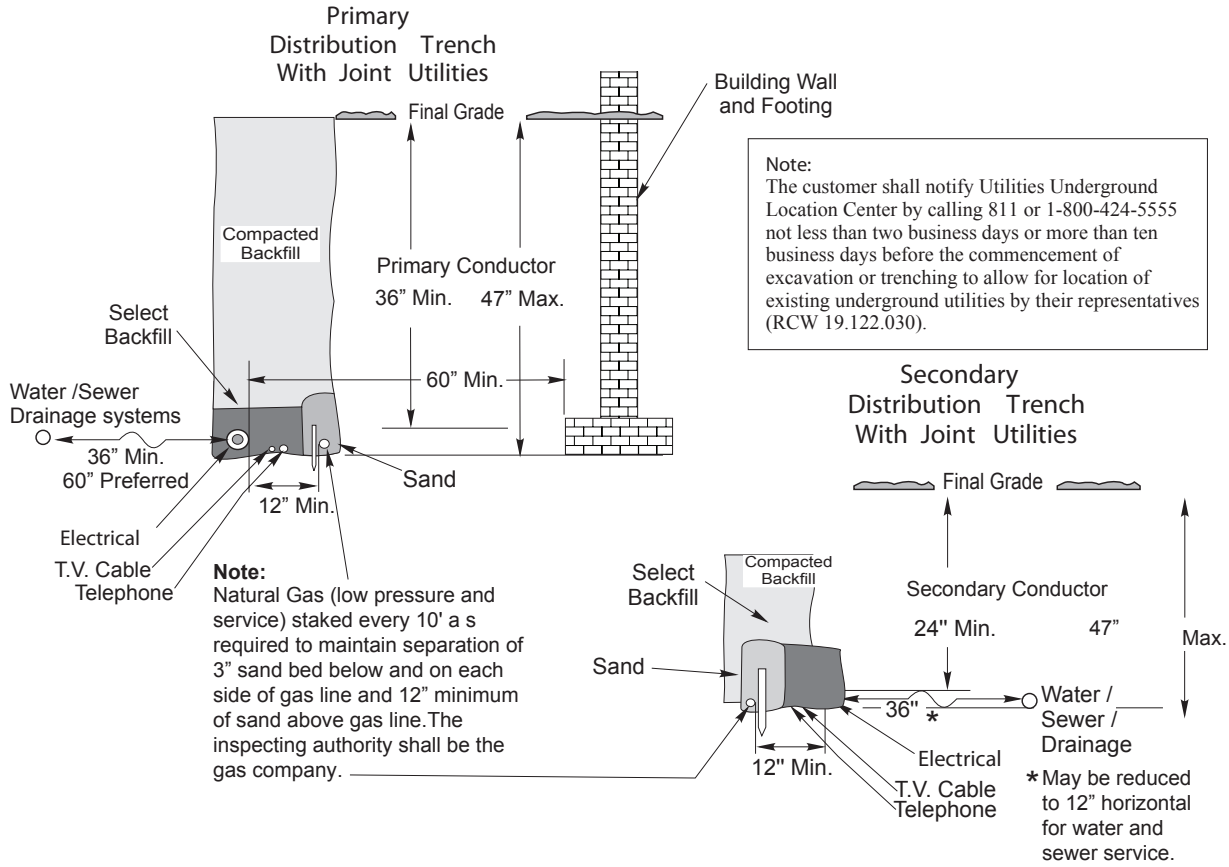
Note: *The District must inspect and approve all conduit installations prior to backfilling.*

8. The customer shall trench all the way to the District pedestal or point of service.
9. Within 24 hours after the District's inspection of the ditch and conduit and prior to the District installing the service and meter the customer shall prepare a work area leveled and cleared of all debris and obstructions at the metering point to provide the service conductors to be safely installed by the District. This work area shall be 5 feet x 5 feet minimum centered around the meter base, backfilled and compacted to within 4 inches of final grade.

Section 4. Underground Service

TRENCHING DETAIL

FIGURE 4-1



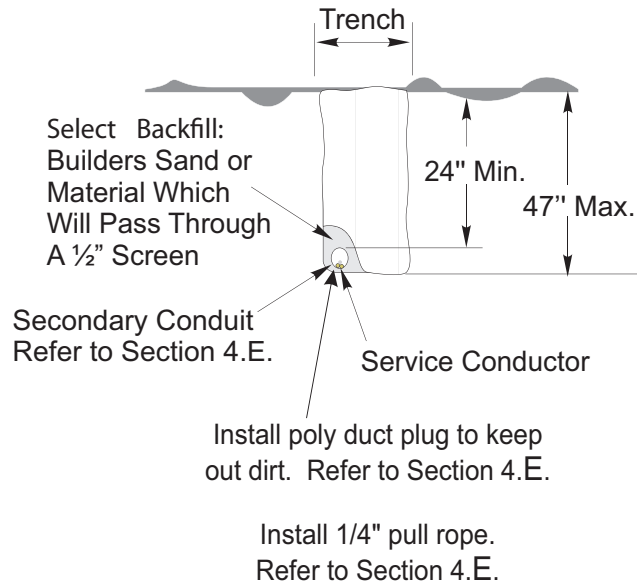
Minimum Clearances from District Underground Lines in Conduit

Type of Utility Line	Vertical Separation (Crossings)			Horizontal Separation		
	Electric Primary	Electric Secondary Main	Electric Secondary Service (300V Max.)	Electric Primary	Electric Secondary Main	Electric Secondary Service (300V Max.)
Communication	6"	6"	6"	0"	0"	0"
Communication Service	3"	3"	3"	0"	0"	0"
High Pressure Gas	12"	12"	12"	36" (60" Preferred)	36" (60" Preferred)	36" (60" Preferred)
Low Pressure Gas	6"	6"	6"	12"	12"	12"
Gas Service	6"	6"	6"	12"	12"	12"
Sewer Main & Lateral	12"	12"	12"	36" (60" Preferred)	36" (60" Preferred)	36" (60" Preferred)
Sewer Service	12"	12"	6"	36"	36"	12"
Water Main & Lateral	12"	12"	12"	36" (60" Preferred)	36" (60" Preferred)	36" (60" Preferred)
Water Service	12"	12"	6"	36"	36"	12"
Storm & Roof Drains	12"	12"	6"	36" (60" Preferred)	36" (60" Preferred)	36" (60" Preferred)
Lighting & Electric Supply	6"	6"	6"	0"	0"	0"

Section 4. Underground Service

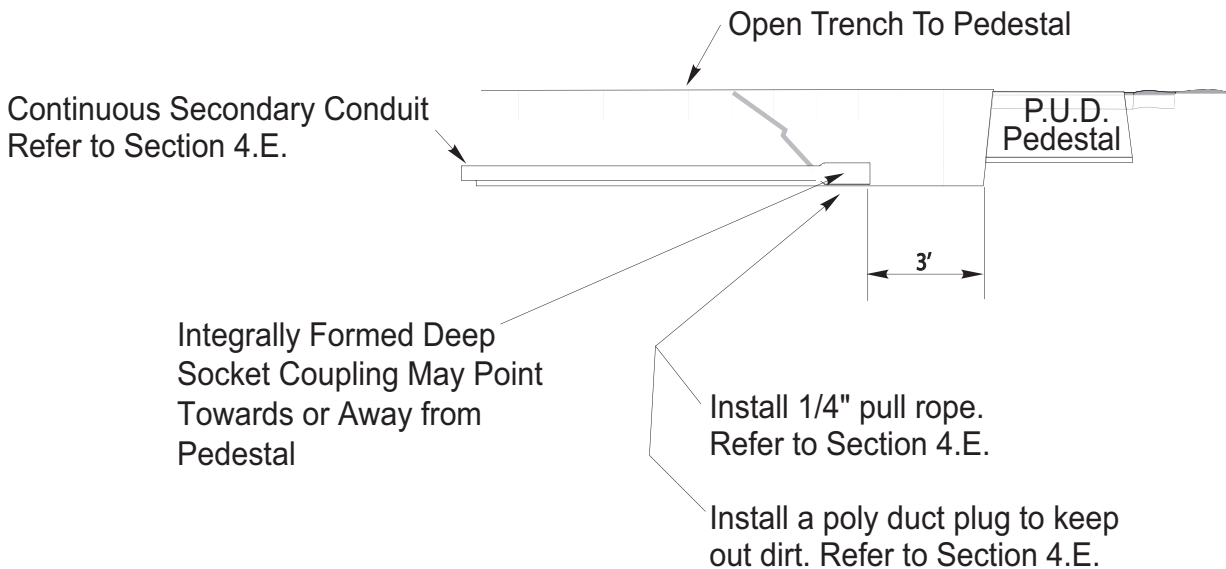
TRENCHING & CONDUIT DETAIL

FIGURE 4-2



Note:

The customer shall notify Utilities Underground Location Center by calling 811 or 1-800-424-5555 not less than two business days or more than ten business days before the commencement of excavation or trenching to allow for location of existing underground utilities by their representatives (RCW 19.122.030).



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E. CONDUIT AND FITTINGS FOR DISTRICT INSTALLED CONDUCTORS

1. All nonmetallic PVC conduit and fittings shall be pigmented gray in color and must be manufactured by a currently approved District manufacturer in addition to meeting the following requirements:
 - a. The following information shall be imprinted on all PVC conduit:
 1. *Manufacturer's name or trademark*
 2. *Nominal size*
 3. *Material (PVC)*
 4. *Standard designation (for example, NEMA TC-2)*
 5. *Type (for example, Schedule 40)*
 6. *Maximum 90° wire, Max. 90°C wire or equivalent phraseology*
 7. *Date code or month and year of manufacture*
 - b. 1", 2", 2-1/2" and 3" PVC conduit shall be gray and shall meet or exceed the requirements of the following standards:
 1. *NEMA TC-2 (Schedule 40 or 80)*
 2. *District Material Standard No. 250027.1*
 - c. 4" and 6" PVC shall be gray and shall meet or exceed the requirements of District Material Standard No. 250027.1 and any one of the following standards:
 1. *NEMA TC-6 DB-60*
 2. *NEMA TC-8 DB-120*
 3. *NEMA TC-2 (Schedule 40 or 80)*
 4. *ASTM F-512 DB-60*
 - d. Schedule 40 or 80 gray PVC conduit is required for service riser according to NEC 300-5d. and NEMA Standard TC-2 for applications listed below:

Type III - Designed for normal-duty applications above ground (Sch 40)
Type IV - Designed for heavy-duty applications above ground (Sch 80)
(Hazardous areas, e.g., next to driveways)
 - e. Primary conduit bends shall be heavy wall fiberglass or hot-dip galvanized rigid steel electrical conduit.
 - f. All conduit bends shall be long radius type.

<u>Conduit Diameter</u>	<u>Minimum Radius</u>
2", 2-1/2", 3"	24"
4"	48"
6"	60"

Section 4. Underground Service

- g. Each PVC conduit joint must be permanently assembled using a PVC solvent cement appropriate for the application.
- h. The District accepts smooth-wall coilable polyethylene electrical plastic conduit, also known as high density polyethylene (HDPE) conduit or poly pipe, for directional bore applications only. Poly pipe must meet the following requirements:

1. *District Material Standard 250027.2 High Density Polyethylene Conduit*

Trade Size	Type	Reference Standard
2", 2-1/2", 3"	EPEC Schedule 40	NEMA TC 7
4", 6"	SDR 13.5	ASTM D 3035

3. *Color*

The conduit material shall conform to any one of the following three color alternatives. The order of the District's preference is a., b. and c.

- a. *Solid black compound which is UV stabilized for outdoor use per ASTM D 3350 with three continuous red stripes co-extruded longitudinally into the black compound. The red stripes shall be spaced 120° apart. The red color compound shall be compatible with the black compound, and shall also be UV stabilized. The red stripes shall be a minimum of 1/4" wide.*
 - b. *Solid red compound UV stabilized for outdoor use per ASTM D 3350.*
 - c. *Solid gray compound UV stabilized for outdoor use per ASTM D 3350.*
4. *Identification*
The following permanent identification markings (items a. - e.) are required and shall be provided at intervals of not more than 5 feet. The information may be listed on the conduit in the order preferred by the manufacturer.
- a. *Manufacturer's name or trademark*
 - b. *Trade size (in inches)*
 - c. *Wall thickness, schedule or dimension ratio (DR)*
 - d. *Date code or month and year of manufacture*
 - e. *HDPE*
 - f. *NEMA TC 7 (for conduit sizes 2", 2-1/2", 3") and ASTM D 3035 (for conduit sizes 4" and 6")*
 - g. *Other markings are acceptable if they do not conflict with and cannot be confused with the required markings.*

5. *Couplings*

The customer shall provide mechanical couplings designed for joining PVC conduit to each end of the poly pipe without the use of adhesive compounds. The customer shall install the couplings on the poly pipe only if directed to do so by the District. The poly pipe ends shall be made round to enable proper installation of couplings.

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2. Secondary Conduit Requirements
 - a. Continuous conduit from the customer's service entrance to the District's point of service must be used for all underground secondary service cable installations.
 - b. Schedule 40 PVC shall be used as a minimum.
 - c. Conduits shall stop 3 feet from the point of service as provided by the District.
 - d. The formed deep socket coupling (large flared end) of the conduit may be pointed in either direction.
 - e. A continuous length of knot-free 1/4 inch polypropylene pull rope, or Herculine P1250W 1/2" polyester pull tape, shall be installed by the customer with a 2 foot tail at each end for **all** secondary conduit(s), including future conduit(s), regardless of length of run.
 - f. All bends shall be Schedule 40 PVC long radius (Refer to 4.E.1.f.). Factory made bends, including "pronto" type bends are acceptable. PVC conduit shall not be mechanically heated in the field to form any sweep (bend).
 - g. Conduit couplings (and formed swedge reducers for a 3 inch conduit to a 2-1/2" conduit) are not allowed on an underground service riser above final grade. Per the NEC bends above final grade shall be so made that the conduit will not be damaged and the internal diameter of the conduit will not be effectively reduced. Field bends shall be made only with identified bending equipment.
 - h. A bell end shall not be installed on the end of the conduit, however, a tapered manufactured poly conduit plug (no duct tape) shall be installed on all conduit ends to seal exposed ends of conduits, including future conduit(s), to keep out dirt and foreign objects prior to the District installing the conductors. If requested, the District may furnish the customer with the plug(s).
 - i. The District will extend the conduit into the pedestal or riser pole with a manufactured elbow, rigid, or flex conduit when service is installed.
 - j. The maximum continuous service conduit run shall be 250 feet in length, from the meter base to the point of service.
 - k. Secondary conduit shall be allowed a maximum total aggregate of 270° of total bends including the riser. All bends shall be long radius type (24 inch minimum).
 - l. The conduit size for a 200 amp residential service riser shall be a minimum of 2-1/2 inches for 4/0 - 2/0 triplex.
 - m. The conduit size for a 201 - 400 amp residential service riser shall be a minimum of 3 inches for 350 kcm - 4/0 triplex.
 - n. Refer to Table 1 for conduit fill requirements.

Table 1

**Minimum Conduit Size
Triplex and Quadruplex Secondary Conductors**

600V XLP Insulated Conductors		Triplex		Quadruplex	
Phase	Neutral	One Run	Two Runs	One Run	Two Runs
1/0	2	2-1/2"	3"	3"	3"
4/0	2/0	2-1/2"	3"	3"	4"
350 kcmil	4/0	3"	4"	3"	4"
500 kcmil	250 kcmil	4"	4"	4"	6"
500 kcmil	300 kcmil	4"	4"	4"	6"
500 kcmil	350 kcmil	4"	4"	4"	6"
750 kcmil	400 kcmil	4"	6"	4"	6"
750 kcmil	500 kcmil	4"	6"	4"	6"
1000 kcmil	500 kcmil	4"	6"	4"	6"

Notes:

1. Conduit sizes in Table 1 apply to 2-1/2" and 3" Schedule 40 and 4" and 6" DB-60.
2. Table 1 assumes proper alignment of conduit and proper cable installation where the length of the pull and the number and size of conduit bends are within reasonable limits.
3. The minimum conduit size for a 200 amp residential service riser shall be 2-1/2" for 4/0-2/0 triplex cable.
4. Five inch conduit is unacceptable as it is not a District standard. Customers must use conduit sizes compatible with District standards to enable the District to repair or extend customer-installed conduit in the future, if necessary.

3. Primary Conduits in Trenches

- a. Conduit is required for all primary conductors on private property. All bends shall be long radius fiberglass or rigid steel electrical conduit. A maximum of 180° of bends shall be allowed.

Exception: Naturally formed long sweeps of PVC conduit of 1° to 90° will be allowed.

1.) *All bends shall be Schedule 40 PVC long radius (Refer to 4.E.1.f.). Factory made bends, including "pronto" type bends are acceptable. PVC conduit shall not be mechanically heated in the field to form any sweep (bend).*

2.) *Conduit shall not be placed in the trench to form a long sweep prior to the setup of cement in all joints involved. Cement setup time shall be per the manufacturers recommendations.*

- b. There shall be a 60-inch minimum separation between a primary conduit and a building wall.

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- c. Minimum primary conduit sizes shall be 2 inches for single phase and 4 inches for three phase. Larger backbone feeder conduits shall be specified and required on an individual project design basis.
- d. The customer shall install a continuous length of knot-free 1/4 inch polypropylene pull rope, or Herculine P1250W 1/2" polyester pull tape, (with a 2 foot tail at each end) and a tapered, manufactured poly conduit plug (no duct tape) at each end for **all** primary conduit(s), including future conduit(s), regardless of length of run.

4. Under Buildings

The District will only allow powerlines to be installed under a building when it is absolutely unavoidable and is approved by the District Manager or his designee prior to installation.

- a. The required conduit(s) shall be paralleled by an equal spare conduit(s) from the pole to the vault or between vaults.
- b. Conduits shall not pass through or conflict with the building's foundation walls.
- c. Conduits shall be encased in concrete. Minimum encasement shall be 2 inches thick on all sides of the conduits.

Exception: The concrete encasement requirement can be waived if the building will have a minimum 4 inch thick concrete slab first floor and no basement.

- d. A Hold Harmless Clause will be added to and become part of the power line easement.

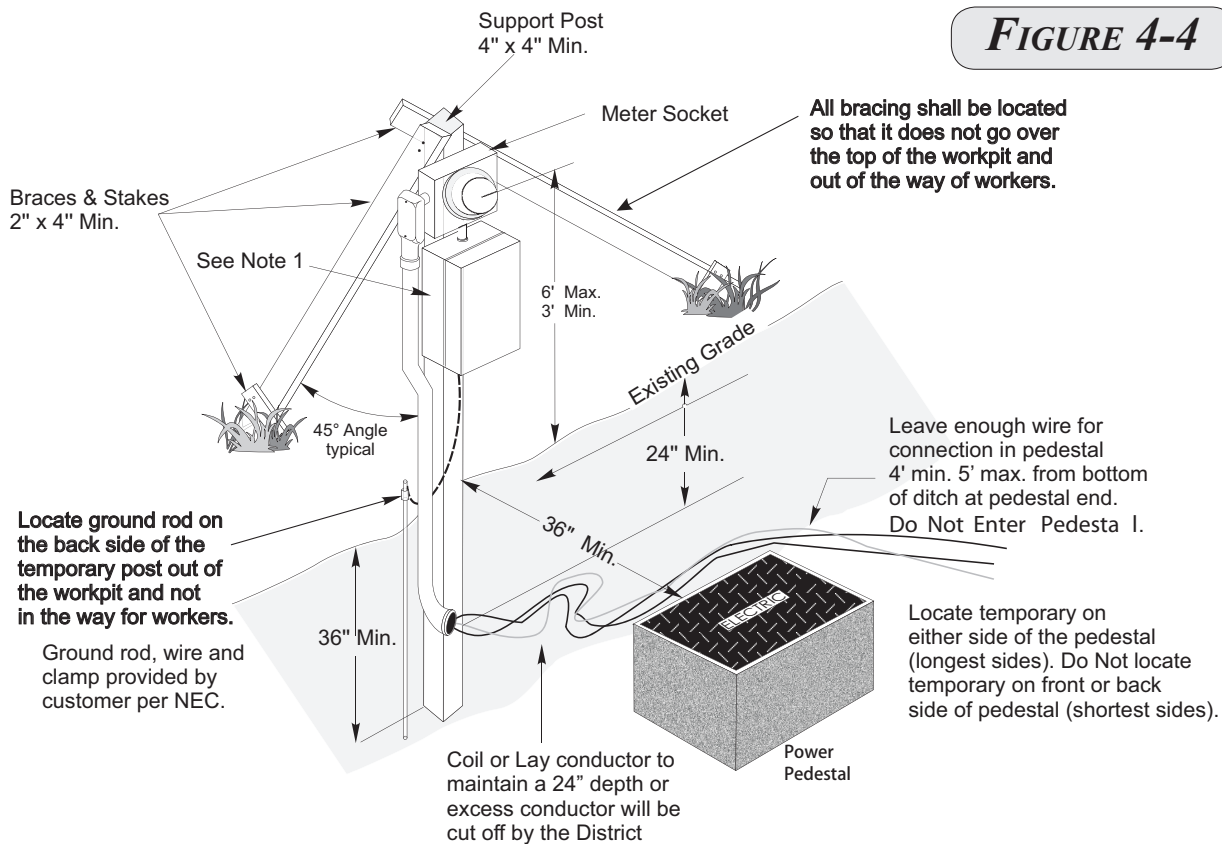
- 5. Conduits terminating in a handhole or vault shall have protective bushings on steel conduits. PVC conduit shall extend 5 inches into the vault and be temporarily sealed with a tapered, manufactured poly conduit plug. The District will install all bell ends on PVC conduit entering vaults, for primary conductors.

F. TEMPORARY CONSTRUCTION SERVICE

- 1. The customer shall furnish and install all required equipment.
- 2. Approved service equipment provided by customer includes support post and bracing, conduit, meter socket, ground rod, conductors, weatherproof disconnect switch and receptacle box.
- 3. The District Point of Connection shall be at the pedestal or transformer for both residential and commercial temporary installations. The customer shall be responsible for voltage drop between the point of connection and the meter.

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4. Temporary post and bracing to be clear of the pedestal and/or transformer with at least a 3 foot minimum distance from the nearest source of power. Refer to Figure 4-4.
5. All temporary installations shall be on private property.
6. The District will not energize service until the installation is approved by the appropriate electrical inspector.
7. The customer shall provide select backfill for the District to use in shading the service conductors after energizing them. Sand shall be required if select backfill material is not available. The select backfill or sand shall provide a 3" bedding below conductors and a minimum cover of 3" above conductors. Refer to Section 1, Page 1-2, Backfill definition. The customer shall backfill the entire temporary service excavation within 24 hours after the District has energized and shaded the service conductors.



Note: It is the responsibility of the developer to maintain the structural integrity of the temporary meter installation. This includes keeping the post and braces upright.

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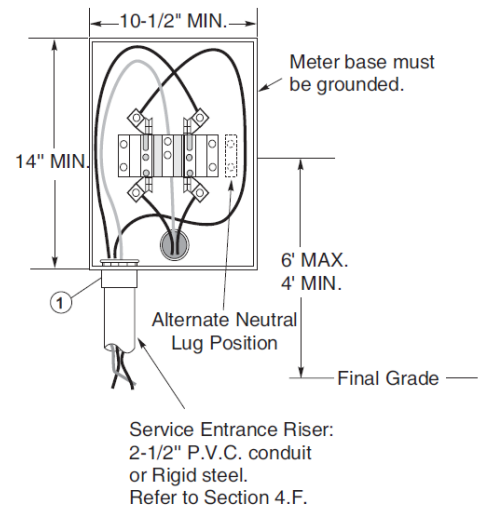
G. RESIDENTIAL SERVICE EQUIPMENT

1. A meter socket with a minimum capacity of 125 amps is required. Sockets shall be listed for use with aluminum/copper conductors. Typically a 200 amp socket with a 2-1/2" service entrance riser is used, refer to Figure 4-5. The customer's wiring entrance into the meter socket shall be offset from the District's so as not to physically block the source lugs. An oxide inhibitor is required on stranded aluminum conductors of #8 awg or larger for terminal connectors (State of Washington Electric Code requirements).

Note: Meter socket may be surface mount or flush mount.

2. For single phase service 201 to 400 amps, a 320 amp meter base with link by-pass is preferred. Refer to Figure 4-7. When current transformer enclosures are used, they shall be installed on the outside of the building and will be those specified in Section 5, Metering requirements.
3. The standard 200 amp service entrance riser shall be a minimum of 2-1/2 inch.
 - a. Schedule 40 PVC is required for normal-duty applications.
 - b. Schedule 80 PVC is required for heavy-duty applications above ground. (hazardous areas, e.g. next to driveways). Refer to section 4.E.d.
4. Secure riser conduit with galvanized pipe straps and lag bolts, a maximum 5 foot spacing.
5. It shall be the customer's responsibility to mount the meter base and riser securely to the building studs or other structural members to provide a solid base for cable pulling.
6. Service riser conduit shall not enter at the center of the bottom of the meter-base but shall be offset to one side.
7. All secondary main and secondary service cable installations shall be installed in continuous Schedule 40 PVC conduit.

Typical 200 Amp Underground Meter Socket



NOTES:

1. Requires double lock nuts and protective bushing on rigid steel conduit.
P.V.C. plastic conduit requires threaded terminal coupling, one lock nut and protective bushing.
2. Underground service sockets must have a minimum enclosure depth of four inches (4").

FIGURE 4-5

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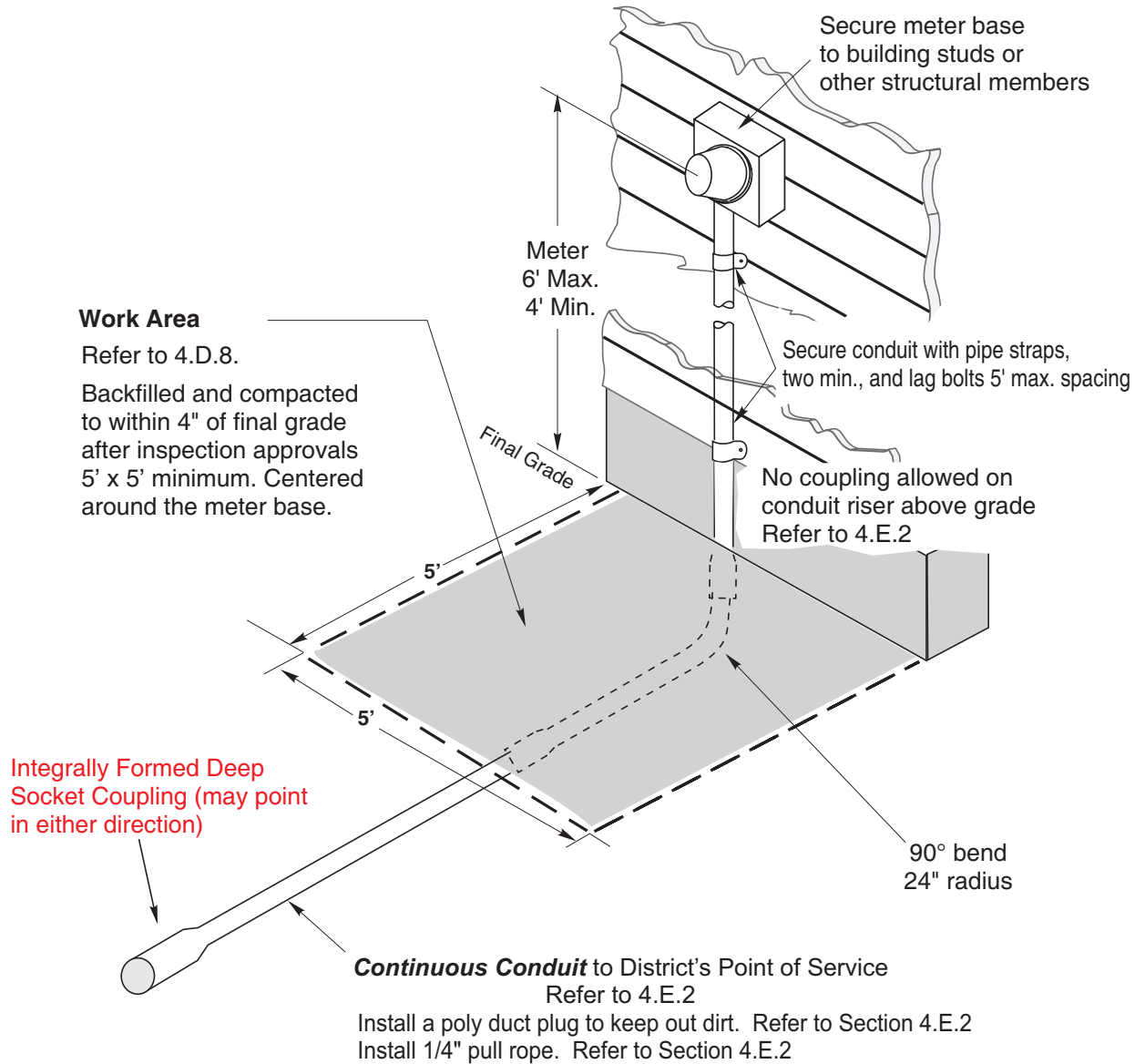
8. All bends shall be Schedule 40 PVC long radius (Refer to 4.E.1.f.). Factory made bends, including "pronto" type bends are acceptable. PVC conduit shall not be mechanically heated in the field to form any sweep (bend).
9. Secondary conduit shall be allowed a maximum total aggregate of 270° of total bends including the riser. All bends shall be long radius type (24 inch minimum).
10. The maximum a continuous service conduit run shall be 250 feet in length, from the meter base to the point of service. Secondary conduit shall be allowed a maximum total aggregate of 270° of total bends including the riser. All bends shall be long radius (Refer to 4.E.1.f.).
12. The customer shall trench all the way to the District pedestal.
13. Install ground per NEC Requirements.

Note: *The District must inspect and approve all conduit installations prior to backfilling.*

Section 4. Underground Service

TYPICAL 200 AMP UNDERGROUND RISER, 2-1/2" MINIMUM

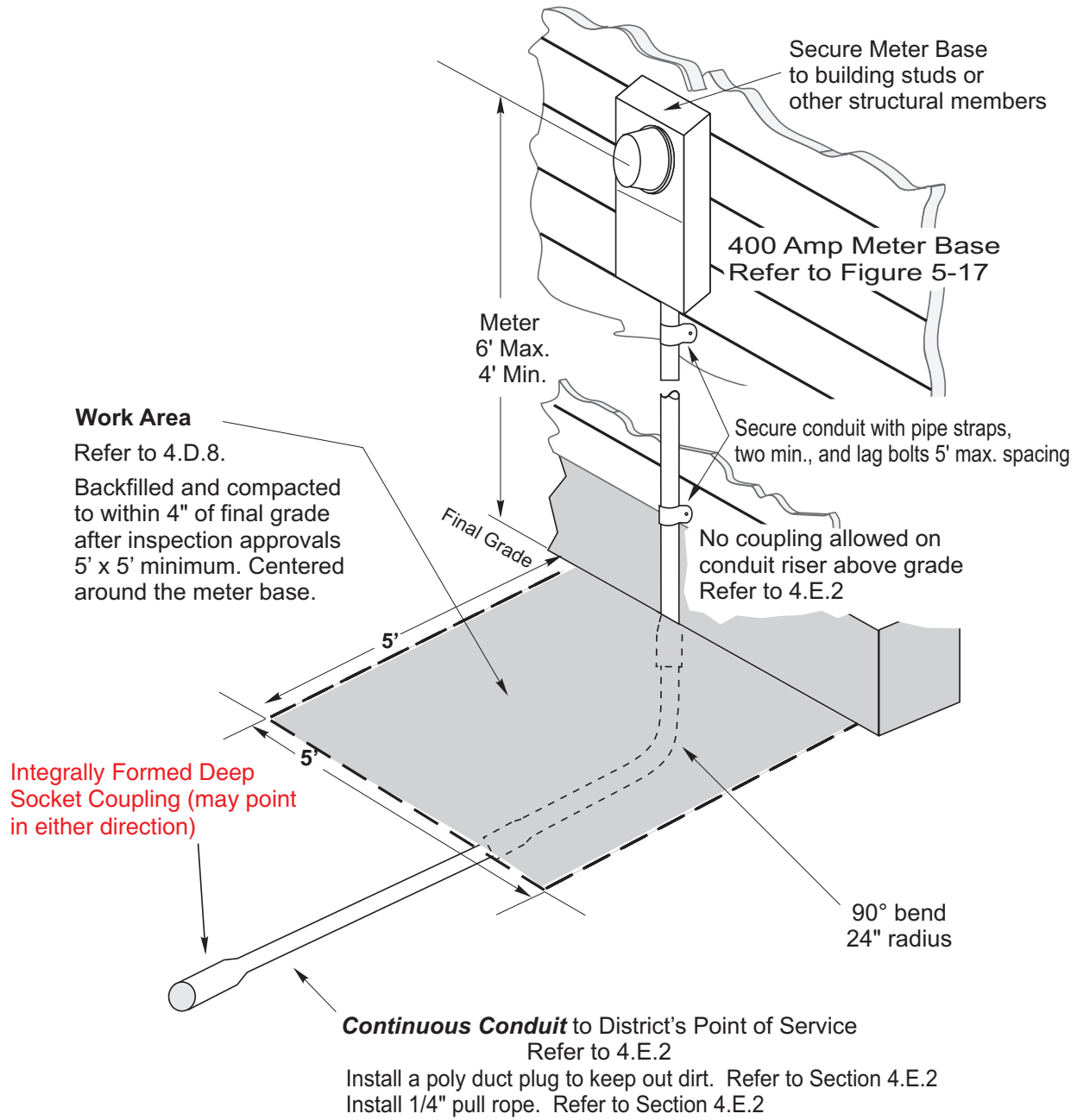
FIGURE 4-6



Section 4. Underground Service

TYPICAL 400 AMP SELF-CONTAINED METER SOCKET FOR USE WITH A CLASS 320 METER

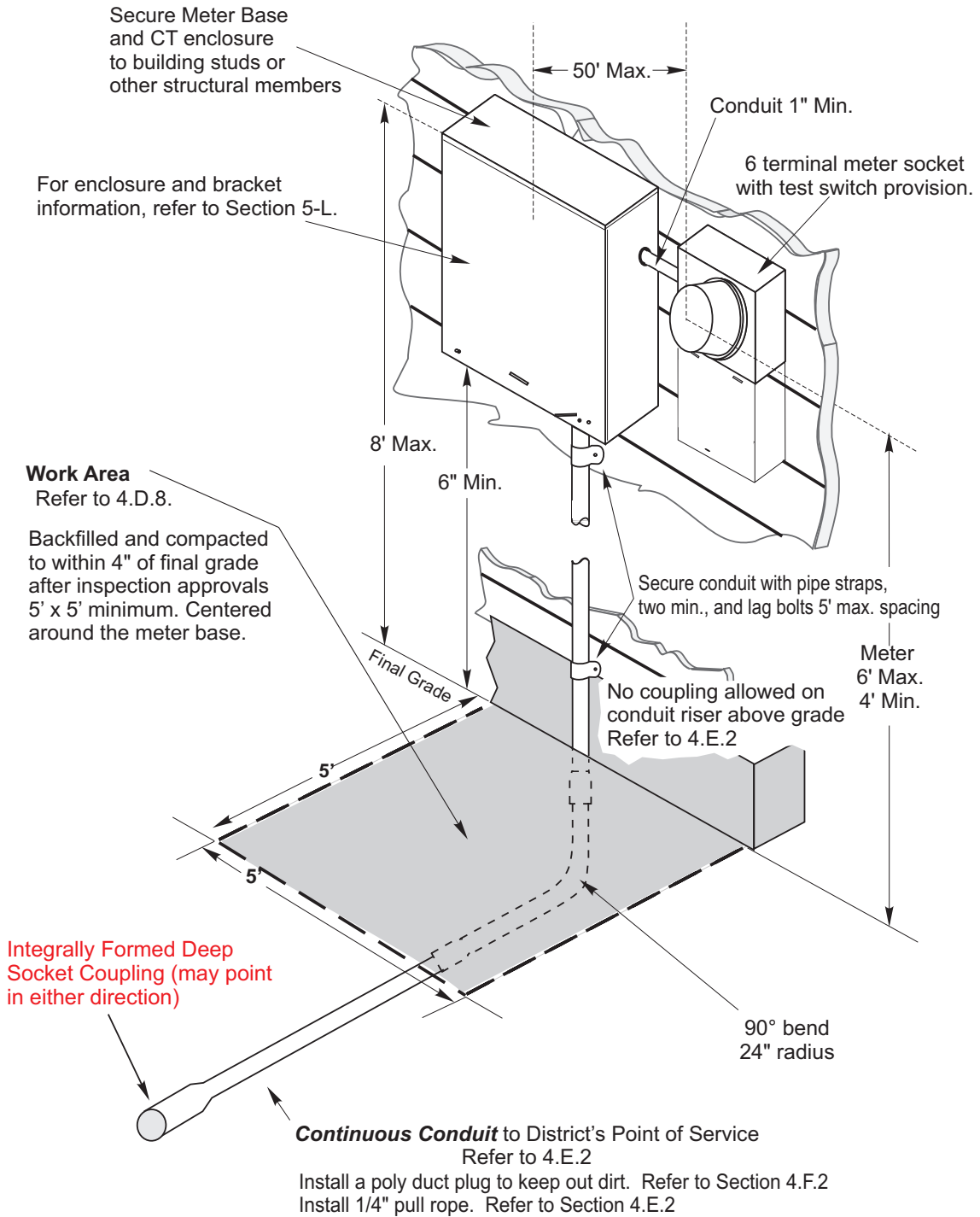
FIGURE 4-7



Section 4. Underground Service

TYPICAL 201 - 400 AMP CURRENT TRANSFORMER ENCLOSURE, 3" SERVICE RISER MINIMUM

FIGURE 4-8

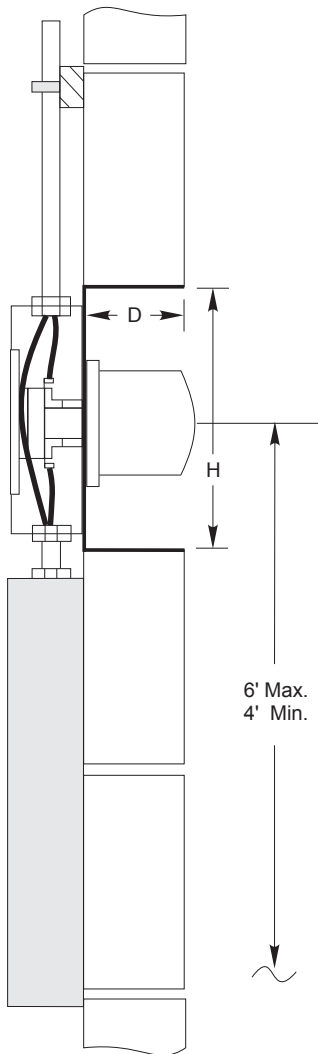


Section 4. Underground Service

TYPICAL CURRENT TRANSFORMER ENCLOSURE, 3" SERVICE RISER MINIMUM

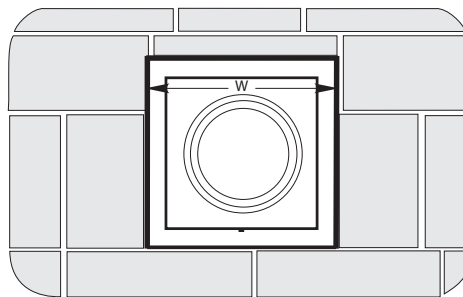
FIGURE 4-9

All meters shall be readily removable i.e., not plastered in or built in, and if installed in a recessed opening, the socket shall be trough type. The meter recessed opening shall be as follows with the socket centered therein.



"Ring type meter base required."

Doors over meters are not allowed.



Phase	Metered Voltage	H Height	W Width	D Depth in Front of Socket
Single	240	16 Inch	16 Inch	7 Inch
Poly	240	22 Inch	16 Inch	11 Inch
Poly or Max Demand	480	22 Inch	24 Inch	11 Inch

Section 4. Underground Service

H. METER PEDESTAL - 200 AMP & 400 AMP METER SOCKET

1. A factory assembled pedestal must be UL listed and approved or District approved and accepted. It must be set a minimum of 2' in the ground with a concrete pad of 2' x 2' x 3-1/2" poured in place around the pedestal for support. Refer to Fig 4-12, Exhibit A.
2. An on-the-job assembled meter pedestal, which is composed of listed or approved meter socket and conduit or raceways, must be supported by one of several methods. The preferred installation is by using two pieces of Unistrut channel embedded in a 12" diameter poured concrete footing 36" deep. Minimum Unistrut channel acceptable shall be hot dip galvanized 12 gauge steel 1-5/8" x 1-5/8", or District approved equivalent. Also acceptable is using two pieces of 2" hot dip galvanized steel angle iron or 2" hot dip galvanized rigid steel pipe with a 2" hot dip galvanized steel cap embedded in a 12" diameter poured concrete footing 36" deep. The concrete footing should not encase the service riser conduits. Refer to Fig 4-12, Exhibit B and Fig 4-12, Exhibit C. Alternately, the District will accept a fully pressure treated 6" x 6" x 10' wood post set a minimum of 36" deep, however, it is the least desired method since it may not last as long as the other methods. The wood post shall not be encased in concrete, but shall be backfilled with gravel to facilitate drainage.
3. The customer shall install the poured concrete footing, backfill and compact prior to inspection approval and service installation.
4. When the District installs or is to own the service, the conduit shall be 2-1/2" minimum for 200 amp and 3" minimum for 400 amp.
5. Secondary meter pedestals may be used provided they meet the minimum requirements of Section 5. Refer to Figures 4-10 through 4-12.
6. If a disconnect is required per the NEC, the disconnect shall be located on the customer side of the meter.

Section 4. Underground Service

TYPICAL METER PEDESTAL FOR A 201 - 400 AMP SELF-CONTAINED METER SOCKET FOR USE WITH A CLASS 320 METER, RISER 3" MINIMUM

Preferred Construction:

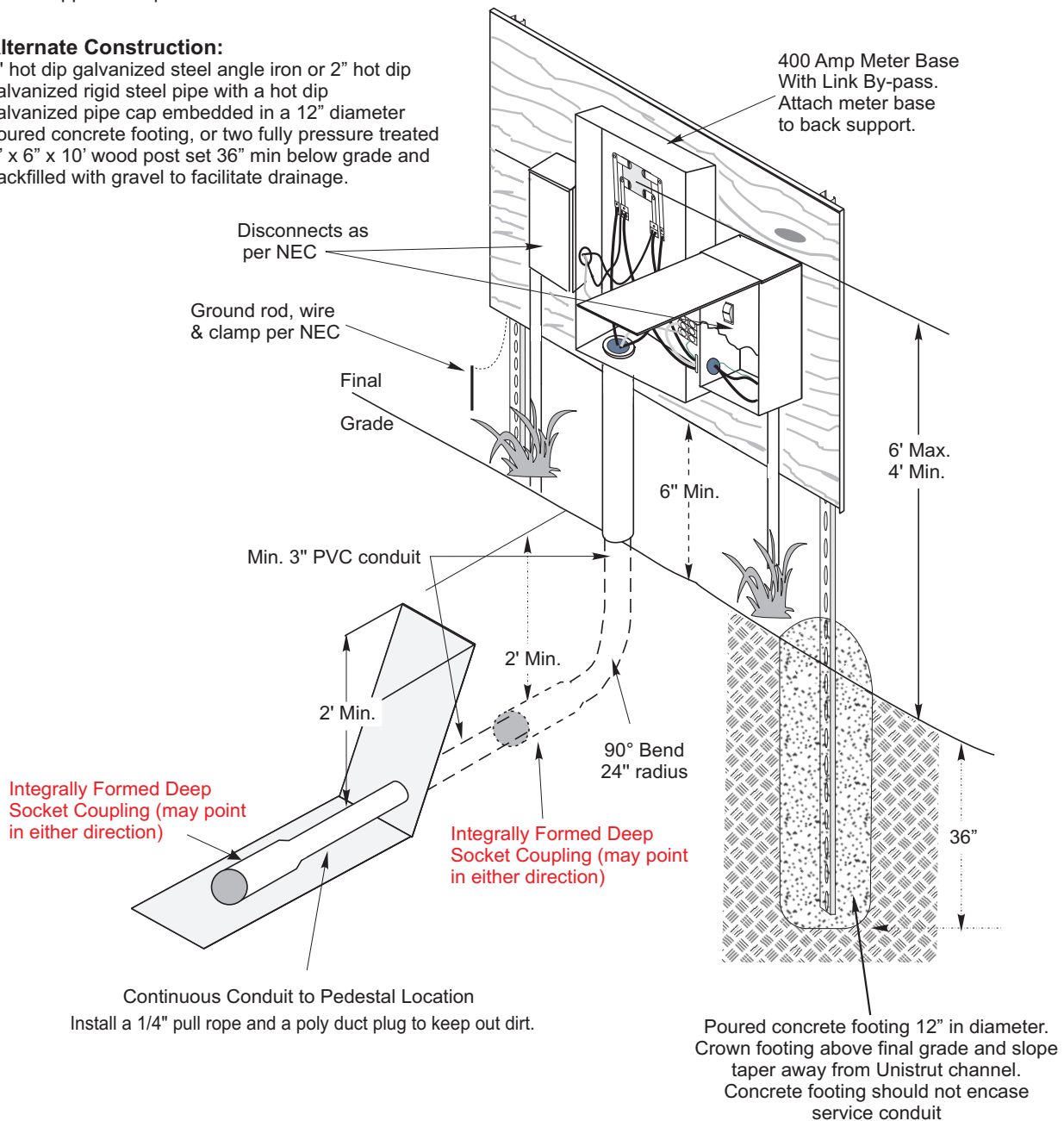
Bolt service entrance equipment to *Unistrut channels with two pieces of *Unistrut crossmembers, two 2" x 6" fully pressure treated crossbeams or 3/4" min. exterior grade plywood. Extend each *Unistrut leg 36" min. below grade and embed each leg in a 12" diameter poured concrete footing. The concrete should not encase the service entrance conduit.

*Minimum Unistrut channel acceptable shall be hot dip galvanized 12 gauge steel 1-5/8" x 1-5/8" or District approved equivalent.

Alternate Construction:

2" hot dip galvanized steel angle iron or 2" hot dip galvanized rigid steel pipe with a hot dip galvanized pipe cap embedded in a 12" diameter poured concrete footing, or two fully pressure treated 6" x 6" x 10' wood post set 36" min below grade and backfilled with gravel to facilitate drainage.

FIGURE 4-10



Section 4. Underground Service

TYPICAL METER PEDESTAL FOR A 201 - 400 AMP CURRENT TRANSFORMER ENCLOSURE INSTALLATION, RISER 3" MINIMUM

FIGURE 4-11

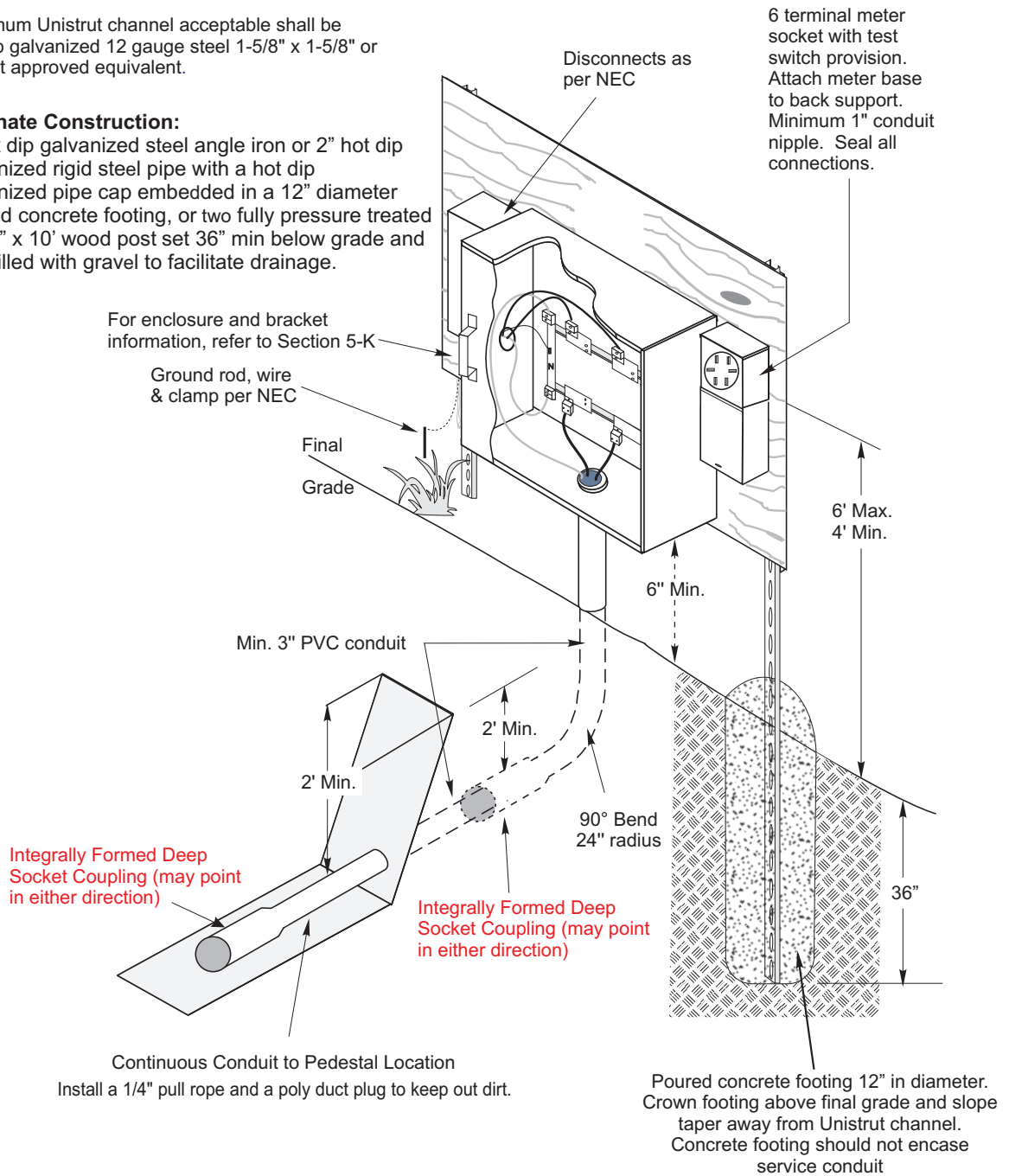
Preferred Construction:

Bolt service entrance equipment to *Unistrut channels with two pieces of *Unistrut crossmembers, two 2" x 6" fully pressure treated crossbeams or 3/4" min. exterior grade plywood. Extend each *Unistrut leg 36" min. below grade and embed each leg in a 12" diameter poured concrete footing. The concrete should not encase the service entrance conduit.

*Minimum Unistrut channel acceptable shall be hot dip galvanized 12 gauge steel 1-5/8" x 1-5/8" or District approved equivalent.

Alternate Construction:

2" hot dip galvanized steel angle iron or 2" hot dip galvanized rigid steel pipe with a hot dip galvanized pipe cap embedded in a 12" diameter poured concrete footing, or two fully pressure treated 6" x 6" x 10' wood post set 36" min below grade and backfilled with gravel to facilitate drainage.



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TYPICAL METER PEDESTAL FOR A 200 AMP & 400 AMP CLASS 320 METER

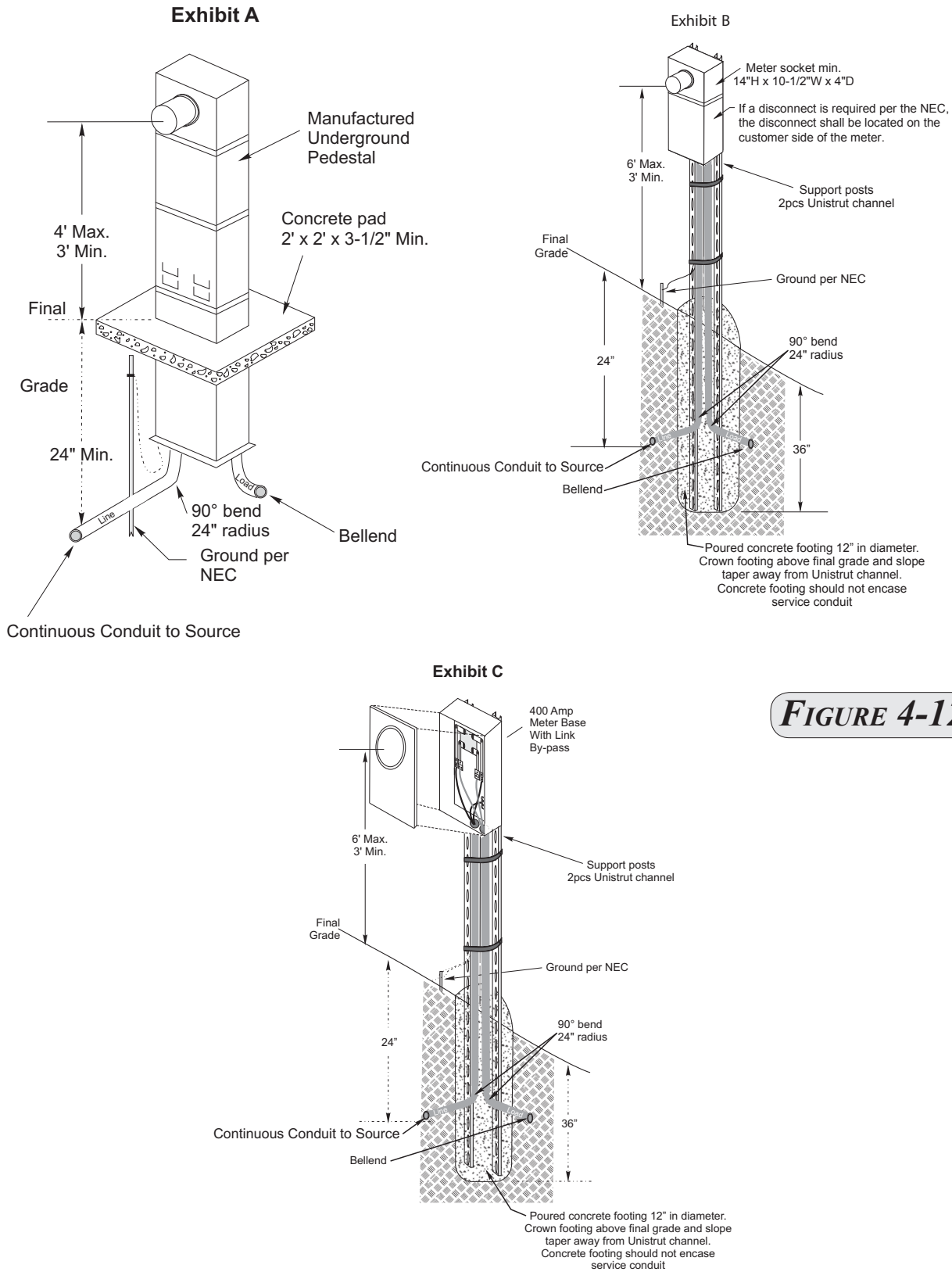


FIGURE 4-12

Section 4. Underground Service

I. CONVERSIONS, O/H TO U/G

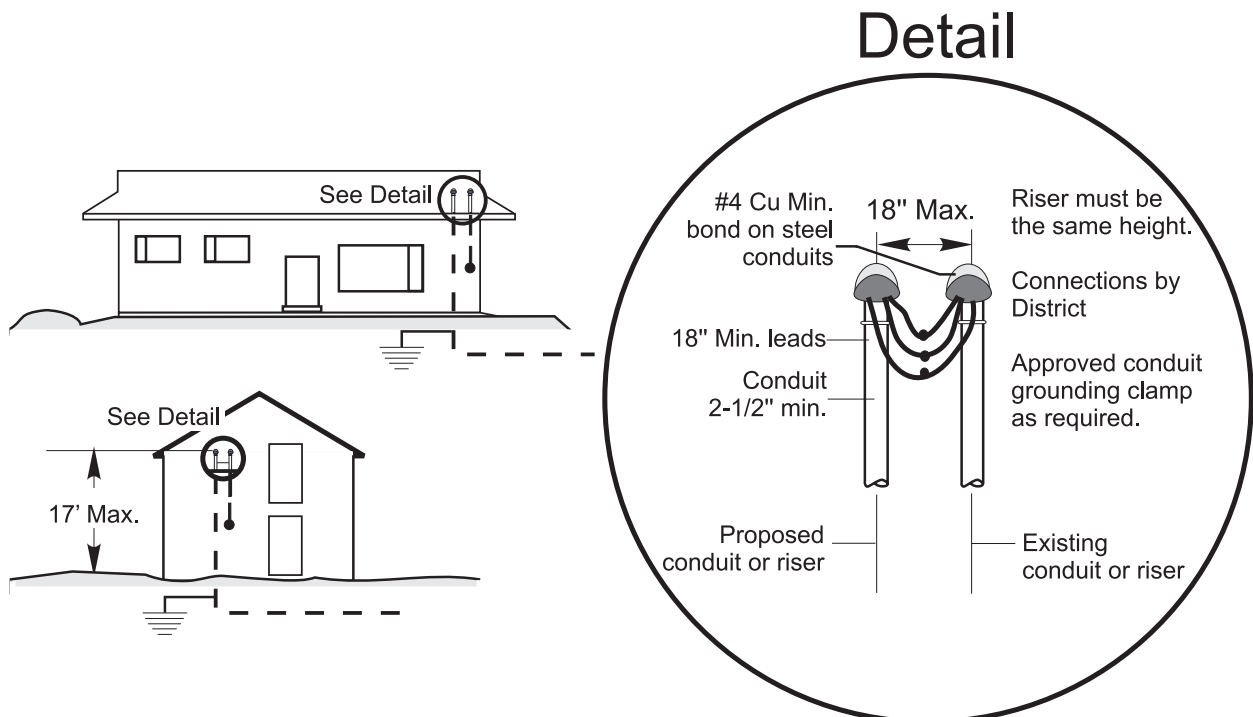
1. In general, overhead to underground service conversions require individual attention on specific requirements.

Note: The NEC requires that, where necessary, existing breakers, switches, panels, etc. must be upgraded to present requirements. Contact the State of Washington Department of Labor and Industries or the appropriate governmental agency for specifics.

2. The underground service equipment installation shall comply with District requirements for a new service.
 - a. An underground riser conduit may be extended up to match the height of the existing overhead mast. This new riser must be within 18 inches of the existing mast. Refer to Figure 4-13.

TYPICAL SERVICE RISER CONVERSION

FIGURE 4-13



Section 4. Underground Service

- b. Existing 200 amp surface-mounted meter bases, may be converted by installing an underground service riser conduit into the bottom of the meter base for installation of new underground service conductors. Refer to Figure 4-14.

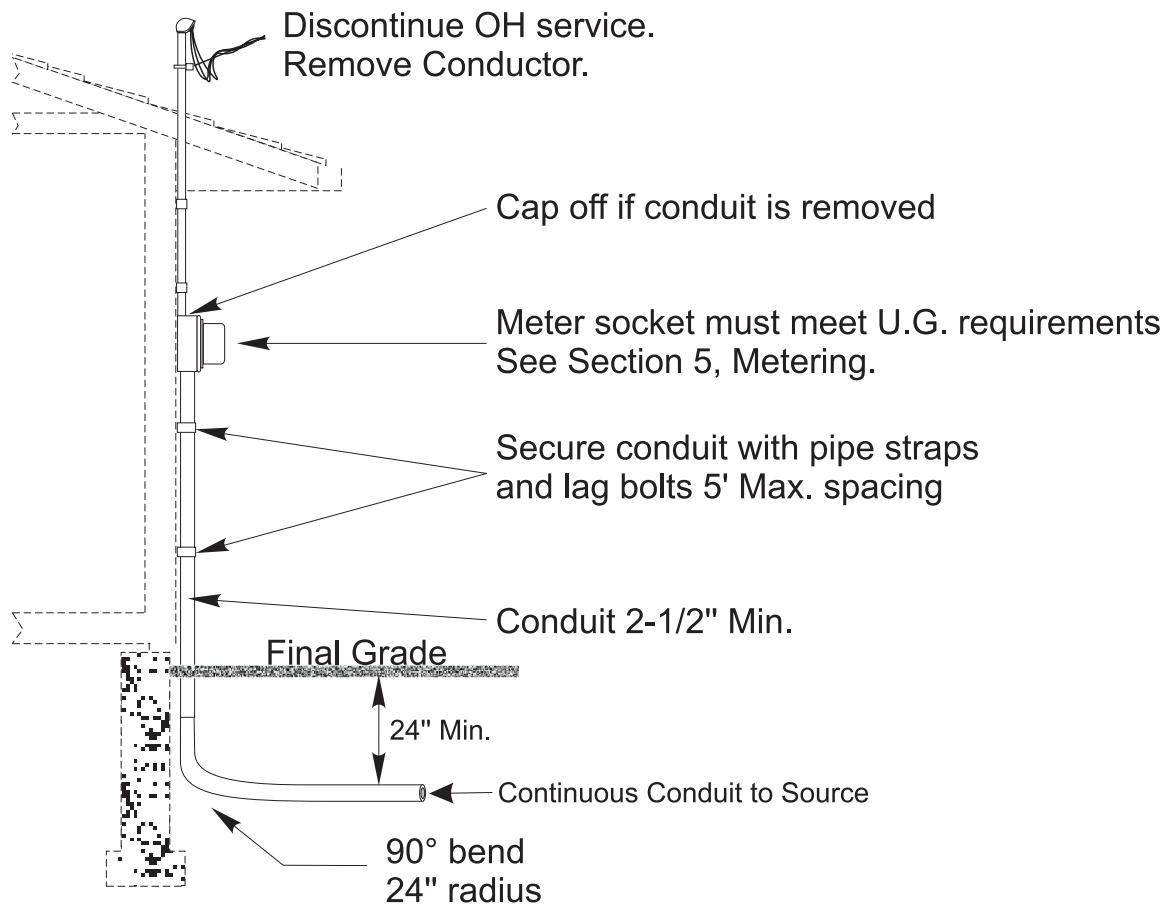
Exceptions: The following conditions must apply:

- 1) Conduit must enter to one side of the bottom, not the center.
- 2) Meter base must be a minimum size of 10-1/2" wide, 14" tall and 4" deep.

TYPICAL METER BASE CONVERSION

Coordinate with the District

FIGURE 4-14



Section 4. Underground Service

J. COMMERCIAL/APARTMENT SECONDARY PEDESTALS

1. The District shall install, own and maintain a pedestal on private property (normally at a property corner) as a source of secondary service to commercial or apartment buildings.
2. The customer may be required to install an additional vault for secondaries to terminate in non-standard installations.
3. The customer shall install, own and maintain all secondary service conductors on private property.
4. The District will make all secondary connections in the pedestal, provided that the customer-installed conductors are compatible with the District's stock connectors.
5. A maximum number of secondary connections per phase shall be coordinated with the District.
6. Allowable conductor sizes shall be:
Aluminum or Copper: #2 to 750 kcm
7. If, through variance, other conductor sizes are allowed the customer shall be responsible for providing the required connectors, their installation and any future maintenance. Refer to Section 2, Variance Application.
8. The District will determine when the quantity and/or size of the secondary service conductors exceeds the practicality of a pedestal-type installation.

K. PADMOUNT TRANSFORMER EQUIPMENT, CLEARANCE

1. The customer shall be responsible for maintaining access to and clearance around all District-Owned padmount equipment. Refer to Section 2-O for access and Figure 4-15 for clearances.
2. Guard posts shall be furnished and installed by the customer when padmount equipment is located within an area of vehicular traffic (WAC 296-46B-450). The District shall determine the number and location of all guard posts. Refer to Fig. 4-16.

PADMOUNT TRANSFORMER EQUIPMENT, CLEARANCE

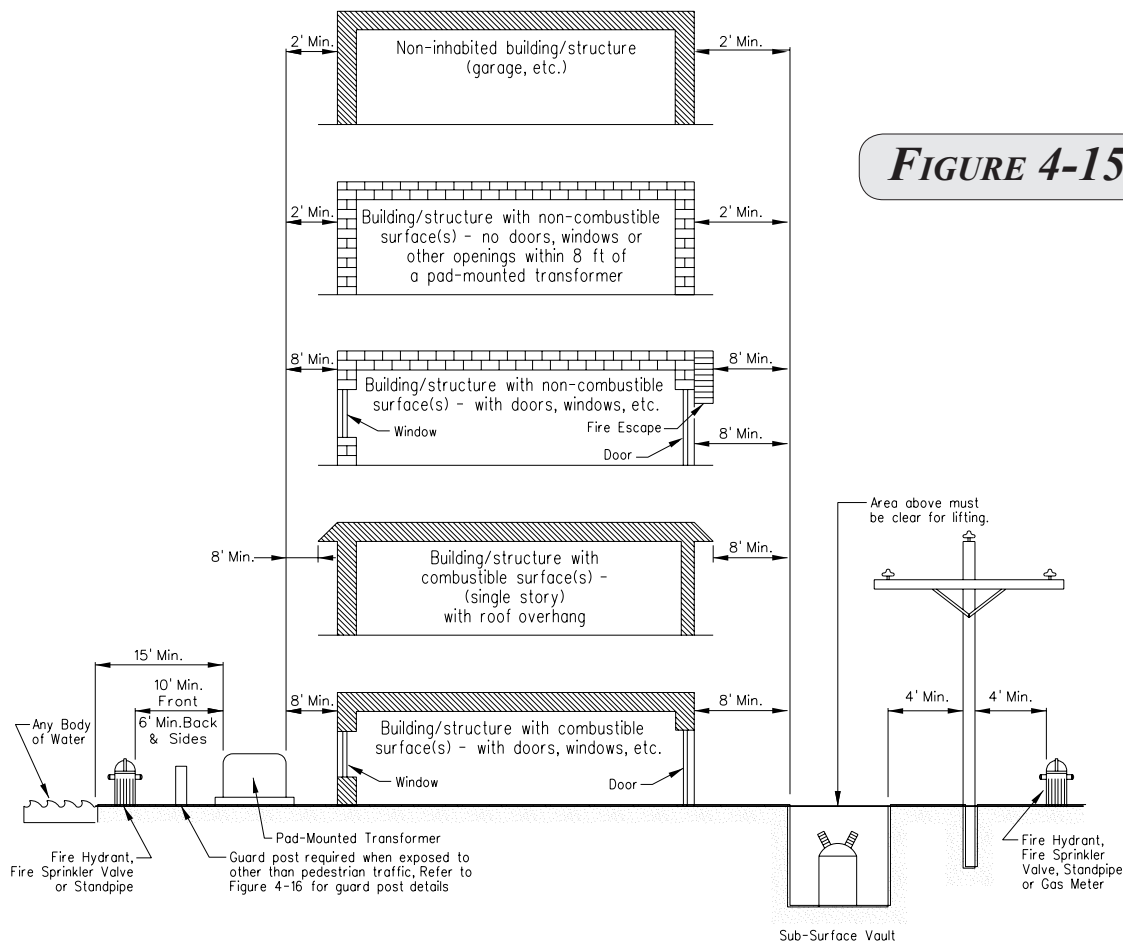
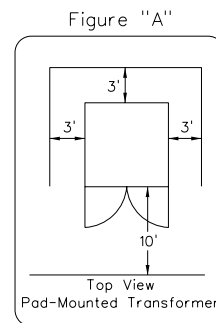


FIGURE 4-15

Notes:

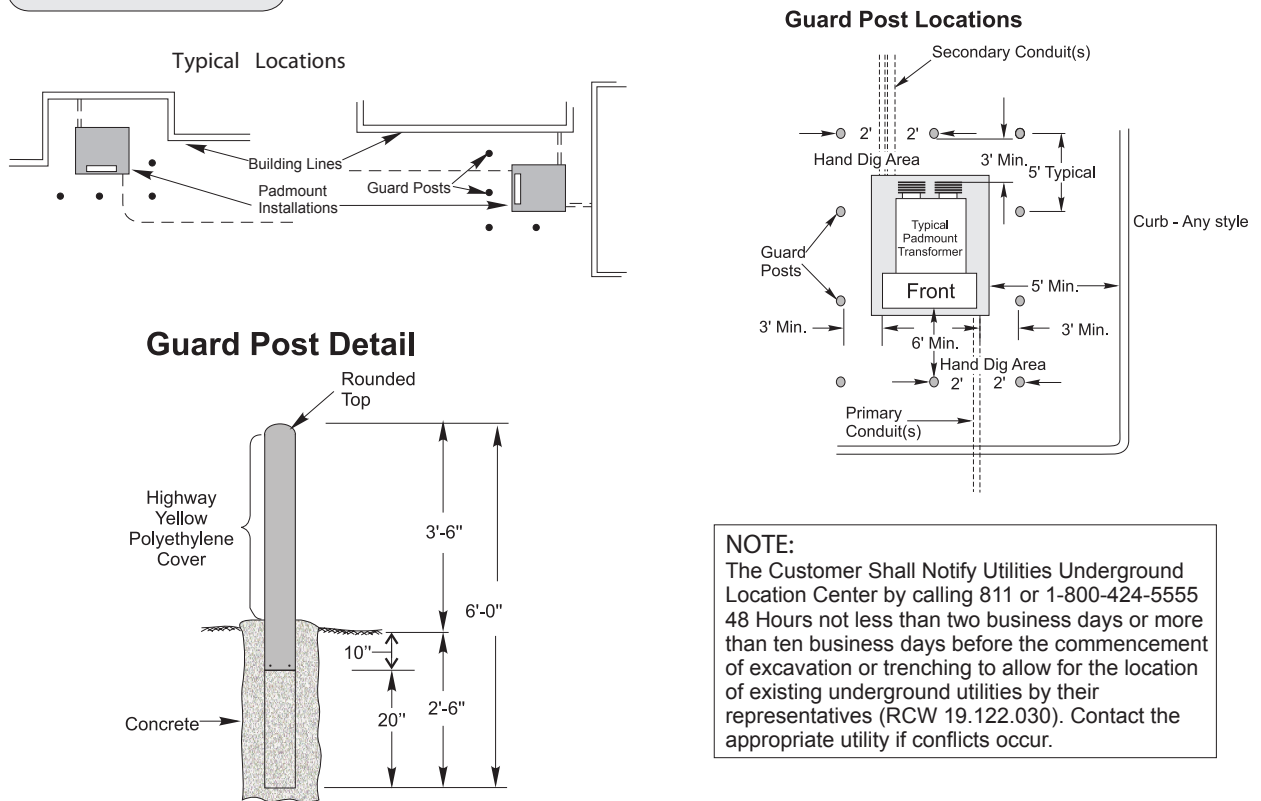
1. All measurements are from the nearest metal part of the transformer.
2. For variations and reduced clearance options, consult Engineering Standards.
3. References: WAC 296-46B-450 and NESC 127.
4. Some examples of non-combustible building/structure surfaces are brick, concrete, steel, stone and fiber-cement siding material that complies with ASTM E136, such as Hardiplank®.
5. A 3 ft minimum clearance is required between transformers and natural gas connections, valves, gauges or meters.
6. Transformers shall not be located within 20 ft of fuel storage tanks or fueling points for highly combustible liquids or gases (e.g., service station gasoline pumps and tanks, propane bulk dispensing tanks, etc.).
7. Transformers shall not be located within 10 ft of self-contained emergency diesel generators, or diesel fuel storage tanks or fueling points for emergency generators.
8. Enclosures for total underground mineral oil filled transformers, e.g., sub-surface vaults, must not be located within 8 ft of a doorway, operable window, stairway or fire escape. Adequate space must be maintained above the enclosure so that a boom may be used to lift the transformer from the enclosure.
9. Location of pad-mounted equipment shall not be more than 15 ft from access road or driveway.
10. Finish grade at the transformer location must be such that leaking oil will flow away from the building.
11. A clear and level working area shall be maintained in front of the transformer.
12. Refer to Figure "A" for minimum working space requirements around pad-mounted transformers located in areas with obstructions such as fences, walls, trees and shrubs. Landscaping which does not interfere with the installation, removal, operation and maintenance of the transformer may be allowed within the working space.



Section 4. Underground Service

FIGURE 4-16

Transformer Guard Post Locations



Guard posts are required by the State of Washington Electrical Inspection Division (WAC 296-46B-450) when transformers are located where exposed to vehicular traffic or other mobile type machinery.

Guard posts shall be furnished, installed and maintained by the contractor/customer at no expense to the District. The District shall determine the number and establish the locations of all guard posts. The exposed portion of the post shall be painted highway yellow or have a highway yellow thermoplastic polyethylene bumper post sleeve securely installed over the post.

Two types of guard posts are accepted by the District. One type is a 6" x 6'0" steel pipe set in and filled with concrete. Another type is a 6" x 6'0" or a 9" x 6'0" precast steel reinforced concrete post set in concrete.

Reinforced concrete posts can be purchased from Cuz Concrete, Arlington, WA or Utility Vault Company, Auburn, WA.

Bumper post sleeves can be purchased from Ideal Shield, 888-308-7290, or online at www.idealshield.com.

Refer to figure 4-16 above for clearances to padmount equipment.

Section 4. Underground Service

L. CONNECTION TO PADMOUNT TRANSFORMERS, SECONDARY CABINETS, SECONDARY HANDHOLES OR SECONDARY PEDESTALS:

1. Under no circumstance shall the Customer penetrate the wall of an existing energized vault with either conduit or conductor. Only District personnel are authorized to penetrate into an existing energized vault.
2. The District shall make all primary and secondary connections on District owned transformers, secondary cabinets or secondary pedestals.
3. For commercial installations the customer shall install, own and maintain all secondary conductors from the service location to the secondary termination handhole. A minimum length of 15 feet of secondary cables per leg for vault sizes 4'8" x 4'8" or a minimum length of 25 feet of secondary cables per leg for vault sizes larger than 4'8" x 4'8" shall be provided inside the vault, sealed and identified.

For a Single or Duplex family residence, after the customer provides the conduit(s), trench and backfilling the District will own and maintain the secondary service conductors. In some installations these conductors may be provided and installed by the District or by the customer.

4. The District's engineer shall determine if J-boxes are required for a particular job. If J-boxes are needed, in addition to the vault requirements identified below, the customer shall provide a 4'8" square x 3'6" deep vault with a 4'8" square diamond plate lid to house the J-boxes.
5. Acceptable conductor sizes:

Commercial:	Aluminum or Copper:	#2 to 750 kcmil
Residential:	Aluminum Triplex:	1/0, 4/0 AWG or 350 kcmil

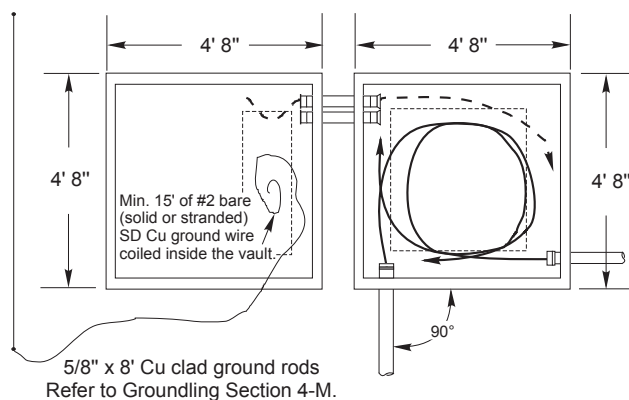
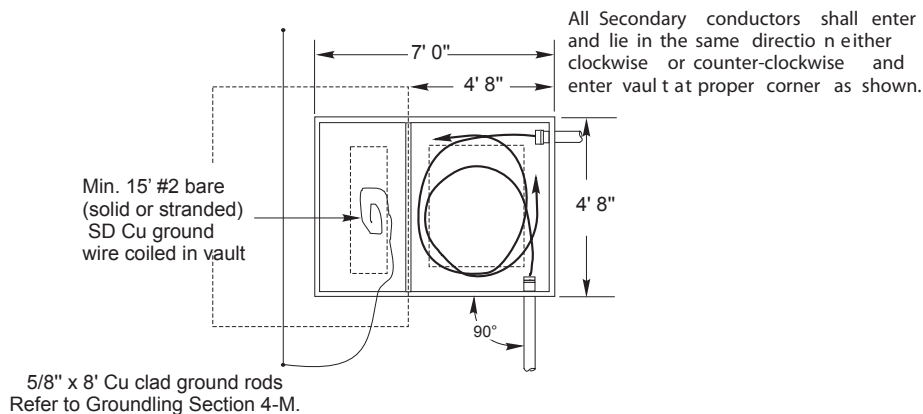
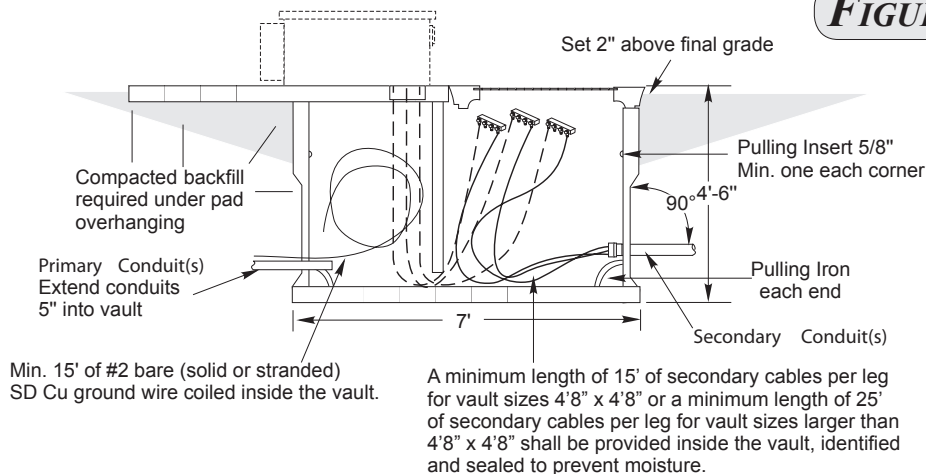
6. Acceptable conductor type:
600V XLP Type USE-2: Cable with ruggedized insulation is not acceptable
7. In certain cases it may be acceptable to connect single customer-owned service conductors directly to the low voltage terminals of a padmount transformer. Consult with the District's engineer to determine allowable cases. The vault option(s) and maximum number of secondary connections allowed per leg shall be as follows in Table 2 and Table 3. Consult with the District's engineer for acceptable vault option(s) prior to proceeding.
8. For commercial installations the customer shall install, own and maintain a secondary handhole adjacent to the transformer vault. The District will install conductors from the transformer to the secondary handhole and make all of the connections in that handhole.
9. For residential installations the secondary conductors from the transformer vault to the secondary terminations pedestal shall be installed, owned and maintained by the District.

Section 4. Underground Service

10. The customer shall furnish and install the required conduit(s) between the transformer vault and secondary handhole(s).
11. All secondary conductors shall enter and lie in the secondary handhole(s) or compartment in the same direction, either clockwise or counter-clockwise without conflicting with each. Refer to Figure 4-17 for typical samples.

SECONDARY TRAINING IN VAULTS

FIGURE 4-17

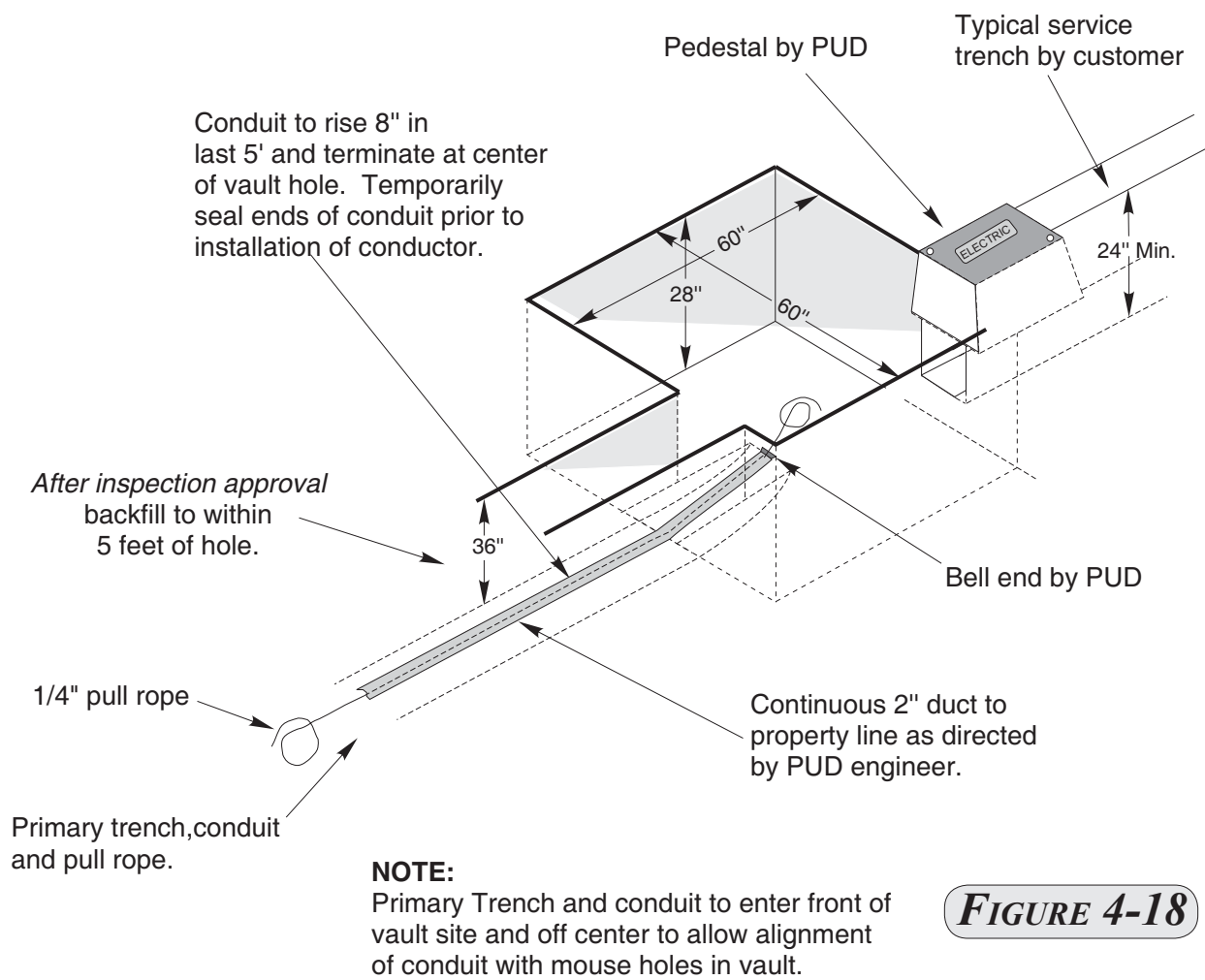


Section 4. Underground Service

M. CONCRETE VAULTS, PADS AND HANDHOLES

When a vault is installed in areas where it may be exposed to pedestrian foot traffic a slip-resistant SlipNot type coating is required on the vault cover.

1. Residential customer vault site preparation.
 - a. The customer shall prepare the vault site in accordance with Figure 4-18.
 - b. The District will provide and install the vault, ground rods, ground wire and secondary service pedestal.
 - c. The vault hole shall be plumb, level and square.
 - d. The customer shall install the primary and the secondary conduits and pull ropes. The customer shall seal all ends with tapered, manufactured poly conduit plugs to keep out dirt prior to the installation of conductors.
 - e. After inspection and approval, the customer shall backfill the trenches prior to the installation of the electrical system.



Section 4. Underground Service

2. Commercial Vault Installation Requirements
 - a. Specific job requirements will be determined by the District's engineer.
 - b. There shall be no express circuits allowed through vaults.
 - c. All vaults shall be designed and installed in a manner such that water from the vault will drain into an acceptable outlet. Water shall be all that is drained or pumped from vaults into acceptable outlets. Unacceptable outlets are salmon streams and storm drains. Vault drains shall not connect to storm drains, nor shall storm drains empty into a vault.
 - d. All vaults shall be installed to allow for the following minimum safe working clearances:
 - *Padmount Transformer Vault: 10' in front and 3' on the rear or either side.*
 - *Secondary Cabinet Vault: 4' on all sides.*
 - e. All transformer and switch cabinet vaults shall be set so that their lids are 2 inches above final grade. Switching vaults and secondary handholes may be set at final grade.
 - f. Two ground rods with 1/0 stranded bare copper wire installed a minimum of 6' apart are required at all secondary cabinet vaults.
 - g. Two ground rods shall be required if installation is at the end of a lateral. They shall be installed a minimum of 6 feet apart.
 - h. Fifteen feet of copper ground wire (solid or stranded) shall be left coiled inside the vault.
 - i. All secondary conductors entering the handhole shall be protected at minimum by a piece of PVC conduit. This conduit shall be permanently sealed around its exterior and interior with cement grout.
 - j. All secondary conductors shall be labeled as to what they serve.
 - k. All secondary conductors shall extend a minimum length of 15 feet of secondary conductor per leg for vault sizes 4'8" x 4'8" or a minimum length of 25 feet of secondary conductor per leg for vault sizes larger than 4'8" x 4'8" shall be provided inside the vault, identified and sealed to prevent moisture.
 - l. Conduit shall enter the vault perpendicular to the vault walls which they are entering, and in a manner that ensures that all conductors can be trained to lay in the same direction (clockwise or counter-clockwise) and also in such a way as not to interfere with other conduit entrances. Refer to Figure. 4-17.
 - m. Conduit shall not enter at same corners of a vault.
 - n. Typically, conduit for primary conductor shall use lower knockout only, conduit for secondary conductors shall use upper knockout only, however, multiple conduit requirements shall use both upper and lower knockouts.

Section 4. Underground Service

- o. Conduit for secondary jumpers shall be installed by the contractor between the transformer vault and the secondary handhole. The size and quantity will be determined by the District's engineer.
- p. Cement grout is required to seal all holes and around all conduits. Refer to Figure 4-19.
- q. Padmount cover specifications vary with the size of the padmount transformer or switch cabinet to be used. The District's engineer will specify cover size, access hole size and location.
- r. When a handhole is used as a primary switching vault, a lid with a diamond plate access cover is required. Access opening size will be specified by the District's engineer.
- s. Vaults and covers shall be located and oriented so that proper door clearance from buildings/obstructions may be maintained. Refer to Section 4-K.
- t. Split vaults with removable divider walls shall have unistrut channel installed ($9" \pm 1"$ from top of wall to center line of channel) on each wall and on one side of the removable divider wall as shown in Figures 4-25, 4-26. In addition, removable divider wall shall have two (2) 5/8" diameter lifting inserts. The removable divider wall will be positioned so that the side with the unistrut channel will be installed facing the 41" section of the vault.
- u. Bell ends are required on all commercial secondary conduits. The length of the conduit shall protrude into the vault just long enough to accommodate the bell end. The District will install the bell ends on the primary conduits.
- v. Pulling irons, one at each corner, are optional for secondary vaults.
- w. Pulling irons, one at each corner, are acceptable but not required in primary vaults unless specified by the District for a particular situation. Refer to Figure 4-19.

Exception: Pulling facilities are not required on J-Box or Open Bottom vaults. Refer to Figure 4-22 & Figure 4-23.

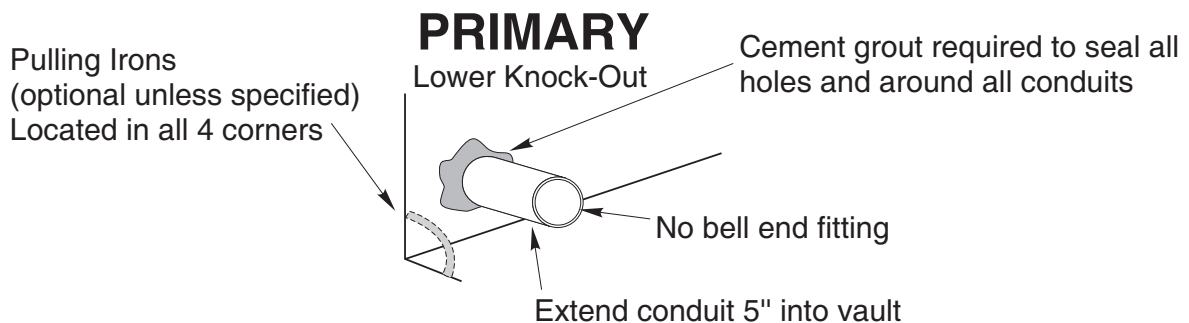
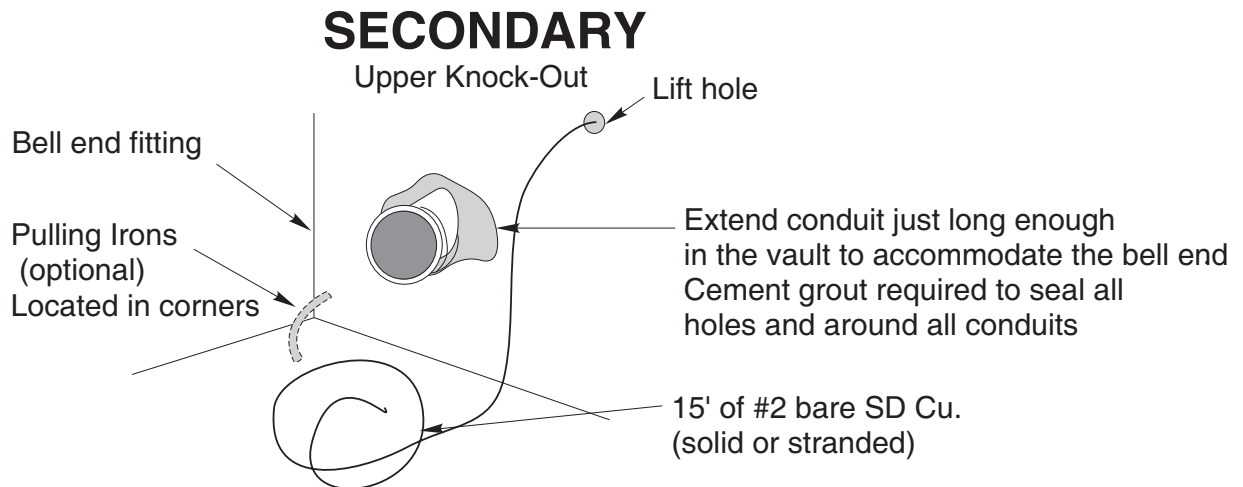
3. Identification

To identify their function, the word POWER, or ELECTRIC, shall be neatly and permanently marked in plain uppercase letters on the covers of subsurface electrical vaults and handholes that do not have pad-mounted equipment mounted on them. Letters shall be a minimum of 2" and a maximum of 3" in height. Letters shall be inscribed in the concrete cover or embossed on the metal door (where applicable). The identifying word shall be squarely in alignment with a vault edge for a neat appearance and shall be placed in a consistent location from one cover to the next. Where practical, the identifying word shall be aligned so that it can be read from the front of the vault, that is, from the side of the vault where the door latch or vault tag is located.

Section 4. Underground Service

CONDUIT ENTRANCE AND GROUTING

FIGURE 4-19



NOTE: Only District personnel are authorized to penetrate into an existing energized vault.
Under no circumstance shall the Customer/Contractor penetrate the wall of an existing energized vault with either conduit or conductor.

Section 4. Underground Service

N. GROUNDING

1. Only one ground rod with #2 bare copper ground wire is required at each transformer vault when there is more than one vault in succession.
2. Two ground rods are required if installation is at the end of a lateral (the end vault). They shall be installed a minimum of 6 feet apart.
3. Two ground rods are required at all j-box vaults. They shall be installed a minimum of 6 feet apart. Refer to Figure 4-20.
4. Four ground rods are required at all feeder switch cabinet vaults and splice vaults. Refer to T&D Compatible Unit N0321 for grounding details.
5. Two ground rods with 1/0 stranded bare copper wire are required at all secondary cabinet vaults. They shall be installed a minimum of 6 feet apart.

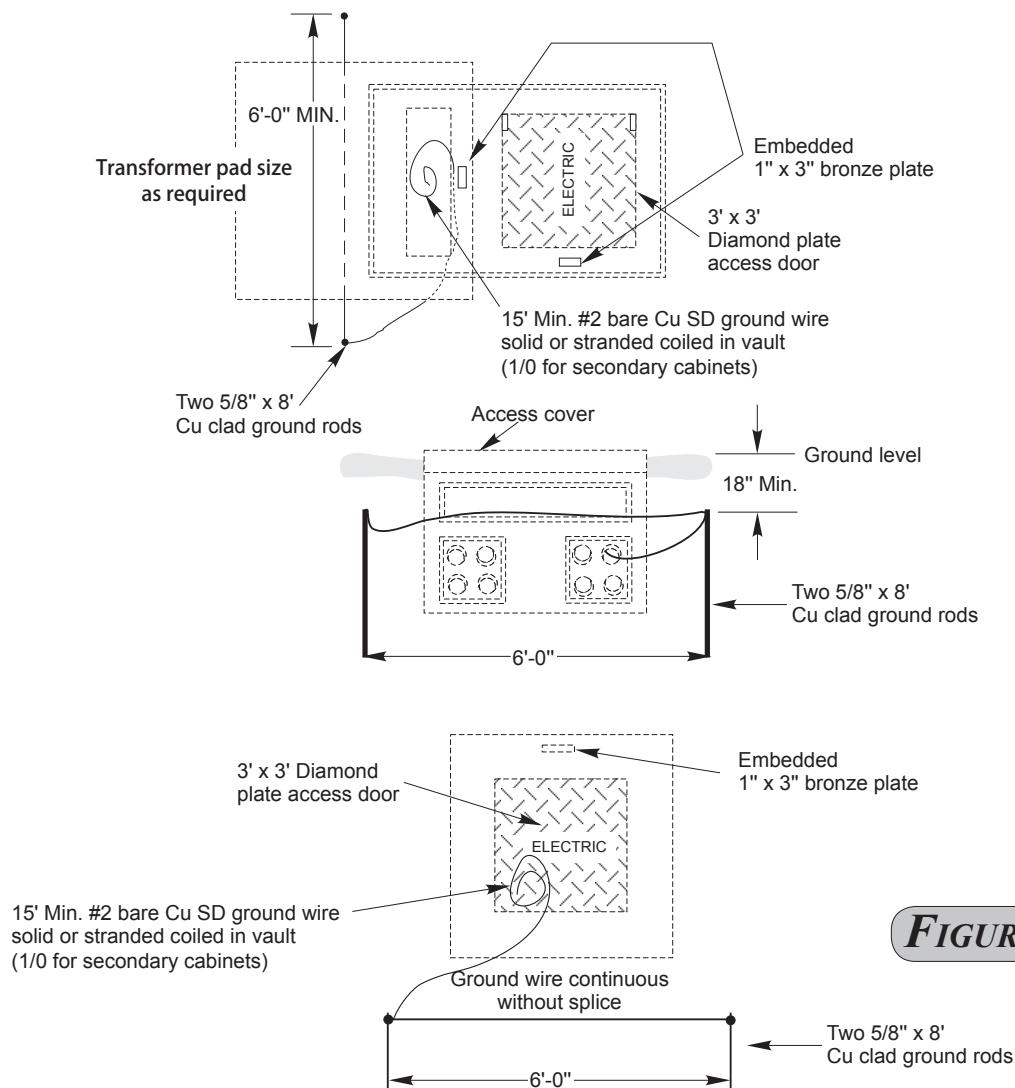


FIGURE 4-20

Section 4. Underground Service

O. VAULT ROOMS

Customer-furnished transformer vault rooms shall be submitted to and approved by the District **prior to construction**, in full compliance with NEC Article 450.41 through 450.48, for each individual installation and in accordance with the minimum requirements listed below:

1. The size of the transformer(s) shall determine the size of the vault, size of oil entrapment sill or sump, access size and amount of ventilation required.
2. A floor drain or sump shall be provided if there is a possibility of water entering the vault. Such drainage shall be located so that oil spillage cannot enter it.
3. The vault walls, floor and ceiling shall be solid concrete.
4. The room shall be illuminated by a minimum of 3 permanent fixtures and positioned so that all sides of the transformers are illuminated and arranged so that qualified individuals may change lamps or make repairs without violating the 2 foot minimum clearance requirement from energized primary conductors and equipment. Fixtures shall use T5 or T8 fluorescent lamps or long life LED lamps and a light switch inside next to the latch side of the door. There shall be a minimum of 10 foot candles per square foot. Two duplex outlets with GFI protection shall also be installed on opposite ends of the vault walls.
5. Permanent transformer lifting eyes in the ceiling shall be provided.
6. 3-hour fire door(s) shall be provided in accordance with NEC 450.43 and a heavy duty panic bar exit device (*Precision No. 4R0FL5103-603, 703A or 808A trim*) and heavy duty automatic door closure (*Stanley No. D-4550- Std.*) shall be installed on the door(s). Key boxes and/or other panic bar and automatic door closures from alternate manufacturers are not acceptable. The door shall open towards egress of the room. During the construction phase, the panic bar exit device shall be equipped with a BEST Access Systems construction core on the outside of the door. When the vault room is ready to be energized, the District will furnish and change the construction core out to a District's "P" tumbler series which will then accept only the District's master "P" series key. The locking system shall limit access to qualified District employees only and not allow access to unqualified individuals (WAC 296-307-36230).

For lock, automatic closure and exit bar device information contact:

Contract Hardware, Inc
Attention: Lynne Hufstедler
12100 NE 195th St. Suite 250
Bothell, WA 98011
Phone: 1-206-298-4770
Fax: 1-206-298-4777

Section 4. Underground Service

7. The owner and his/her agents and/or the homeowners association of the building shall be responsible to install, retain and maintain the District's required BEST knobset, panic bar exit device and automatic door closure for the life of the service to the premises or the electrical service to the building will be subject to disconnection. Should any maintenance or replacement of this customer owned equipment be necessary an authorized District employee shall assist the customer with the work.
8. The District shall furnish and install a sign on the exterior door stating "Electrical Vault Room". In multiple unit complexes, the customer shall provide building identification signage.
9. It is the customer's responsibility to insulate transformer vault rooms so that sound or transmitted vibration to other areas of the building are minimal. Transformer vault rooms must meet or exceed requirements of the applicable laws and noise ordinances of the Washington Administrative Code.
10. Foreign pipes and ducts shall not enter or pass through transformer vaults (NEC 450-47).

P. MAINTENANCE

Maintenance of District-Owned Underground Service Conductors:

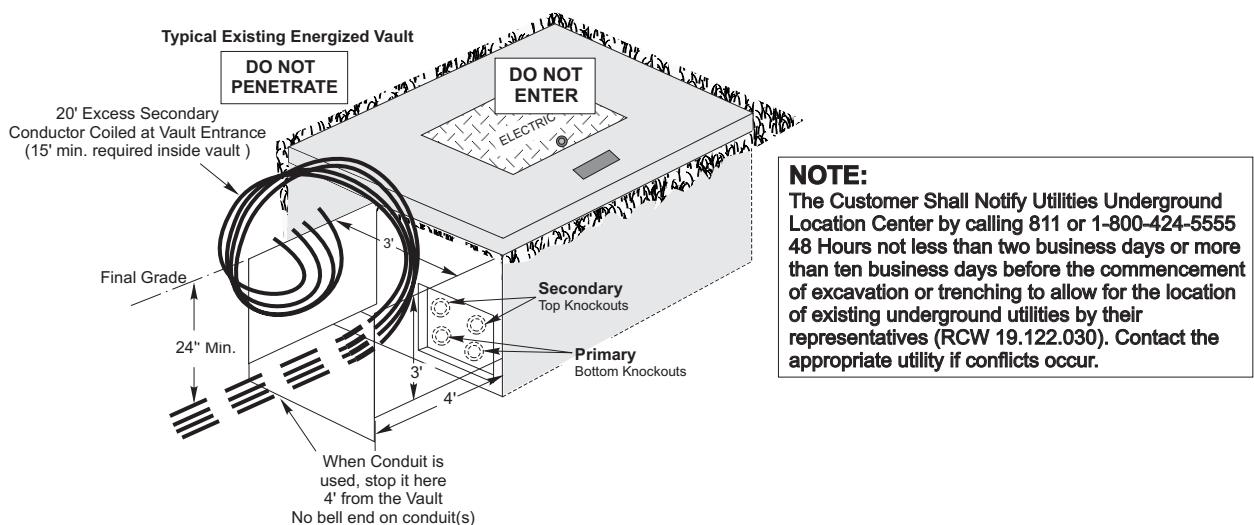
The District will not charge for normal maintenance of underground service. If a fault occurs in a conductor as a result of improper backfill or dig-in damage caused by a customer or contractor, charges for repair will be determined by the District's Claims Department and billed to the responsible party.

Section 4. Underground Service

Q. INCREASING CAPACITY - EXISTING VAULT LOCATION

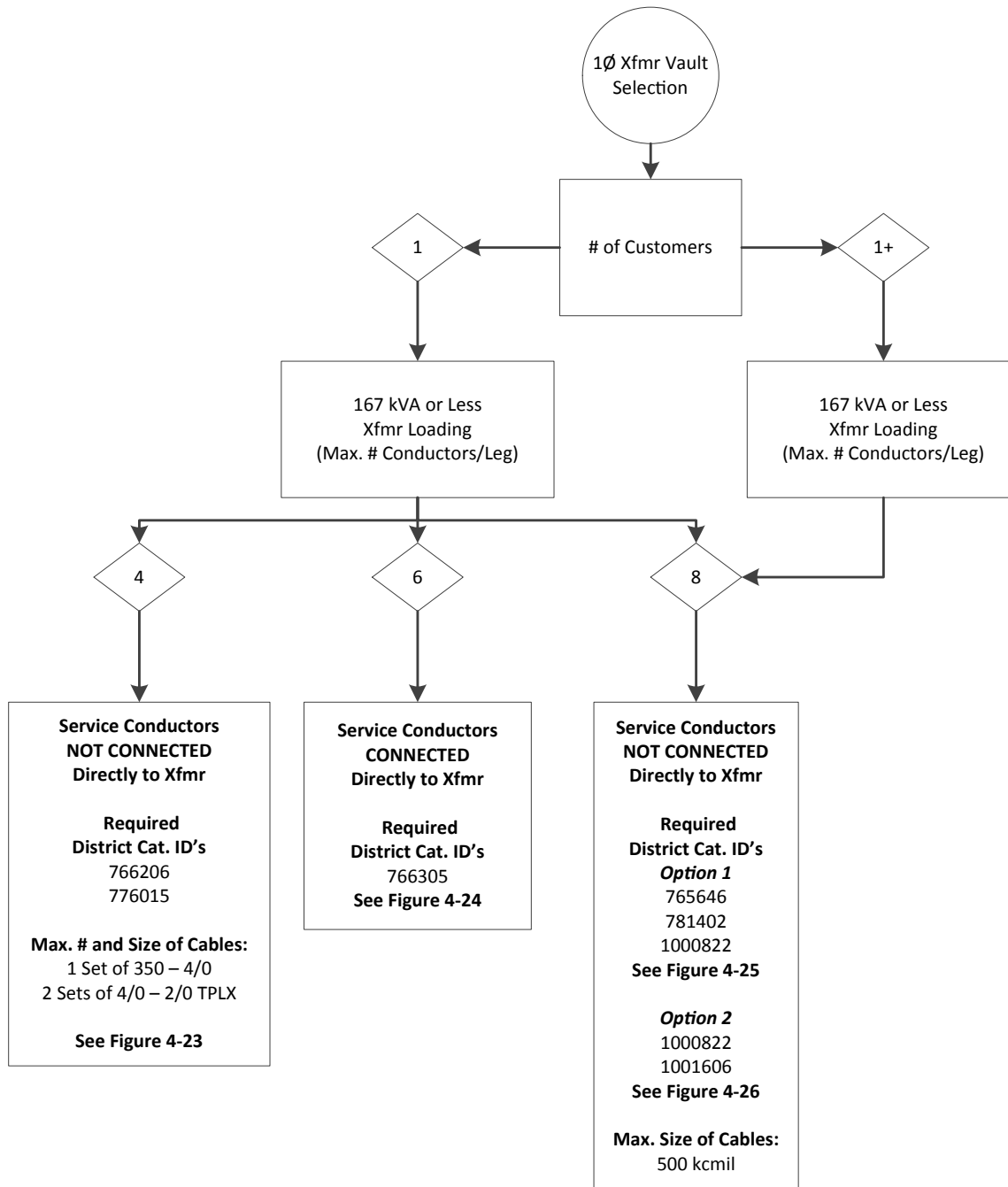
1. When adding secondary feeds to an existing energized padmount transformer, secondary handhole or pedestal, stop outside the vault and provide 20' of excess conductor and a work hole 3 foot wide x 3 foot deep x 4 foot back from vault for **District personnel to penetrate the vault, extend the conductors and/or conduit(s) and make the connections.**
2. Any costs associated with damage and repair to the existing primary, secondary(s) or ground wires are the responsibility of the customer/contractor.
3. **Under no circumstance shall the Customer penetrate the wall of an existing energized vault with either conduit or conductor. Only District personnel are authorized to penetrate into an existing energized vault.**
4. Contact engineering to determine which corner of an existing vault is available for the service to enter.

FIGURE 4-21



Section 4. Underground Service

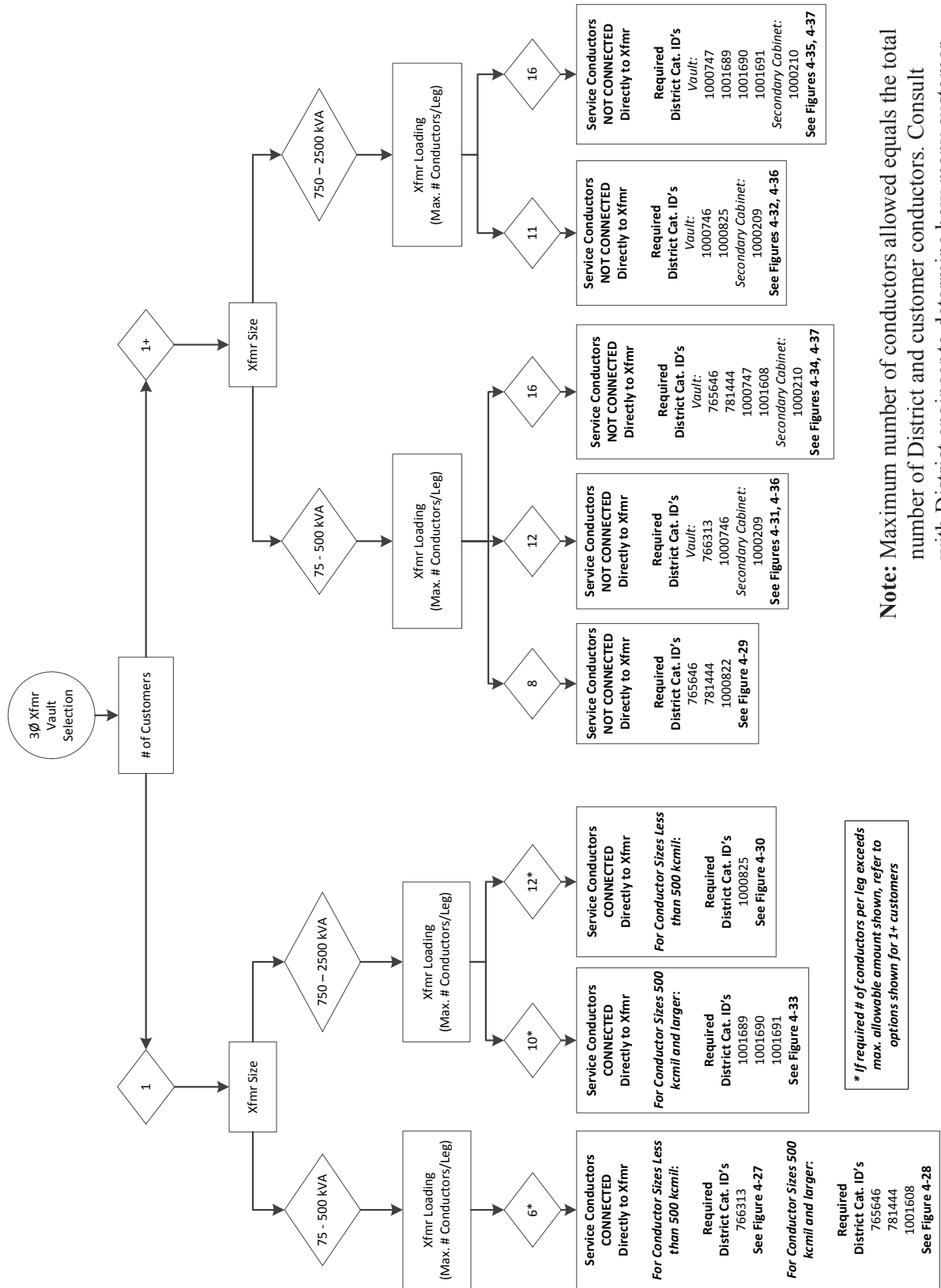
Table 2 - 1Ø Xfmr Vault Selection Criteria



Note: Maximum number of conductors allowed equals the total number of District and customer conductors. Consult with District engineer to determine how many customer conductors are allowed for a given transformer size.

Section 4. Underground Service

Table 3 - 3Ø Xfmr Vault Selection Criteria



Note: Maximum number of conductors allowed equals the total number of District and customer conductors. Consult with District engineer to determine how many customer conductors are allowed for a given transformer size.

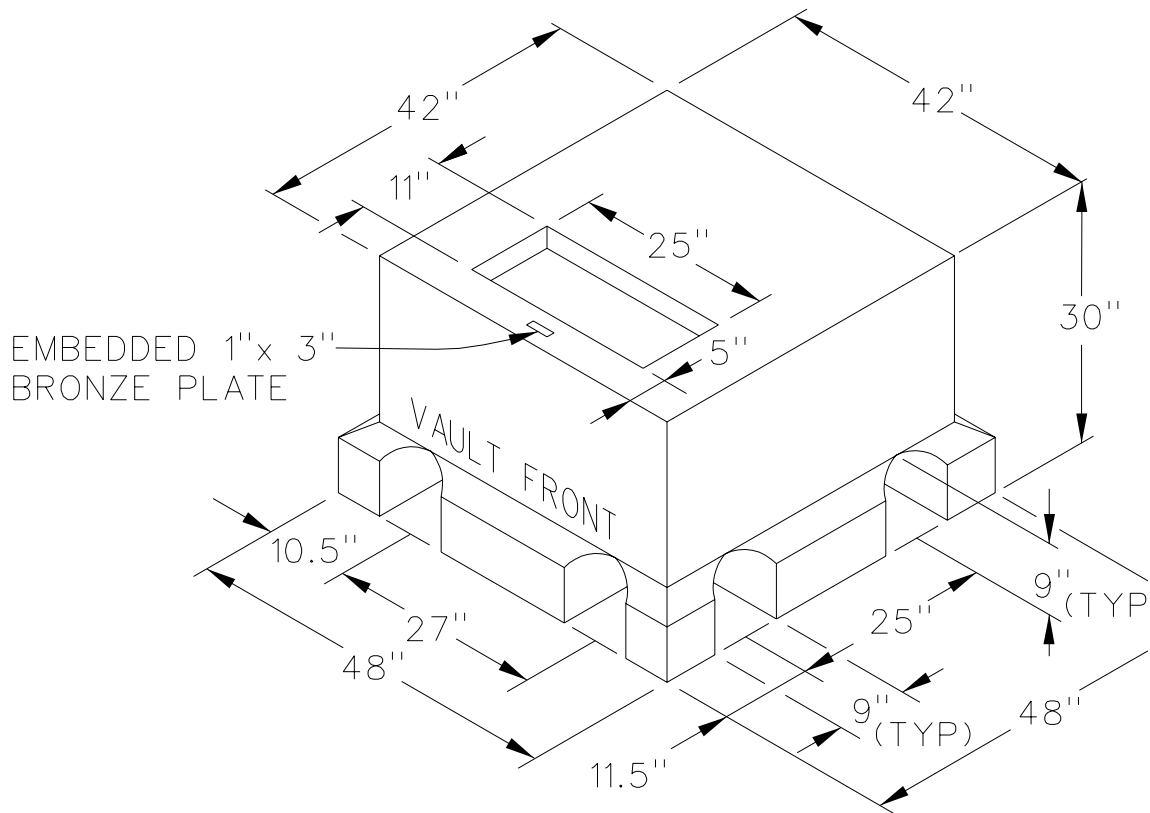
Section 4. Underground Service

One 1Ø Open Bottom J-Box Vault

Note: This vault is used to support a junction box for single family residential and small commercial services. In small commercial applications the customer shall furnish and install the concrete vault, two ground rods, clamps and ground wire. Refer to Grounding, Section 4-N.

FIGURE 4-22

District Cat. ID 766214



Section 4. Underground Service

One 1Ø Customer Open Bottom Vault with Transformer

Transformer 50 kVA through 167 kVA

Maximum of 4 conductors per leg.

Service conductors *not connected* directly to transformer.

Pedestal - 13"W x 24"L x 15"D

Maximum number and size of cables allowed:

1-Set of 350/4/0 Triplex & 2-Sets of 4/0-2/0 Triplex

District Cat. ID 776015
(13"W x 24"L x 15"D)

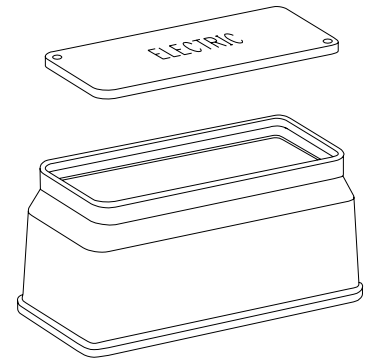
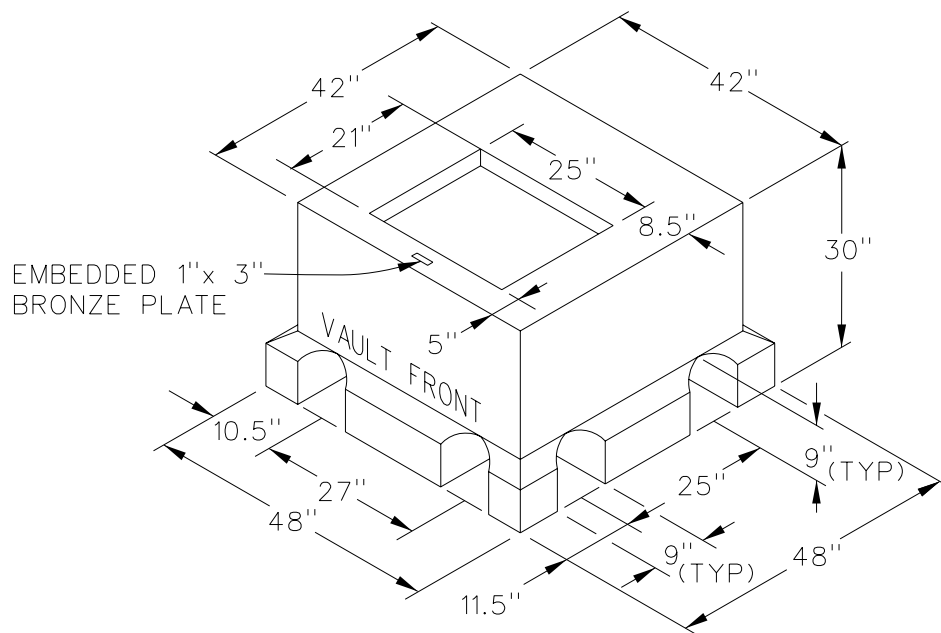


FIGURE 4-23

District Cat. ID 766206



Note: This vault and pedestal combination is used for single family residential and small commercial services. In small commercial applications the customer shall furnish and install the concrete vault, two ground rods, clamps, and ground wire. Refer to Grounding, Section 4-N.

Section 4. Underground Service

One 1Ø Customer Transformer Vault

Transformer 167 kVA or less

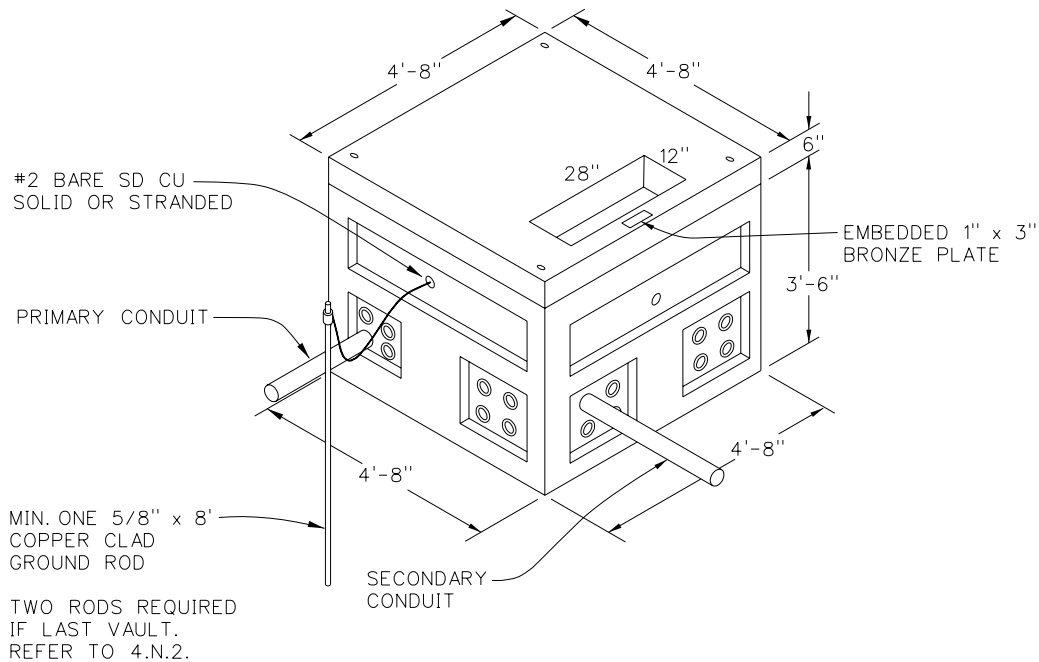
Maximum of 6 conductors per leg

Maximum size of conductor 500 kcmil

Service conductors *connected* directly to transformer

FIGURE 4-24

District Cat. ID 766305



Section 4. Underground Service

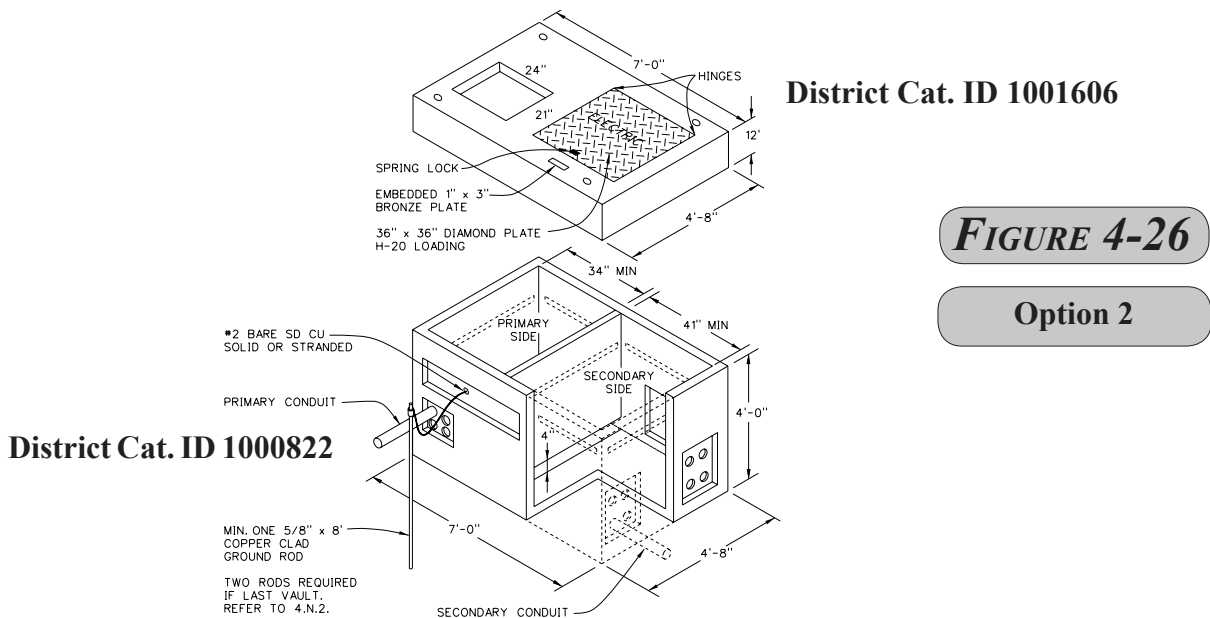
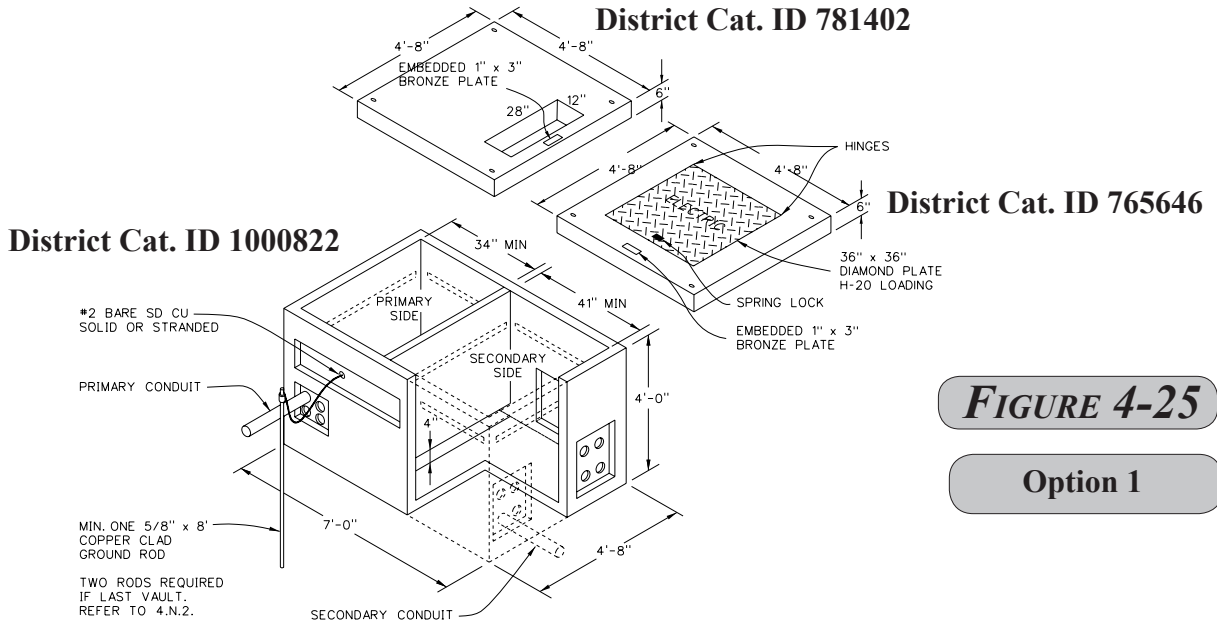
One or More 1Ø Customers, Transformer Vault with Secondary Handhole

Transformer 167 kVA or less

Maximum of 8 conductors per leg

Maximum size of conductor 500 kcmil

Service conductors *not connected* directly to transformer



Section 4. Underground Service

One 3Ø Customer Transformer Vault

Transformer 75 - 500 kVA

Maximum 6 conductors per leg. Maximum conductor size less than 500 kcmil.

Service conductors connected directly to transformer.

District Cat. ID
766313

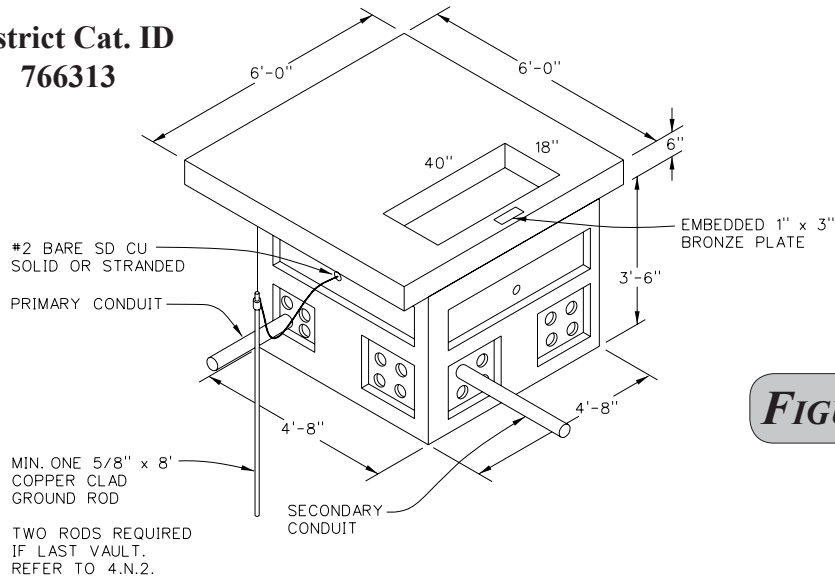


FIGURE 4-27

One 3Ø Customer Transformer Vault

Transformer 75 - 500 kVA

Maximum 6 conductors per leg. For conductor sizes 500 kcmil and larger.

Service conductors connected directly to transformer.

For conductor sizes 500 kcmil and larger a diamond plate access cover shall be provided as shown below.

District Cat. ID
781444

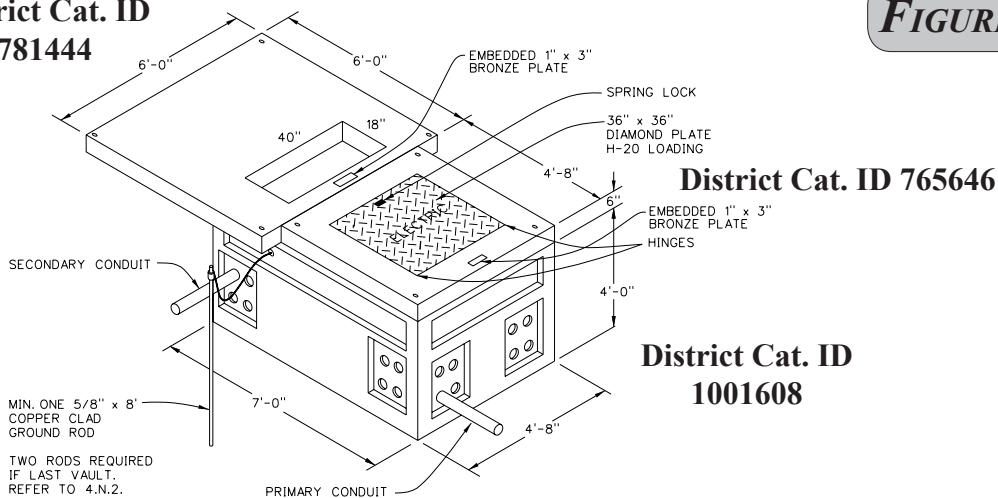


FIGURE 4-28

Section 4. Underground Service

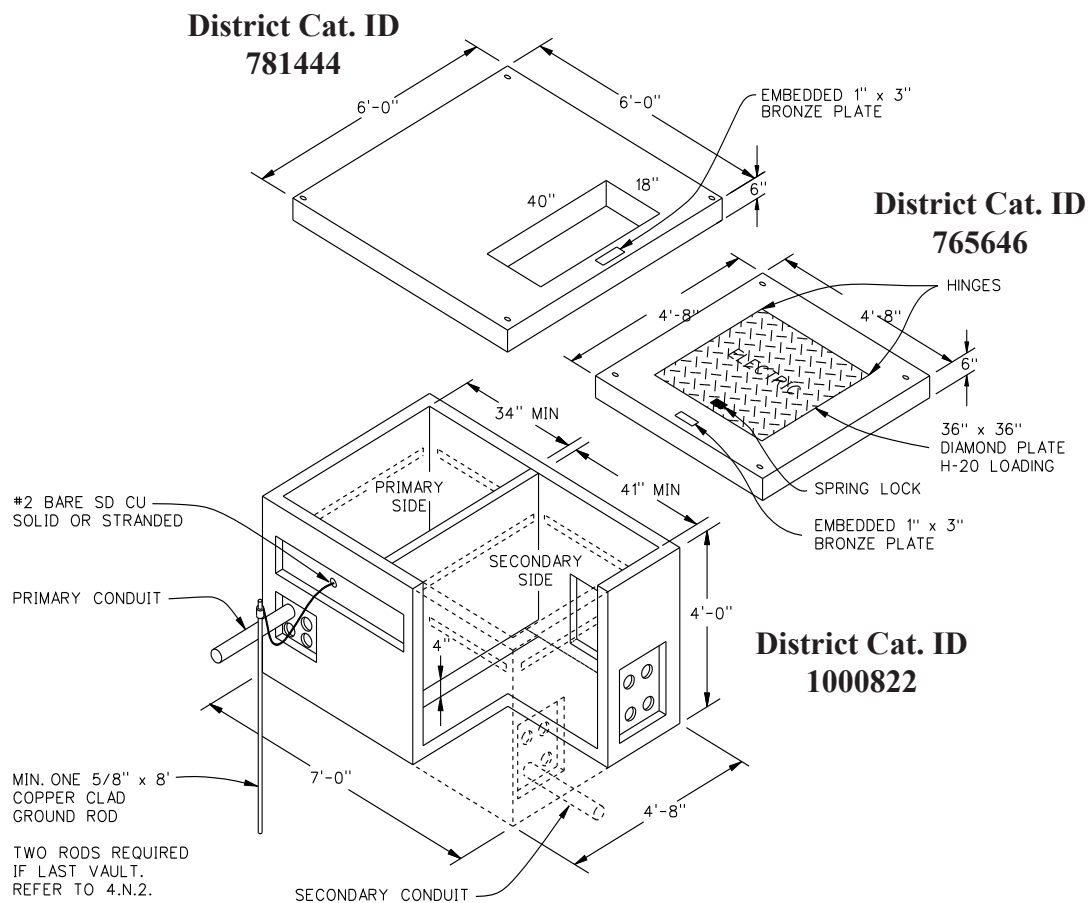
One or More 3Ø Customers, Transformer Vault with Secondary Handhole

Transformer 75 — 500 kVA.

Maximum of 8 conductors per leg.

Service conductors *not connected* directly to transformer.

FIGURE 4-29



Section 4. Underground Service

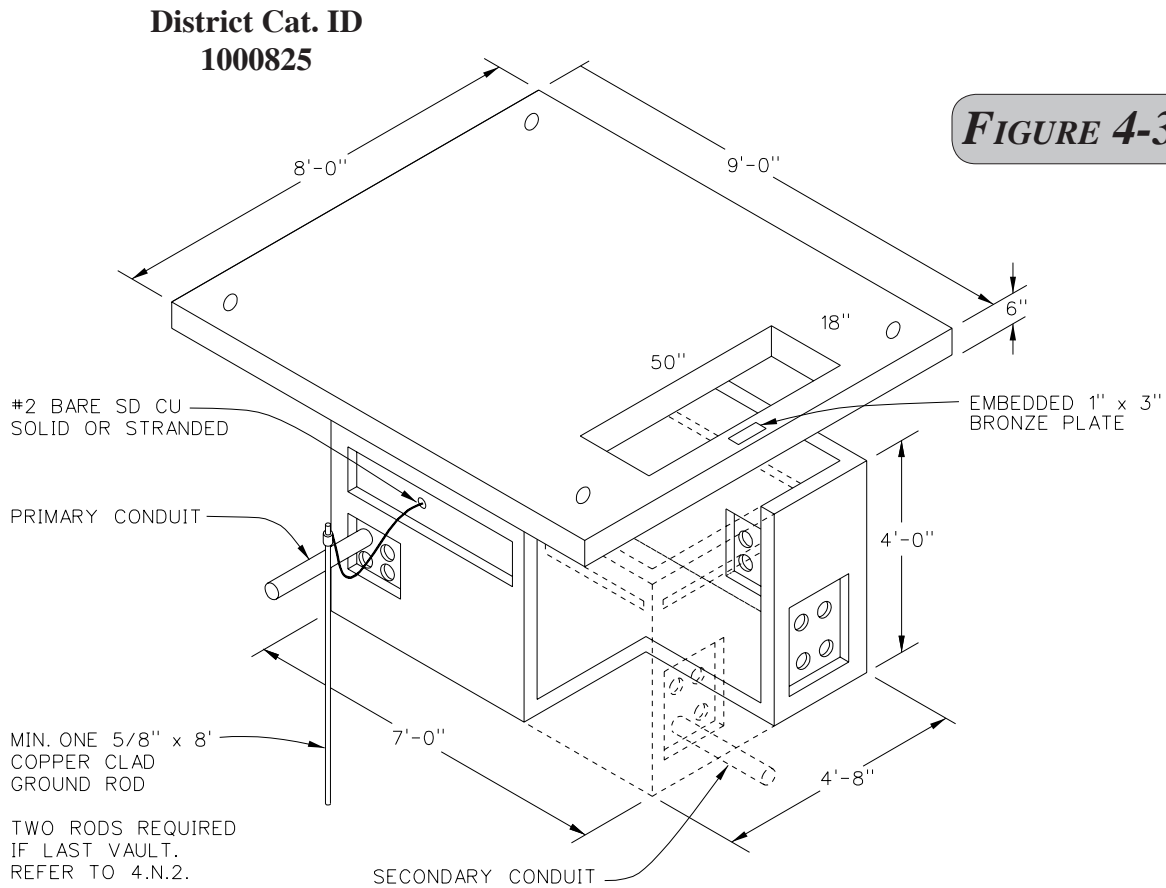
One 3Ø Customer Transformer Vault

Transformer 750 — 2500 kVA.

Maximum of **12** conductors per leg.

For any conductors **less than 500kcmil**.

Service conductors *connected* directly to transformer.



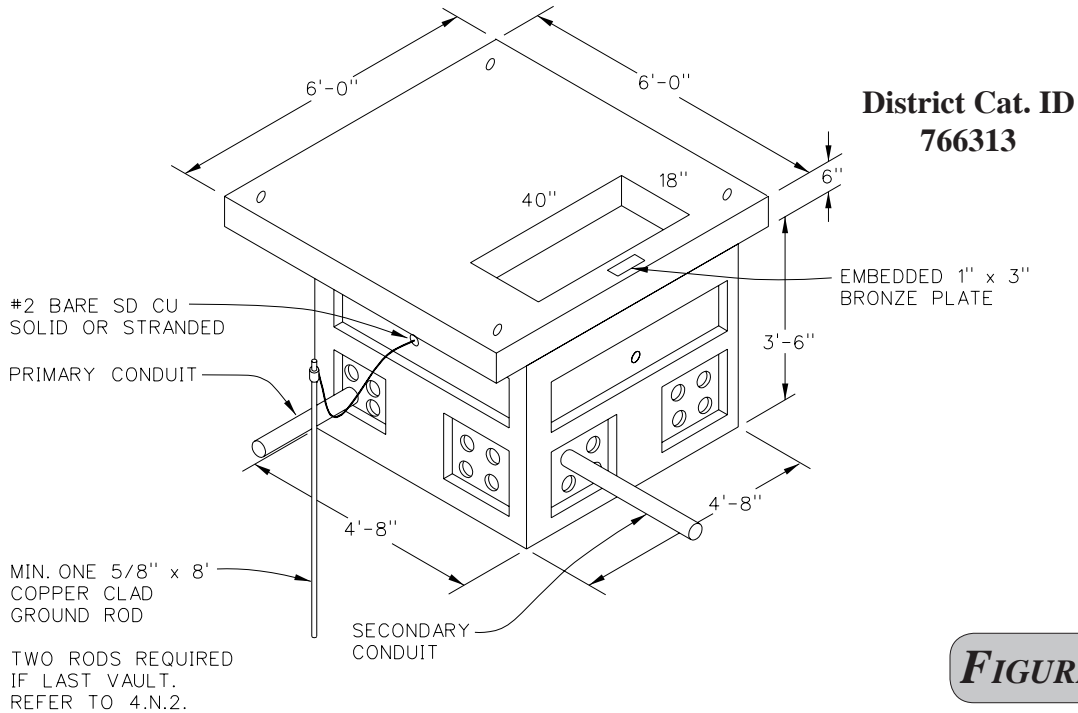
Section 4. Underground Service

One or More 3Ø Customers, Transformer Vault with Secondary Cabinet

Transformer 75 — 500 kVA.

Maximum 12 conductors per leg.

Service conductors *not connected* directly to transformer.

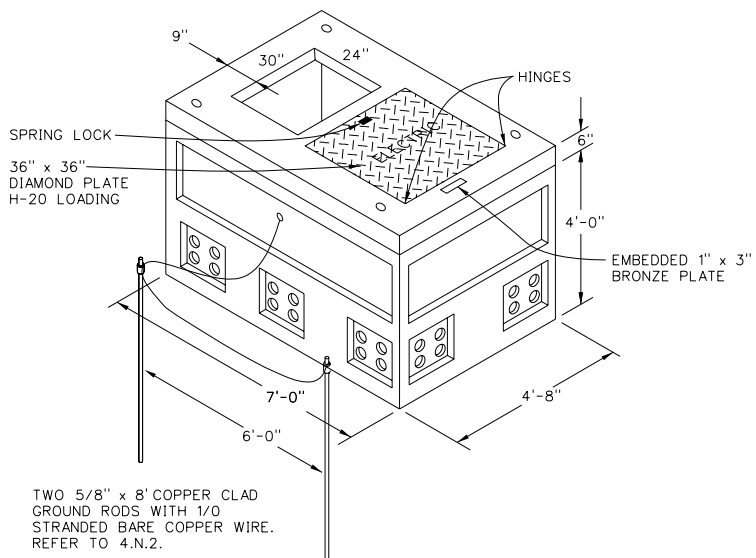


Note:

See Figure 4-36 for
Secondary Cabinet
Illustration.

Refer to 4.M.2.d. for vault spacing requirements.

**District Cat. ID
1000746**



Section 4. Underground Service

One or More 3Ø Customers, Transformer Vault with Secondary Cabinet

Transformer 750 — 2500 kVA.

Maximum **11** conductors per leg.

Service conductors *not connected* directly to transformer.

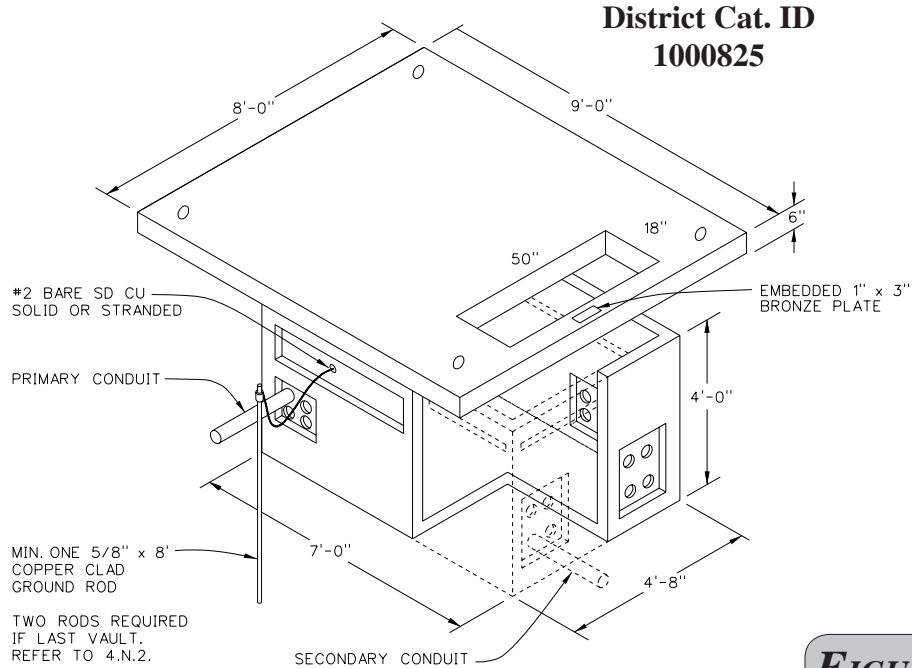
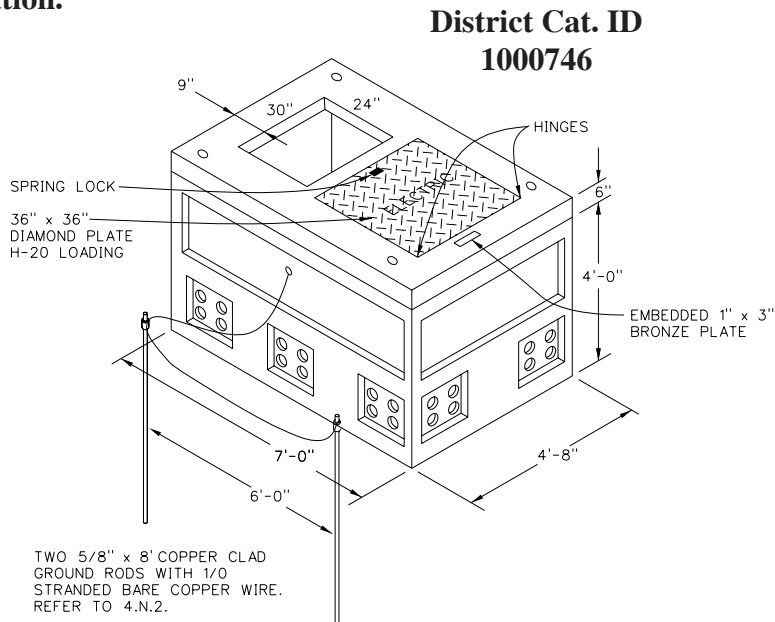


FIGURE 4-32

Note:

See Figure 4-36 for Secondary Cabinet Illustration.

Refer to 4.M.2.d. for vault spacing requirements.



Section 4. Underground Service

One 3Ø Customer, Transformer Vault

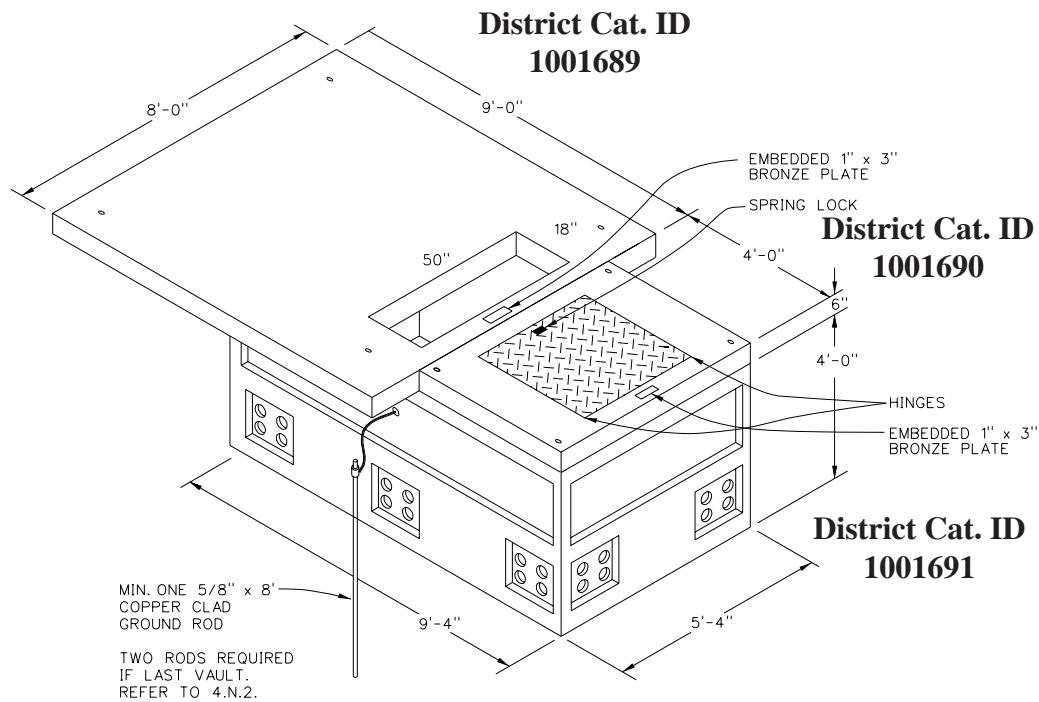
Transformer 750 — 2500 kVA.

Maximum **10** conductors per leg.

For conductor sizes 500kcmil and larger

Service conductors *connected* directly to transformer.

FIGURE 4-33



Section 4. Underground Service

One or More 3Ø Customers, Transformer Vault with Secondary Cabinet

Transformer 75 — 500 kVA.

Maximum 16 conductors per leg.

Service conductors *not connected* directly to transformer.

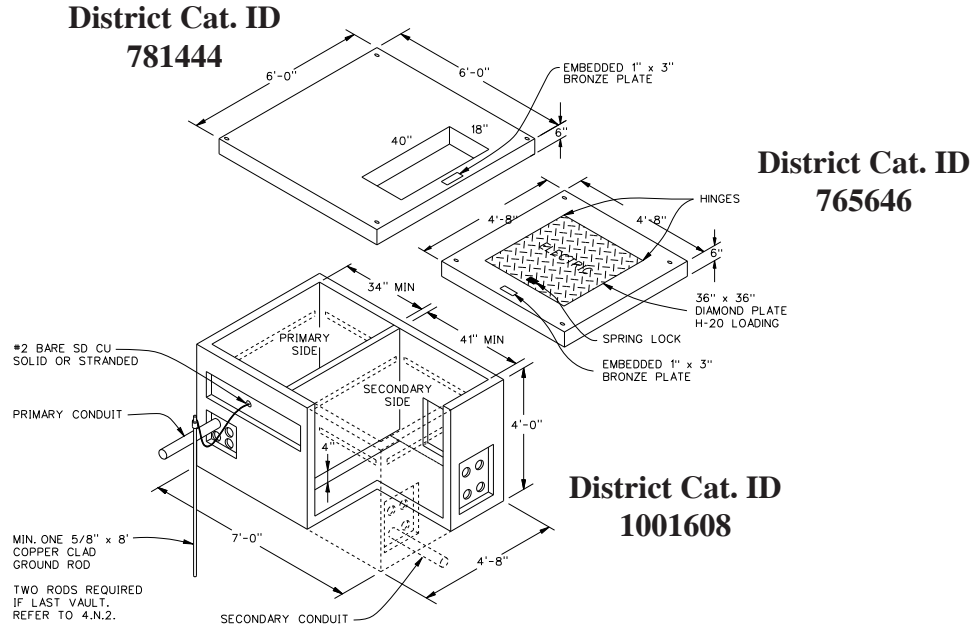
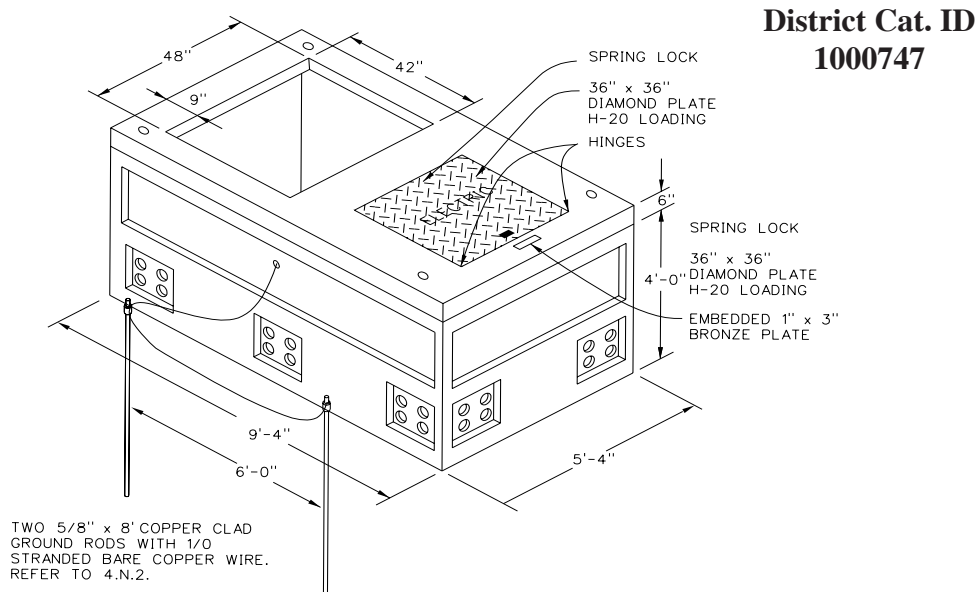


FIGURE 4-34

Note:
See Figure 4-37 for Secondary Cabinet Illustration.

Refer to 4.M.2.d. for vault spacing requirements.



Section 4. Underground Service

One or More 3Ø Customers, Transformer Vault with Secondary Cabinet

Transformer 750 — 2500 kVA.

Maximum 16 conductors per leg.

Service conductors *not connected* directly to transformer.

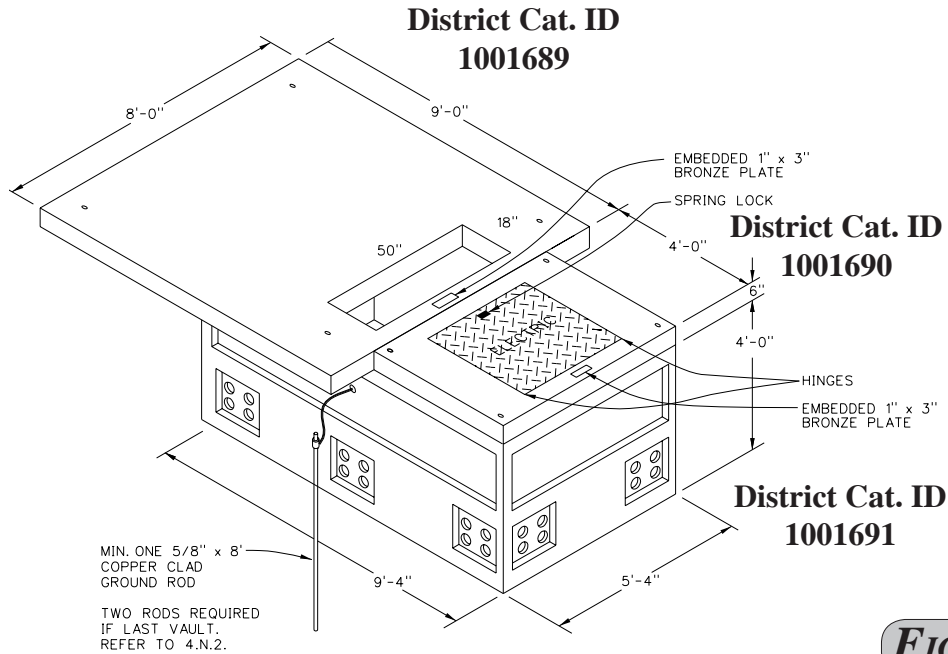
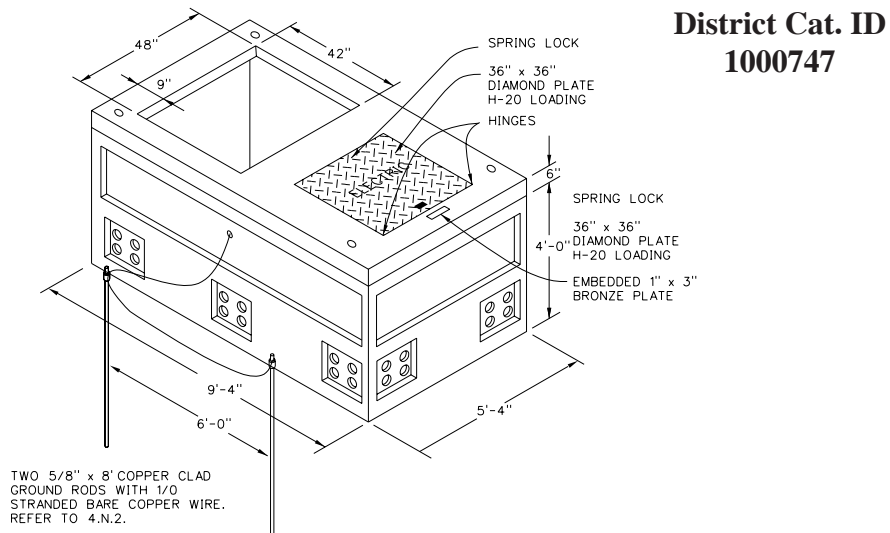


FIGURE 4-35

Note:
See Figure 4-37 for Secondary Cabinet Illustration.

Refer to 4.M.2.d. for vault spacing requirements.



Section 4. Underground Service

Secondary Termination Cabinet

20 connections per phase (maximum)



District Cat. ID
1000209

FIGURE 4-36



**Note: Install on District vault assembly Cat. ID 1000746.
Refer to 4.N.5. for grounding.**

Section 4. Underground Service

Secondary Termination Cabinet

30 connections per phase (maximum)



District Cat. ID
1000210

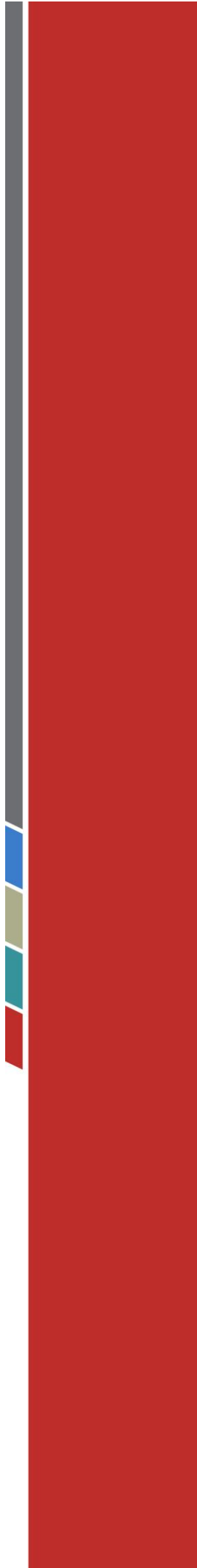
FIGURE 4-37



Note: Install on District vault assembly Cat. ID 1000747.
Refer to 4.N.5. for grounding.

Appendix D

Davis-Bacon Wages



"General Decision Number: WA20220001 03/18/2022
 Superseded General Decision Number: WA20210001
 State: Washington
 Construction Type: Highway
 Counties: Washington Statewide.
 HIGHWAY (Excludes D.O.E. Hanford Site in Benton and Franklin
 Counties)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: 	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: 	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	02/18/2022
2	02/25/2022
3	03/18/2022

CARP0003-006 06/01/2018

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

	Rates	Fringes
Carpenters:		
CARPENTERS.....	\$ 37.64	16.83
DIVERS TENDERS.....	\$ 43.73	16.83
DIVERS.....	\$ 87.73	16.83
DRYWALL.....	\$ 37.64	16.83
MILLWRIGHTS.....	\$ 38.17	16.83
PILEDRIVERS.....	\$ 38.71	16.83

DEPTH PAY:

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

Zone Differential (Add up Zone 1 rates):

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

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

ZONE 1: Projects located within 30 miles of the respective city hall of the above mentioned cities
 ZONE 2: Projects located more than 30 miles and less than 40 miles of the respective city of the above mentioned cities
 ZONE 3: Projects located more than 40 miles and less than 50 miles of the respective city of the above mentioned cities
 ZONE 4: Projects located more than 50 miles and less than 60 miles of the respective city of the above mentioned cities.
 ZONE 5: Projects located more than 60 miles and less than 70 miles of the respective city of the above mentioned cities
 ZONE 6: Projects located more than 70 miles of the respected city of the above mentioned cities

 CARP0030-004 06/01/2020

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

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

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

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

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

Zone Pay:

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

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

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

Zone Pay:

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

CARP0059-002 06/01/2019

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

	Rates	Fringes
CARPENTER		
GROUP 1.....	\$ 35.47	16.88
GROUP 2.....	\$ 47.42	18.96
GROUP 3.....	\$ 36.66	16.88
GROUP 4.....	\$ 36.66	16.88
GROUP 5.....	\$ 83.96	16.88
GROUP 6.....	\$ 40.23	16.88
GROUP 7.....	\$ 41.23	16.88
GROUP 8.....	\$ 37.66	16.88
GROUP 9.....	\$ 44.23	16.88

CARPENTER & DIVER CLASSIFICATIONS:

GROUP 1: Carpenter

GROUP 2: Millwright, Machine Erector

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

GROUP 4: Bridge, Dock, and Wharf carpenters

GROUP 5: Diver Wet

GROUP 6: Diver Tender, Manifold Operator, ROV Operator

GROUP 7: Diver Standby

GROUP 8: Assistant Diver Tender, ROV Tender/Technician

GROUP 9: Manifold Operator-Mixed Gas

ZONE PAY:

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

DISPATCH POINTS:

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

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

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

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

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

DEPTH PAY FOR DIVERS BELOW WATER SURFACE:

50-100 feet	\$2.00 per foot
101-150 feet	\$3.00 per foot
151-220 feet	\$4.00 per foot
221 feet and deeper	\$5.00 per foot

PREMIUM PAY FOR DIVING IN ENCLOSURES WITH NO VERTICAL ASCENT:

0-25 feet	Free
26-300 feet	\$1.00 per Foot

SATURATION DIVING:

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

WORK IN COMBINATION OF CLASSIFICATIONS:

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

HAZMAT PROJECTS:

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

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

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

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

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

 CARP0770-003 06/01/2020

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

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

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

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

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

Zone Pay:

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

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

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

Zone Pay:

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

 ELEC0046-001 01/01/2022

CALLAM, JEFFERSON, KING AND KITSAP COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 68.50	25.72
ELECTRICIAN.....	\$ 64.31	26.28

 * ELEC0048-003 01/01/2021

CLARK, KLICKITAT AND SKAMANIA COUNTIES

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

HOURLY ZONE PAY:

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

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

Zone Pay:

Zone 1: 31-50 miles \$1.50/hour
Zone 2: 51-70 miles \$3.50/hour
Zone 3: 71-90 miles \$5.50/hour
Zone 4: Beyond 90 miles \$9.00/hour

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

ELEC0048-029 01/01/2021

COWLITZ AND WAHKIAKUM COUNTY

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

ELEC0073-001 01/01/2022

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

	Rates	Fringes
CABLE SPLICER.....	\$ 34.10	16.68
ELECTRICIAN.....	\$ 39.55	19.68

ELEC0076-002 08/31/2021

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

	Rates	Fringes
CABLE SPLICER.....	\$ 53.15	23.81
ELECTRICIAN.....	\$ 51.77	24.23

ELEC0112-005 06/01/2021

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

	Rates	Fringes
CABLE SPLICER.....	\$ 52.50	23.01
ELECTRICIAN.....	\$ 50.00	22.93

ELEC0191-003 06/01/2020

ISLAND, SAN JUAN, SNOHOMISH, SKAGIT AND WHATCOM COUNTIES

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

 ELEC0191-004 06/01/2018

CHELAN, DOUGLAS, GRANT AND OKANOGAN COUNTIES

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

 ENGI0302-003 06/01/2021

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

Zone 1 (0-25 radius miles):

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1A.....	\$ 51.91	23.82
Group 1AA.....	\$ 52.66	23.82
Group 1AAA.....	\$ 53.42	23.82
Group 1.....	\$ 51.15	23.82
Group 2.....	\$ 50.50	23.82
Group 3.....	\$ 49.92	23.82
Group 4.....	\$ 46.73	23.82

Zone Differential (Add to Zone 1 rates):

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

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

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

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

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

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

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

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

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

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

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

HANDLING OF HAZARDOUS WASTE MATERIALS:

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

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

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

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

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

ENGI0370-002 06/01/2021

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

ZONE 1:

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 29.76	20.65
GROUP 2.....	\$ 30.08	20.65
GROUP 3.....	\$ 30.69	20.65
GROUP 4.....	\$ 30.85	20.65
GROUP 5.....	\$ 31.01	20.65
GROUP 6.....	\$ 31.21	20.65
GROUP 7.....	\$ 31.56	20.65
GROUP 8.....	\$ 32.66	20.65

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

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

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

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

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

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

GROUP 3: A-frame Truck (2 or more drums); Assistant Refrigeration Plant & Chiller Operator (over 1000 ton); Backfillers (Cleveland & similar); Batch Plant & Wet Mix Operator, single unit (concrete); Belt-Crete Conveyors with power pack or similar; Belt Loader (Kocal or similar); Bending Machine; Bob Cat (Skid Steer); Boring Machine (earth); Boring Machine (rock under 8 inch bit) (Quarry Master, Joy or similar); Bump Cutter (Wayne, Saginaw or similar); Canal Lining Machine (concrete); Chipper (without crane); Cleaning & Doping Machine (pipeline); Deck Engineer; Elevating Belt-type Loader (Euclid, Barber Green & similar); Elevating Grader-type Loader (Dumor, Adams or similar); Generator Plant Engineers (diesel or electric); Gunnite Combination Mixer & Compressor; Locomotive Engineer; Mixermobile; Mucking Machine; Posthole Auger or Punch; Pump (grout or jet); Soil Stabilizer (P & H or similar); Spreader Machine; Dozer/Tractor (up to D-6 or equivalent) and Traxcavator; Traverse Finish Machine; Turnhead Operator

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

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

GROUP 6: Asphalt Plant Operator; Automatic Subgrader (Ditches & Trimmers) (Autograde, ABC, R.A. Hansen & similar on grade wire); Backhoe (45,000 gw and over to 110,000 gw); Backhoes & Hoe Ram (3/4 yd. to 3 yd.); Batch Plant (over 4 units); Batch & Wet Mix Operator (multiple units, 2 & incl. 4); Blade Operator (motor patrol & attachments); Cable Controller (dispatcher); Compactor (self-propelled with blade); Concrete Pump Boom Truck; Concrete Slip Form Paver; Cranes (over 25 tons, to and including 45 tons), all attachments including clamshell, dragline; Crusher, Grizzle & Screening Plant Operator; Dozer, 834 R/T & similar; Drill Doctor; Loader Operator (front-end & overhead, 4 yds. incl. 8 yds.); Multiple Dozer Units with single blade; Paving Machine (asphalt and concrete); Quad-Track or similar equipment; Rollerman (finishing asphalt pavement); Roto Mill (pavement grinder); Scrapers, all, rubber-tired; Screed Operator; Shovel (under 3 yds.); Trenching Machines (7 ft. depth & over); Tug Boat Operator Vactor guzzler, super sucker; Lime Batch Tank Operator (REcycle Train); Lime Brain Operator (Recycle Train); Mobile Crusher Operator (Recycle Train)

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

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

BOOM PAY: (All Cranes, Including Tower)
 180 ft to 250 ft \$.50 over scale
 Over 250 ft \$.80 over scale

NOTE:

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

HAZMAT:

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

 ENGI0612-001 06/01/2020

PIERCE County

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

Zone 1 (0-25 radius miles):

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

Zone Differential (Add to Zone 1 rates):

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

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

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ENGI0612-012 06/01/2020

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

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

Zone 1 (0-25 radius miles):

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

Zone Differential (Add to Zone 1 rates):

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

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

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

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

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

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

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

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

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

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

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- H-2 Class "C" Suit - Base wage rate plus \$1.00 per hour.
- H-3 Class "B" Suit - Base wage rate plus \$1.50 per hour.
- H-4 Class "A" Suit - Base wage rate plus \$2.00 per hour.

 ENGI0701-002 01/01/2018

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

POWER EQUIPMENT OPERATORS: ZONE 1

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

Zone Differential (add to Zone 1 rates):
 Zone 2 - \$3.00
 Zone 3 - \$6.00

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

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

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

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

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

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

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

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

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

Group 1

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

Group 1A

Crane, floating two hundred fifty (250) ton and over; Crane, two hundred (200) ton through two hundred ninety nine (299) ton, with over two hundred foot (200') boom (including jib, inserts and/or attachments); Crane, three hundred (300) ton through three hundred ninety nine (399) ton; Crane, Tower Crane with over one hundred seventy five foot (175') tower or over two hundred foot (200') jib; Crane, tower Crane on rail system or 2nd tower or more in work radius

Group 1B

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

Group 2

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

Group 3

Bulldozer, over seventy thousand (70,000) lbs. up to and including one hundred twenty thousand (120,000) lbs.; Crane, Boom Truck fifty (50) ton and over with less than one hundred fifty foot (150') boom; Crane, fifty (50) ton through eighty nine (89) ton with one hundred fifty foot (150') boom or less (including jib inserts and/or attachments); Crane, Shovel, Dragline or Clamshell three (3) cu. yds. but less than five (5) cu. Yds.; Excavator over eighty thousand (80,000) lbs. through one hundred thirty thousand (130,000) lbs.; Loader sixty thousand (60,000) lbs. and less than one hundred twenty thousand (120,000) lbs.

Group 4

Asphalt, Screed; Asphalt Paver; Asphalt Roto-Mill, pavement profiler, under eight foot (8') lateral cut; Asphalt, Material Transfer Vehicle Operator; Back Filling Machine; Backhoe, Robotic, track and wheel type up to and including twenty thousand (20,000) lbs. with any attachments; Blade (any type); Boatman; Boring Machine; Bulldozer over twenty thousand (20,000) lbs. and more than one hundred (100) horse up to seventy thousand (70,000) lbs.; Cable-Plow (any type); Cableway up to twenty five (25) ton; Cat Drill (John Henry); Chippers; Compactor, multi-engine; Compactor, Robotic; Compactor with blade self-propelled; Concrete, Breaker; Concrete, Grout Plant; Concrete, Mixer Mobile; Concrete, Paving Road Mixer; Concrete, Reinforced Tank Banding Machine; Crane, Boom Truck twenty (20) ton and under fifty (50) ton; Crane, Bridge Locomotive, Gantry and Overhead; Crane, Carry Deck; Crane, Chicago Boom and similar types; Crane, Derrick Operator, under one hundred (100) ton; Crane, Floating Clamshell, Dragline, etc. Operator, under three (3) cu. yds. Or less than thirty (30) ton; Crane, under fifty (50) ton; Crane, Quick Tower under one hundred foot (100') in height and less than one hundred fifty foot (150') jib (on rail included); Diesel-Electric Engineer (Plant or Floating); Directional Drill over twenty thousand (20,000) lbs. pullback; Drill Cat Operator; Drill Doctor and/or Bit Grinder; Driller, Percussion, Diamond, Core, Cable, Rotary and similar type; Excavator Operator over twenty thousand (20,000) lbs. through eighty thousand (80,000) lbs.; Generator Operator; Grade-all; Guardrail Machines, i.e. punch, auger, etc.; Hammer Operator (Piledriver); Hoist, stiff leg, guy derrick or similar type, fifty (50) ton and over; Hoist, two (2) drums or more; Hydro Axe (loader mounted or similar type); Jack Operator, Elevating Barges, Barge Operator, self-unloading; Loader Operator, front end and overhead, twenty five thousand (25,000) lbs. and less than sixty thousand (60,000) lbs.; Log Skidders; Piledriver Operator (not crane type); Pipe, Bending, Cleaning, Doping and Wrapping Machines; Rail, Ballast Tamper Multi-Purpose; Rubber-tired Dozers and Pushers; Scraper, all types; Side-Boom; Skip Loader, Drag Box; Strump Grinder (loader mounted or similar type); Surface Heater and Planer; Tractor, rubber-tired, over fifty (50) HP Flywheel; Trenching Machine three foot (3') depth and deeper; Tub Grinder (used for wood debris); Tunnel Boring Machine Mechanic; Tunnel, Mucking Machine; Ultra High Pressure Water Jet Cutting Tool System Operator; Vacuum Blasting Machine Operator; Water pulls, Water wagons

Group 5

Asphalt, Extrusion Machine; Asphalt, Roller (any asphalt mix); Asphalt, Roto-Mill pavement profiler ground man; Bulldozer, twenty thousand (20,000) lbs. or less, or one hundred (100) horse or less; Cement Pump; Chip Spreading Machine; Churn Drill and Earth Boring Machine; Compactor, self-propelled without blade; Compressor, (any power) one thousand two hundred fifty (1,250) cu. ft. and over, total capacity; Concrete, Batch Plant Quality control; Concrete, Combination Mixer and compressor operator, gunite work; Concrete, Curb Machine, Mechanical Berm, Curb and/or Curb and Gutter; Concrete, Finishing Machine; Concrete, Grouting Machine; Concrete, Internal Full Slab Vibrator Operator; Concrete, Joint Machine; Concrete, Mixer single drum, any capacity; Concrete, Paving Machine eight foot (8') or less; Concrete, Planer; Concrete, Pump; Concrete, Pump Truck; Concrete, Pumpcrete Operator (any type); Concrete, Slip Form Pumps, power driven hydraulic lifting device for concrete forms; Conveyored Material Hauler; Crane, Boom Truck under twenty (20) tons; Crane, Boom Type lifting device, five (5) ton capacity or less; Drill, Directional type less than twenty thousand (20,000) lbs. pullback; Fork Lift, over ten (10) ton or Robotic; Helicopter Hoist; Hoist Operator, single drum; Hydraulic Backhoe track type up to and including twenty thousand (20,000) lbs.; Hydraulic Backhoe wheel type (any make); Laser Screed; Loaders, rubber-tired type, less than twenty five thousand (25,000) lbs.; Pavement Grinder and/or Grooving Machine (riding type); Pipe, cast in place Pipe Laying Machine; Pulva-Mixer or similar types; Pump Operator, more than five (5) pumps (any size); Rail, Ballast Compactor, Regulator, or Tamper machines; Service Oiler (Greaser); Sweeper Self-Propelled; Tractor, Rubber-Tired, fifty (50) HP flywheel and under; Trenching Machine Operator, maximum digging capacity three foot (3') depth; Tunnel, Locomotive, Dinkey; Tunnel, Power Jumbo setting slip forms, etc.

Group 6

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

IRON0014-005 07/01/2021

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

	Rates	Fringes
IRONWORKER.....	\$ 35.55	30.36

IRON0029-002 07/01/2020

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

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

IRON0086-002 01/03/2022

YAKIMA, KITTITAS AND CHELAN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 36.19	30.70

IRON0086-004 07/01/2020

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

	Rates	Fringes
IRONWORKER.....	\$ 43.95	31.00

* LABO0238-004 06/01/2021

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

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

	Rates	Fringes
LABORER (PASCO)		
GROUP 1.....	\$ 26.69	13.65
GROUP 2.....	\$ 28.79	13.65
GROUP 3.....	\$ 29.06	13.65
GROUP 4.....	\$ 29.33	13.65
GROUP 5.....	\$ 29.61	13.65
LABORER (SPOKANE)		
GROUP 1.....	\$ 27.34	15.35
GROUP 2.....	\$ 29.44	15.35
GROUP 3.....	\$ 29.71	15.35
GROUP 4.....	\$ 29.98	15.35
GROUP 5.....	\$ 30.26	15.35

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

BASE POINTS: Spokane, Pasco, Lewiston

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

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

LABORERS CLASSIFICATIONS

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

GROUP 2: Asbestos Abatement Worker; Brush Hog Feeder; Carpenter Tender; Cement Handler; Clean-up Laborer; Concrete Crewman (to include stripping of forms, hand operating jacks on slip form construction, application of concrete curing compounds, pumpcrete machine, signaling, handling the nozzle of squeezecrete or similar machine, 6 inches and smaller); Confined Space Attendant; Concrete Signalman; Crusher Feeder; Demolition (to include clean-up, burning, loading, wrecking and salvage of all material); Dumpman; Fence Erector; Firewatch; Form Cleaning Machine Feeder, Stacker; General Laborer; Grout Machine Header Tender; Guard Rail (to include guard rails, guide and reference posts, sign posts, and right-of-way markers); Hazardous Waste Worker, Level D (no respirator is used and skin protection is minimal); Miner, Class "A" (to include

all bull gang, concrete crewman, dumpman and pumpcrete crewman, including distributing pipe, assembly & dismantle, and nipper); Nipper; Riprap Man; Sandblast Tailhoseman; Scaffold Erector (wood or steel); Stake Jumper; Structural Mover (to include separating foundation, preparation, cribbing, shoring, jacking and unloading of structures); Tailhoseman (water nozzle); Timber Bucker and Faller (by hand); Track Laborer (RR); Truck Loader; Well-Point Man; All Other Work Classifications Not Specially Listed Shall Be Classified As General Laborer

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

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

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

 LABO0238-006 06/01/2021

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

	Rates	Fringes
Hod Carrier.....	\$ 30.00	13.50

LABO0242-003 06/01/2021

KING COUNTY

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 28.75	13.29
GROUP 2A.....	\$ 32.96	13.29
GROUP 3.....	\$ 41.29	13.29
GROUP 4.....	\$ 42.29	13.29
GROUP 5.....	\$ 42.98	13.29
Group 6.....	\$ 43.98	13.29

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

- ZONE 1 - Projects within 25 radius miles of the respective city hall
- ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
- ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$1.00
 ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

- ZONE 1 - Projects within 25 radius miles of the respective city hall
- ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2A: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

Group 6: Miner

LABO0252-010 06/10/2021

CLALLAM, GRAYS HARBOR, JEFFERSON, KITSAP, LEWIS, MASON, PACIFIC
(EXCLUDING SOUTHWEST), PIERCE, AND THURSTON COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 28.75	13.19
GROUP 2.....	\$ 32.96	13.19
GROUP 3.....	\$ 41.29	13.19
GROUP 4.....	\$ 42.29	13.19
GROUP 5.....	\$ 42.98	13.19

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

ZONE 1 - Projects within 25 radius miles of the respective
city hall
 ZONE 2 - More than 25 but less than 45 radius miles from the
respective city hall
 ZONE 3 - More than 45 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$1.00
 ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective
city hall
 ZONE 2 - More than 25 radius miles from the respective city
hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window
Washer/Cleaner (detail clean-up, such as but not limited to
cleaning floors, ceilings, walls, windows, etc., prior to
final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer;
Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Grade Checker and Transit Person; High Scaler; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied airline).

LABO0292-008 06/01/2021

ISLAND, SAN JUAN, SKAGIT, SNOHOMISH, AND WHATCOM COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 28.75	13.19
GROUP 2.....	\$ 32.96	13.19
GROUP 3.....	\$ 41.29	13.19
GROUP 4.....	\$ 42.29	13.19
GROUP 5.....	\$ 42.98	13.19

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

ZONE 1 - Projects within 25 radius miles of the respective city hall
 ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
 ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$1.00
 ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
 ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

LABO0335-001 06/01/2021

CLARK, COWLITZ, KLICKITAT, PACIFIC (SOUTH OF A STRAIGHT LINE MADE BY EXTENDING THE NORTH BOUNDARY LINE OF WAHKIAKUM COUNTY WEST TO THE PACIFIC OCEAN), SKAMANIA AND WAHKIAKUM COUNTIES

	Rates	Fringes
Laborers:		
ZONE 1:		
GROUP 1.....	\$ 36.59	13.19
GROUP 2.....	\$ 37.34	13.19
GROUP 3.....	\$ 37.91	13.19
GROUP 4.....	\$ 38.39	13.19
GROUP 5.....	\$ 33.47	13.19
GROUP 6.....	\$ 30.43	13.19
GROUP 7.....	\$ 26.40	13.19

Zone Differential (Add to Zone 1 rates):
 Zone 2 \$ 0.65
 Zone 3 - 1.15
 Zone 4 - 1.70
 Zone 5 - 2.75

BASE POINTS: LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city all.
 ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.
 ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.
 ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.
 ZONE 5: More than 80 miles from the respective city hall.

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Plant Laborers; Asphalt Spreaders; Batch Weighman; Broomers; Brush Burners and Cutters; Car and Truck Loaders; Carpenter Tender; Change-House Man or Dry Shack Man; Choker Setter; Clean-up Laborers; Curing, Concrete; Demolition, Wrecking and Moving Laborers; Dumpers, road oiling crew; Dumpmen (for grading crew); Elevator Feeders; Median Rail Reference Post, Guide Post, Right of Way Marker; Fine Graders; Fire Watch; Form Strippers (not swinging stages); General Laborers; Hazardous Waste Worker; Leverman or Aggregate Spreader (Flaherty and similar types); Loading Spotters; Material Yard Man (including electrical); Pittsburgh Chipper Operator or Similar Types; Railroad Track Laborers; Ribbon Setters (including steel forms); Rip Rap Man (hand placed); Road Pump Tender; Sewer Labor; Signalman; Skipman; Slopers; Spraymen; Stake Chaser; Stockpiler; Tie Back Shoring; Timber Faller and Bucker (hand labor); Toolroom Man (at job site); Tunnel Bullgang (above ground); Weight-Man- Crusher (aggregate when used)

GROUP 2: Applicator (including pot power tender for same), applying protective material by hand or nozzle on utility lines or storage tanks on project; Brush Cutters (power saw); Burners; Choker Splicer; Clary Power Spreader and similar types; Clean- up Nozzleman-Green Cutter (concrete, rock, etc.); Concrete Power Buggyman; Concrete Laborer; Crusher Feeder; Demolition and Wrecking Charred Materials; Gunite Nozzleman Tender; Gunite or Sand Blasting Pot Tender; Handlers or Mixers of all Materials of an irritating nature (including cement and lime); Tool Operators (includes but not limited to: Dry Pack Machine; Jackhammer; Chipping Guns; Paving Breakers); Pipe Doping and Wrapping; Post Hole Digger, air, gas or electric; Vibrating Screed; Tampers; Sand Blasting (Wet); Stake-Setter; Tunnel-Muckers, Brakemen, Concrete Crew, Bullgang (underground)

GROUP 3: Asbestos Removal; Bit Grinder; Drill Doctor; Drill Operators, air tracks, cat drills, wagon drills, rubber-mounted drills, and other similar types including at crusher plants; Gunite Nozzleman; High Scalers, Strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping); Manhole Builder; Powdermen; Concrete Saw Operator; Pwdermen; Power Saw Operators (Bucking and Falling); Pumpcrete Nozzlemen; Sand Blasting (Dry); Sewer Timberman; Track Liners, Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks, Tugger Operator; Tunnel-Chuck Tenders, Nippers and Timbermen; Vibrator; Water Blaster

GROUP 4: Asphalt Raker; Concrete Saw Operator (walls); Concrete Nozzelman; Grade Checker; Pipelayer; Laser Beam (pipelaying)-applicable when employee assigned to move, set up, align; Laser Beam; Tunnel Miners; Motorman-Dinky Locomotive-Tunnel; Powderman-Tunnel; Shield Operator-Tunnel

GROUP 5: Traffic Flaggers

GROUP 6: Fence Builders

GROUP 7: Landscaping or Planting Laborers

LABO0335-019 06/01/2021

	Rates	Fringes
Hod Carrier.....	\$ 39.28	13.19

LABO0348-003 06/10/2021

CHELAN, DOUGLAS (W OF 12TH MERIDIAN), KITTITAS, AND YAKIMA COUNTIES

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 24.47	13.19
GROUP 2.....	\$ 28.11	13.19
GROUP 3.....	\$ 30.79	13.19
GROUP 4.....	\$ 31.54	13.19
GROUP 5.....	\$ 32.09	13.19

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

ZONE 1 - Projects within 25 radius miles of the respective city hall
 ZONE 2 - More than 25 but less than 45 radius miles from the respective city hall
 ZONE 3 - More than 45 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$1.00
 ZONE 3 - \$1.30

BASE POINTS: CHELAN, SUNNYSIDE, WENATCHEE, AND YAKIMA

ZONE 1 - Projects within 25 radius miles of the respective city hall
 ZONE 2 - More than 25 radius miles from the respective city hall

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):
 ZONE 2 - \$2.25

LABORERS CLASSIFICATIONS

GROUP 1: Landscaping and Planting; Watchman; Window Washer/Cleaner (detail clean-up, such as but not limited to cleaning floors, ceilings, walls, windows, etc., prior to final acceptance by the owner)

GROUP 2: Batch Weighman; Crusher Feeder; Fence Laborer; Flagman; Pilot Car

GROUP 3: General Laborer; Air, Gas, or Electric Vibrating Screed; Asbestos Abatement Laborer; Ballast Regulator Machine; Brush Cutter; Brush Hog Feeder; Burner; Carpenter Tender; Cement Finisher Tender; Change House or Dry Shack; Chipping Gun (under 30 lbs.); Choker Setter; Chuck Tender; Clean-up Laborer; Concrete Form Stripper; Curing Laborer; Demolition (wrecking and moving including charred material); Ditch Digger; Dump Person; Fine Graders; Firewatch; Form Setter; Gabian Basket Builders; Grout Machine Tender; Grinders; Guardrail Erector; Hazardous Waste Worker (Level C: uses a chemical "splash suit" and air purifying respirator); Maintenance Person; Material Yard Person; Pot Tender; Rip Rap Person; Riggers; Scale Person; Sloper Sprayer; Signal Person; Stock Piler; Stake Hopper; Toolroom Man (at job site); Topper-Tailer; Track Laborer; Truck Spotter; Vinyl Seamer

GROUP 4: Cement Dumper-Paving; Chipping Gun (over 30 lbs.); Clary Power Spreader; Concrete Dumper/Chute Operator; Concrete Saw Operator; Drill Operator (hydraulic, diamond, aiartrac); Faller and Bucker Chain Saw; Grade Checker and Transit Person; Groutmen (pressure) including post tension beams; Hazardous Waste Worker (Level B: uses same respirator protection as Level A. A supplied air line is provided in conjunction with a chemical "splash suit"); High Scaler; Jackhammer; Laserbeam Operator; Manhole Builder-Mudman; Nozzleman (concrete pump, green cutter when using combination of high pressure air and water on concrete and rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster); Pavement Breaker; Pipe Layer and Caulker; Pipe Pot Tender; Pipe Reliner (not insert type); Pipe Wrapper; Power Jacks; Railroad Spike Puller-Power; Raker-Asphalt; Rivet Buster; Rodder; Sloper (over 20 ft); Spreader (concrete); Tamper and Similar electric, air and glas operated tool; Timber Person-sewer (lagger shorer and cribber); Track Liner Power; Tugger Operator; Vibrator; Well Point Laborer

GROUP 5: Caisson Worker; Miner; Mortarman and Hodcarrier; Powderman; Re-Timberman; Hazardous Waste Worker (Level A: utilizes a fully encapsulated suit with a self-contained breathing apparatus or a supplied air line).

PAIN0005-002 07/01/2021

STATEWIDE EXCEPT CLARK, COWLITZ, KLUCKITAT, PACIFIC (SOUTH),
SKAMANIA, AND WAHAKIAKUM COUNTIES

	Rates	Fringes
Painters:		
STRIPERS.....	\$ 32.36	18.15

PAIN0005-004 03/01/2009

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

	Rates	Fringes
PAINTER.....	\$ 20.82	7.44

* PAIN0005-006 07/01/2018

ADAMS, ASOTIN; BENTON AND FRANKLIN (EXCEPT HANFORD SITE);
CHELAN, COLUMBIA, DOUGLAS, FERRY, GARFIELD, GRANT, KITTITAS,
LINCOLN, OKANOGAN, PEND OREILLE, SPOKANE, STEVENS, WALLA WALLA,
WHITMAN AND YAKIMA COUNTIES

	Rates	Fringes
PAINTER		
Application of Cold Tar		
Products, Epoxies, Polyure		
thanes, Acids, Radiation		
Resistant Material, Water		
and Sandblasting.....	\$ 30.19	11.71
Over 30'/Swing Stage Work..	\$ 22.20	7.98
Brush, Roller, Striping,		
Steam-cleaning and Spray....	\$ 22.94	11.61
Lead Abatement, Asbestos		
Abatement.....	\$ 21.50	7.98

*\$.70 shall be paid over and above the basic wage rates
listed for work on swing stages and high work of over 30
feet.

PAIN0055-003 07/01/2020

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

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 26.56	13.40
Spray and Sandblasting.....	\$ 26.56	13.40

All high work over 60 ft. = base rate + \$0.75

PAIN0055-006 03/01/2020

CLARK, COWLITZ, KLICKITAT, SKAMANIA and WAHKIAKUM COUNTIES

	Rates	Fringes
Painters:		
HIGHWAY & PARKING LOT		
STRIPER.....	\$ 35.87	13.40

PLAS0072-004 06/01/2020

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY,
FRANKLIN, GARFIELD, GRANT, KITTITAS, LINCOLN, OKANOGAN, PEND
OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN, AND YAKIMA
COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1.....	\$ 31.30	15.53

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

BASE POINTS: Spokane, Pasco, Lewiston; Wenatchee

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

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

PLAS0528-001 06/01/2021

CLALLAM, COWLITZ, GRAYS HARBOR, ISLAND, JEFFERSON, KING,
KITSAP, LEWIS, MASON, PACIFIC, PIERCE, SAN JUAN, SKAGIT,
SNOHOMISH, THURSTON, WAHKIAKUM AND WHATCOM COUNTIES

	Rates	Fringes
CEMENT MASON		
CEMENT MASON.....	\$ 47.87	19.04
COMPOSITION, TROWEL MACHINE, GRINDER, POWER TOOLS, GUNNITE NOZZLE.....	\$ 48.37	19.04
TROWELING MACHINE OPERATOR ON COMPOSITION.....	\$ 48.37	19.04

PLAS0555-002 07/01/2019

CLARK, KLICKITAT AND SKAMANIA COUNTIES

ZONE 1:

	Rates	Fringes
CEMENT MASON		
CEMENT MASONS DOING BOTH COMPOSITION/POWER MACHINERY AND SUSPENDED/HANGING SCAFFOLD..	\$ 37.32	18.77
CEMENT MASONS ON SUSPENDED, SWINGING AND/OR HANGING SCAFFOLD.....	\$ 36.58	18.77
CEMENT MASONS.....	\$ 35.85	18.77
COMPOSITION WORKERS AND POWER MACHINERY OPERATORS...	\$ 36.58	18.77

Zone Differential (Add To Zone 1 Rates):

Zone 2 - \$0.65
Zone 3 - 1.15
Zone 4 - 1.70
Zone 5 - 3.00

BASE POINTS: BEND, CORVALLIS, EUGENE, MEDFORD, PORTLAND,
SALEM, THE DALLES, VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall
ZONE 2: More than 30 miles but less than 40 miles from the
respective city hall.
ZONE 3: More than 40 miles but less than 50 miles from the
respective city hall.
ZONE 4: More than 50 miles but less than 80 miles from the
respective city hall.
ZONE 5: More than 80 miles from the respective city hall

TEAM0037-002 06/01/2020

CLARK, COWLITZ, KLICKITAT, PACIFIC (South of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean), SKAMANIA, AND WAHKIAKUM COUNTIES

	Rates	Fringes
Truck drivers:		
ZONE 1		
GROUP 1.....	\$ 29.33	16.40
GROUP 2.....	\$ 29.46	16.40
GROUP 3.....	\$ 29.60	16.40
GROUP 4.....	\$ 29.89	16.40
GROUP 5.....	\$ 30.03	16.40
GROUP 6.....	\$ 30.31	16.40
GROUP 7.....	\$ 30.53	16.40

Zone Differential (Add to Zone 1 Rates):

- Zone 2 - \$0.65
- Zone 3 - 1.15
- Zone 4 - 1.70
- Zone 5 - 2.75

BASE POINTS: ASTORIA, THE DALLES, LONGVIEW AND VANCOUVER

ZONE 1: Projects within 30 miles of the respective city hall.

ZONE 2: More than 30 miles but less than 40 miles from the respective city hall.

ZONE 3: More than 40 miles but less than 50 miles from the respective city hall.

ZONE 4: More than 50 miles but less than 80 miles from the respective city hall.

ZONE 5: More than 80 miles from the respective city hall.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: A Frame or Hydra lift truck w/load bearing surface; Articulated Dump Truck; Battery Rebuilders; Bus or Manhaul Driver; Concrete Buggies (power operated); Concrete Pump Truck; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations there of: up to and including 10 cu. yds.; Lift Jitneys, Fork Lifts (all sizes in loading, unloading and transporting material on job site); Loader and/or Leverman on Concrete Dry Batch Plant (manually operated); Pilot Car; Pickup Truck; Solo Flat Bed and misc. Body Trucks, 0-10 tons; Truck Tender; Truck Mechanic Tender; Water Wagons (rated capacity) up to 3,000 gallons; Transit Mix and Wet or Dry Mix - 5 cu. yds. and under; Lubrication Man, Fuel Truck Driver, Tireman, Wash Rack, Steam Cleaner or combinations; Team Driver; Slurry Truck Driver or Leverman; Tireman

GROUP 2: Boom Truck/Hydra-lift or Retracting Crane; Challenger; Dumpsters or similar equipment all sizes; Dump Trucks/Articulated Dumps 6 cu to 10 cu.; Flaherty Spreader Driver or Leverman; Lowbed Equipment, Flat Bed Semi-trailer or doubles transporting equipment or wet or dry materials; Lumber Carrier, Driver-Straddle Carrier (used in loading, unloading and transporting of materials on job site); Oil Distributor Driver or Leverman; Transit mix and wet or dry mix trucks: over 5 cu. yds. and including 7 cu. yds.; Vacuum Trucks; Water truck/Wagons (rated capacity) over 3,000 to 5,000 gallons

GROUP 3: Ammonia Nitrate Distributor Driver; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 10 cu. yds. and including 30 cu. yds. includes Articulated Dump Trucks; Self-Propelled Street Sweeper; Transit mix and wet or dry mix truck: over 7 cu yds. and including 11 cu yds.; Truck Mechanic-Welder-Body Repairman; Utility and Clean-up Truck; Water Wagons (rated capacity) over 5,000 to 10,000 gallons

GROUP 4: Asphalt Burner; Dump Trucks, side, end and bottom dumps, including Semi-Trucks and Trains or combinations thereof: over 30 cu. yds. and including 50 cu. yds. includes Articulated Dump Trucks; Fire Guard; Transit Mix and Wet or Dry Mix Trucks, over 11 cu. yds. and including 15 cu. yds.; Water Wagon (rated capacity) over 10,000 gallons to 15,000 gallons

GROUP 5: Composite Crewman; Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 50 cu. yds. and including 60 cu. yds. includes Articulated Dump Trucks

GROUP 6: Bulk Cement Spreader w/o Auger; Dry Pre-Batch concrete Mix Trucks; Dump trucks, side, end and bottom dumps, including Semi Trucks and Trains of combinations thereof: over 60 cu. yds. and including 80 cu. yds., and includes Articulated Dump Trucks; Skid Truck

GROUP 7: Dump Trucks, side, end and bottom dumps, including Semi Trucks and Trains or combinations thereof: over 80 cu. yds. and including 100 cu. yds., includes Articulated Dump Trucks; Industrial Lift Truck (mechanical tailgate)

* TEAM0174-001 06/01/2020

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

	Rates	Fringes
Truck drivers:		
ZONE A:		
GROUP 1:.....	\$ 42.88	20.92
GROUP 2:.....	\$ 42.04	20.92
GROUP 3:.....	\$ 39.23	20.92
GROUP 4:.....	\$ 34.26	20.92
GROUP 5:.....	\$ 42.43	20.92

ZONE B (25-45 miles from center of listed cities*): Add \$.70 per hour to Zone A rates.

ZONE C (over 45 miles from centr of listed cities*): Add \$1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM	CENTRALIA	RAYMOND	OLYMPIA
EVERETT	SHELTON	ANACORTES	BELLEVUE
SEATTLE	PORT ANGELES	MT. VERNON	KENT
TACOMA	PORT TOWNSEND	ABERDEEN	BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - "A-frame or Hydralift" trucks and Boom trucks or similar equipment when "A" frame or "Hydralift" and Boom truck or similar equipment is used; Buggymobile; Bulk Cement Tanker; Dumpsters and similar equipment, Tournorockers, Tournowagon, Tournotrailer, Cat DW series, Terra Cobra, Le Tourneau, Westinghouse, Athye Wagon, Euclid Two and Four-Wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity: Over 30 yards \$.15 per hour additional for each 10 yard increment; Explosive Truck (field mix) and similar equipment; Hyster Operators (handling bulk loose aggregates); Lowbed and Heavy Duty Trailer; Road Oil Distributor Driver; Spreader, Flaherty Transit mix used exclusively in heavy construction; Water Wagon and Tank Truck-3,000 gallons and over capacity

GROUP 2 - Bulllifts, or similar equipment used in loading or unloading trucks, transporting materials on job site; Dumpsters, and similar equipment, Tournorockers, Tournowagon, Turnotrailer, Cat. D.W. Series, Terra Cobra, Le Tourneau, Westinghouse, Athye wagon, Euclid two and four-wheeled power tractor with trailer and similar top-loaded equipment transporting material: Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Flatbed (Dual Rear Axle); Grease Truck, Fuel Truck, Greaser, Battery Service Man and/or Tire Service Man; Leverman and loader at bunkers and batch plants; Oil tank transport; Scissor truck; Slurry Truck; Sno-Go and similar equipment; Swampers; Straddler Carrier (Ross, Hyster) and similar equipment; Team Driver; Tractor (small, rubber-tired) (when used within Teamster jurisdiction); Vacuum truck; Water Wagon and Tank trucks-less than 3,000 gallons capacity; Winch Truck; Wrecker, Tow truck and similar equipment

GROUP 3 - Flatbed (single rear axle); Pickup Sweeper; Pickup Truck. (Adjust Group 3 upward by \$2.00 per hour for onsite work only)

GROUP 4 - Escort or Pilot Car

GROUP 5 - Mechanic

HAZMAT PROJECTS

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

LEVEL C: +\$.25 per hour - This level uses an air purifying respirator or additional protective clothing.

LEVEL B: +\$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."

LEVEL A: +\$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

TEAM0690-004 01/01/2019

ADAMS, ASOTIN, BENTON, CHELAN, COLUMBIA, DOUGLAS, FERRY,
FRANKLIN, GARFIELD, GRANT KITTITAS, LINCOLN, OKANOGAN, PEND
OREILLE, SPOKANE, STEVENS, WALLA WALLA, WHITMAN AND YAKIMA
COUNTIES

	Rates	Fringes
Truck drivers: (AREA 1: SPOKANE ZONE CENTER: Adams, Chelan, Douglas, Ferry, Grant, Kittitas, Lincoln, Okanogan, Pen Oreille, Spokane, Stevens, and Whitman Counties		
AREA 1: LEWISTON ZONE CENTER: Asotin, Columbia, and Garfield Counties		
AREA 2: PASCO ZONE CENTER: Benton, Franklin, Walla Walla and Yakima Counties)		
AREA 1:		
GROUP 1.....	\$ 23.91	17.40
GROUP 2.....	\$ 26.18	17.40
GROUP 3.....	\$ 26.68	17.40
GROUP 4.....	\$ 27.01	17.40
GROUP 5.....	\$ 27.12	17.40
GROUP 6.....	\$ 27.29	17.40
GROUP 7.....	\$ 27.82	17.40
GROUP 8.....	\$ 28.18	17.40
AREA 2:		
GROUP 1.....	\$ 26.05	17.40
GROUP 2.....	\$ 28.69	17.40
GROUP 3.....	\$ 28.80	17.40
GROUP 4.....	\$ 29.13	17.40
GROUP 5.....	\$ 29.24	17.40
GROUP 6.....	\$ 29.24	17.40
GROUP 7.....	\$ 29.78	17.40
GROUP 8.....	\$ 30.10	17.40

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

BASE POINTS: Spokane, Pasco, Lewiston

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

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

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Escort Driver or Pilot Car; Employee Haul; Power Boat Hauling Employees or Material

GROUP 2: Fish Truck; Flat Bed Truck; Fork Lift (3000 lbs. and under); Leverperson (loading trucks at bunkers); Trailer Mounted Hydro Seeder and Mulcher; Seeder & Mulcher; Stationary Fuel Operator; Tractor (small, rubber-tired, pulling trailer or similar equipment)

GROUP 3: Auto Crane (2000 lbs. capacity); Buggy Mobile & Similar; Bulk Cement Tanks & Spreader; Dumptor (6 yds. & under); Flat Bed Truck with Hydraulic System; Fork Lift (3001-16,000 lbs.); Fuel Truck Driver, Steamcleaner & Washer; Power Operated Sweeper; Rubber-tired Tunnel Jumbo; Scissors Truck; Slurry Truck Driver; Straddle Carrier (Ross, Hyster, & similar); Tireperson; Transit Mixers & Truck Hauling Concrete (3 yd. to & including 6 yds.); Trucks, side, end, bottom & articulated end dump (3 yards to and including 6 yds.); Warehouseperson (to include shipping & receiving); Wrecker & Tow Truck

GROUP 4: A-Frame; Burner, Cutter, & Welder; Service Greaser; Trucks, side, end, bottom & articulated end dump (over 6 yards to and including 12 yds.); Truck Mounted Hydro Seeder; Warehouseperson; Water Tank truck (0-8,000 gallons)

GROUP 5: Dumptor (over 6 yds.); Lowboy (50 tons & under); Self-loading Roll Off; Semi-Truck & Trailer; Tractor with Steer Trailer; Transit Mixers and Trucks Hauling Concrete (over 6 yds. to and including 10 yds.); Trucks, side, end, bottom and end dump (over 12 yds. to & including 20 yds.); Truck-Mounted Crane (with load bearing surface either mounted or pulled, up to 14 ton); Vacuum Truck (super sucker, guzzler, etc.)

GROUP 6: Flaherty Spreader Box Driver; Flowboys; Fork Lift (over 16,000 lbs.); Dumps (Semi-end); Mechanic (Field); Semi-end Dumps; Transfer Truck & Trailer; Transit Mixers & Trucks Hauling Concrete (over 10 yds. to & including 20 yds.); Trucks, side, end, bottom and articulated end dump (over 20 yds. to & including 40 yds.); Truck and Pup; Tournarocker, DWs & similar with 2 or more 4 wheel-power tractor with trailer, gallonage or yardage scale, whichever is greater Water Tank Truck (8,001- 14,000 gallons); Lowboy(over 50 tons)

GROUP 7: Oil Distributor Driver; Stringer Truck (cable operated trailer); Transit Mixers & Trucks Hauling Concrete (over 20 yds.); Truck, side, end, bottom end dump (over 40 yds. to & including 100 yds.); Truck Mounted Crane (with load bearing surface either mounted or pulled (16 through 25 tons);

GROUP 8: Prime Movers and Stinger Truck; Trucks, side, end, bottom and articulated end dump (over 100 yds.); Helicopter Pilot Hauling Employees or Materials

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

LEVEL C-D: - \$.50 PER HOUR (This is the lowest level of protection. This level may use an air purifying respirator or additional protective clothing.

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

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

NOTE:

Trucks Pulling Equipment Trailers: shall receive \$.15/hour over applicable truck rate

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

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

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the

classifications was union data. EXAMPLE: UAVG-OH-0010
08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

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

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

The request should be accompanied by a full statement of the interested party's position and by any information (wage

payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

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

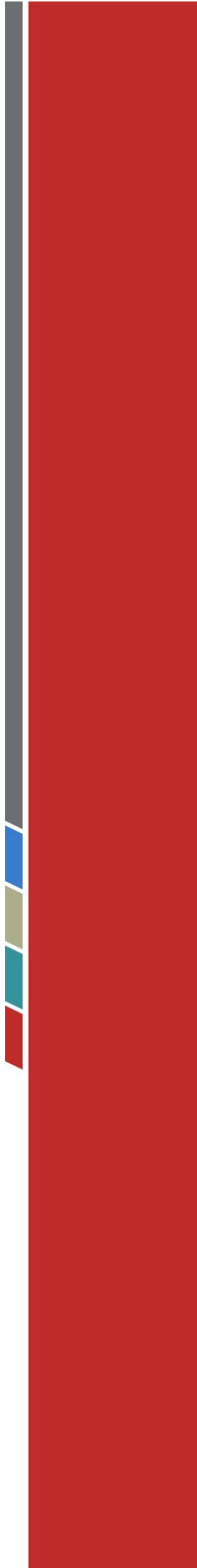
Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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

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END OF GENERAL DECISIO"

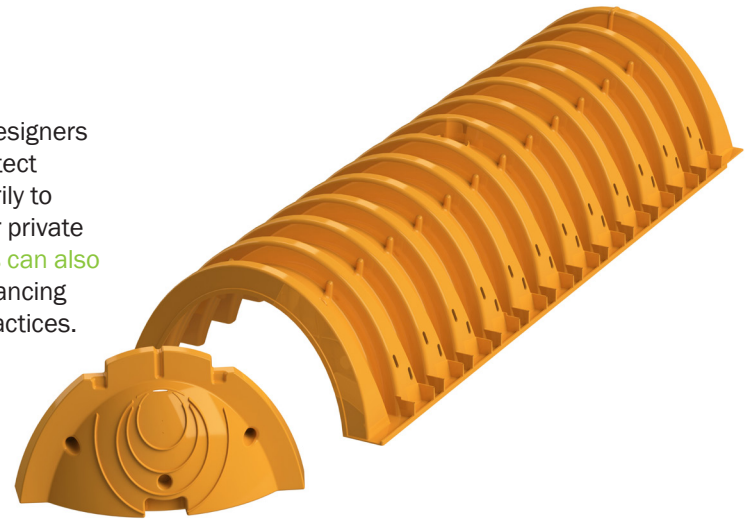
Appendix E

Chamber System



SC-310 CHAMBER

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private (commercial) and public applications. StormTech chambers can also be used in conjunction with Green Infrastructure, thus enhancing the performance and extending the service life of these practices.



STORMTECH SC-310 CHAMBER (not to scale)

Nominal Chamber Specifications

Size (L x W x H)
85.4" x 34.0" x 16.0"
2,170 mm x 864 mm x 406 mm

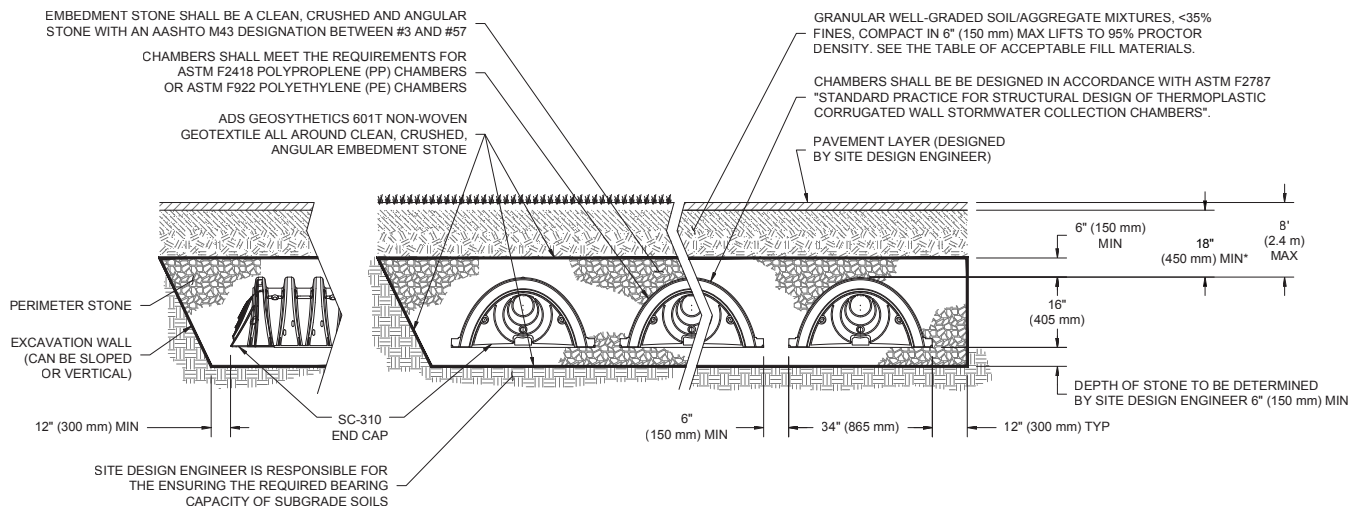
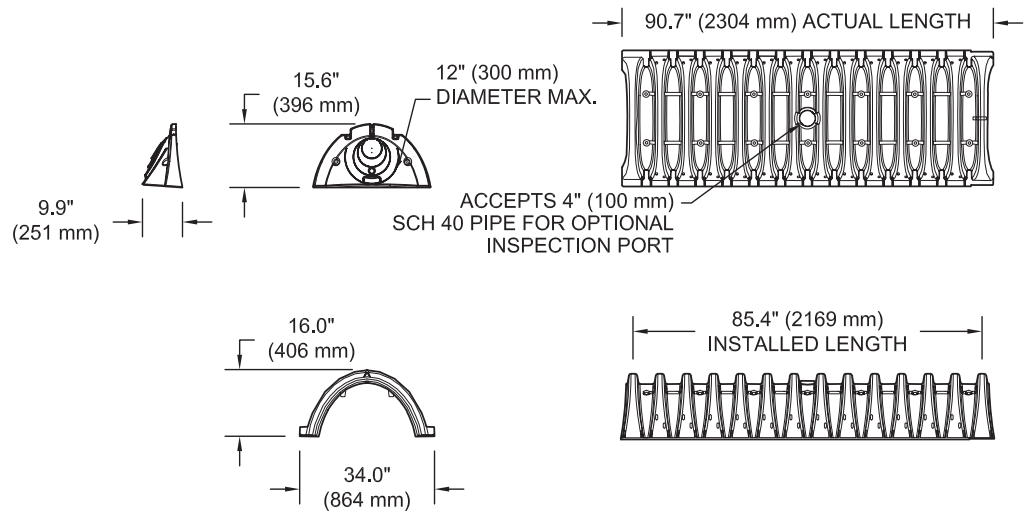
Chamber Storage
14.7 ft³ (0.42 m³)

Min. Installed Storage*
31.0 ft³ (0.88 m³)

Weight
37.0 lbs (16.8 kg)

Shipping
41 chambers/pallet
108 end caps/pallet
18 pallets/truck

*Assumes 6" (150 mm) stone above and below chambers and 40% stone porosity.



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24" (600 mm).

SC-310 CUMULATIVE STORAGE VOLUMES PER CHAMBER

Assumes 40% Stone Porosity. Calculations are Based Upon a 6" (150 mm) Stone Base Under Chambers.

Depth of Water in System Inches (mm)	Cumulative Chamber Storage ft ³ (m ³)	Total System Cumulative Storage ft ³ (m ³)
28 (711)	↑ 14.70 (0.416)	31.00 (0.878)
27 (686)	↑ 14.70 (0.416)	30.21 (0.855)
26 (680)	Stone 14.70 (0.416)	29.42 (0.833)
25 (610)	Cover 14.70 (0.416)	28.63 (0.811)
24 (609)	↓ 14.70 (0.416)	27.84 (0.788)
23 (584)	↓ 14.70 (0.416)	27.05 (0.766)
22 (559)	14.70 (0.416)	26.26 (0.748)
21 (533)	14.64 (0.415)	25.43 (0.720)
20 (508)	14.49 (0.410)	24.54 (0.695)
19 (483)	14.22 (0.403)	23.58 (0.668)
18 (457)	13.68 (0.387)	22.47 (0.636)
17 (432)	12.99 (0.368)	21.25 (0.602)
16 (406)	12.17 (0.345)	19.97 (0.566)
15 (381)	11.25 (0.319)	18.62 (0.528)
14 (356)	10.23 (0.290)	17.22 (0.488)
13 (330)	9.15 (0.260)	15.78 (0.447)
12 (305)	7.99 (0.227)	14.29 (0.425)
11 (279)	6.78 (0.192)	12.77 (0.362)
10 (254)	5.51 (0.156)	11.22 (0.318)
9 (229)	4.19 (0.119)	9.64 (0.278)
8 (203)	2.83 (0.081)	8.03 (0.227)
7 (178)	1.43 (0.041)	6.40 (0.181)
6 (152)	↑ 0	4.74 (0.134)
5 (127)	0	3.95 (0.112)
4 (102)	Stone Foundation 0	3.16 (0.090)
3 (76)	0	2.37 (0.067)
2 (51)	↓ 0	1.58 (0.046)
1 (25)	0	0.79 (0.022)

Note: Add 0.79 ft³ (0.022 m³) of storage for each additional inch. (25 mm) of stone foundation.

STORAGE VOLUME PER CHAMBER FT³ (M³)

	Bare Chamber Storage ft ³ (m ³)	Chamber and Stone Foundation Depth in. (mm)		
		6 (150)	12 (300)	18 (450)
StormTech SC-310	14.7 (0.4)	31.0 (0.9)	35.7 (1.0)	40.4 (1.1)

Note: Assumes 6" (150 mm) of stone above chambers, 6" (150 mm) row spacing and 40% stone porosity.

AMOUNT OF STONE PER CHAMBER

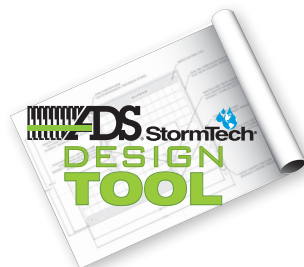
ENGLISH TONS (yds ³)	Stone Foundation Depth		
	6"	12"	18"
StormTech SC-310	2.1 (1.5 yd ³)	2.7 (1.9 yd ³)	3.4 (2.4 yd ³)
METRIC KILOGRAMS (m ³)	150 mm	300 mm	450 mm
StormTech SC-310	1830 (1.1 m ³)	2490 (1.5 m ³)	2990 (1.8 m ³)

Note: Assumes 6" (150 mm) of stone above, and between chambers.

VOLUME EXCAVATION PER CHAMBER YD³ (M³)

	Stone Foundation Depth		
	6" (150 mm)	12" (300 mm)	18" (450 mm)
StormTech SC-310	2.9 (2.2)	3.4 (2.6)	3.8 (2.9)

Note: Assumes 6" (150 mm) of row separation and 18" (450 mm) of cover. The volume of excavation will vary as the depth of the cover increases.



Working on a project?
Visit us at www.stormtech.com
and utilize the StormTech Design Tool

For more information on the StormTech SC-310 Chamber and other ADS products, please contact our Customer Service Representatives at 1-800-821-6710

THE MOST **ADVANCED** NAME IN WATER MANAGEMENT SOLUTIONS™

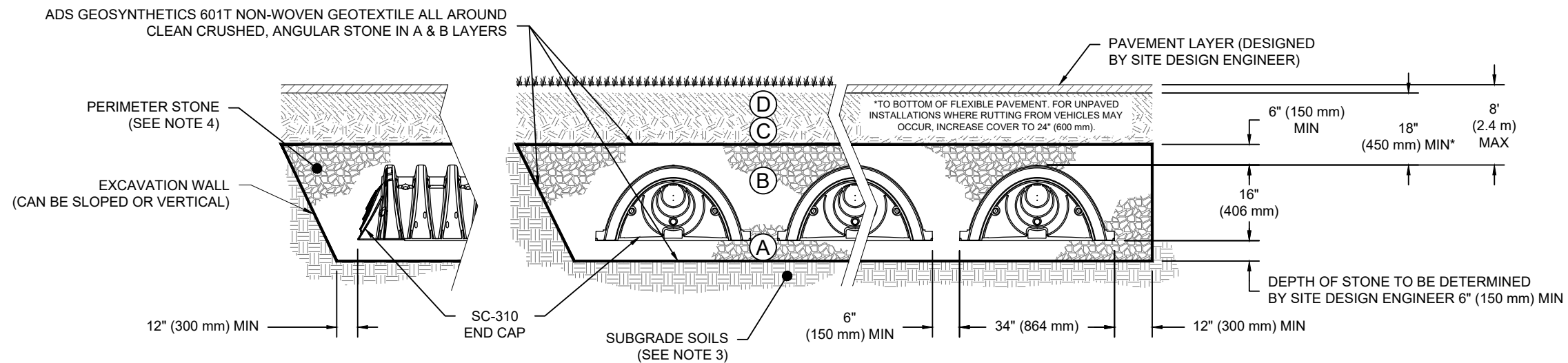
Advanced Drainage Systems, Inc.
4640 Trueman Blvd., Hilliard, OH 43026
1-800-821-6710 www.ads-pipe.com

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



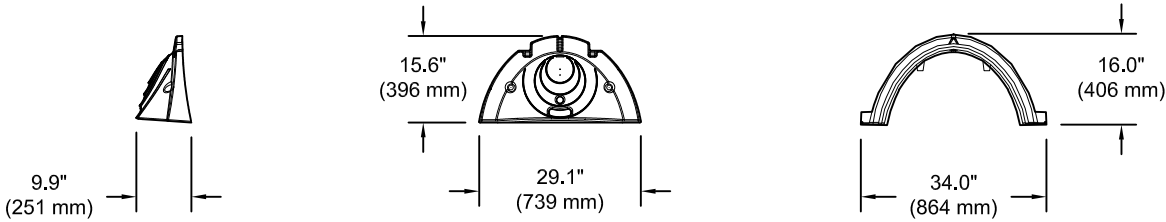
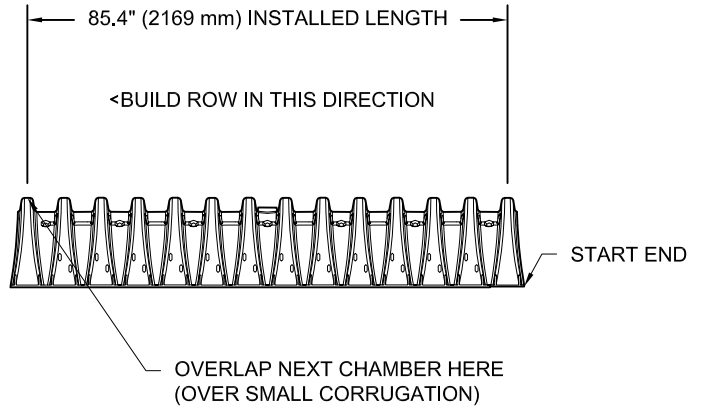
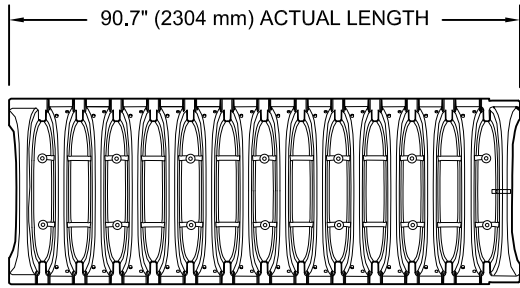
NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418-16a (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SC-310	STANDARD CROSS SECTION	DATE: 05-10-19	DRAWN: KR	CHECKED: KR
			PROJECT #:	
			DESCRIPTION	
			DATE	
			DRWN	
			CHKD	
 70 INWOOD ROAD, SUITE 3 ROCKY HILL CT 06867 860-525-8188 888-892-2694 WWW.STORMTECH.COM				
4640 TRUEMAN BLVD HILLIARD, OH 43026 ADVANCED DRAINAGE SYSTEMS, INC.				
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.				
1 SHEET		OF 1		

SC-310 TECHNICAL SPECIFICATION

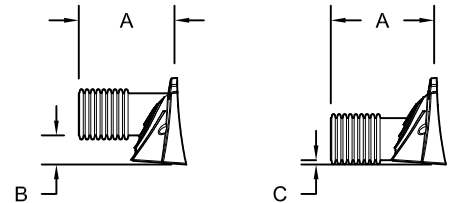
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4"	(864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET	(0.42 m ³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET	(0.88 m ³)
WEIGHT	35.0 lbs.	(16.8 kg)

*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS



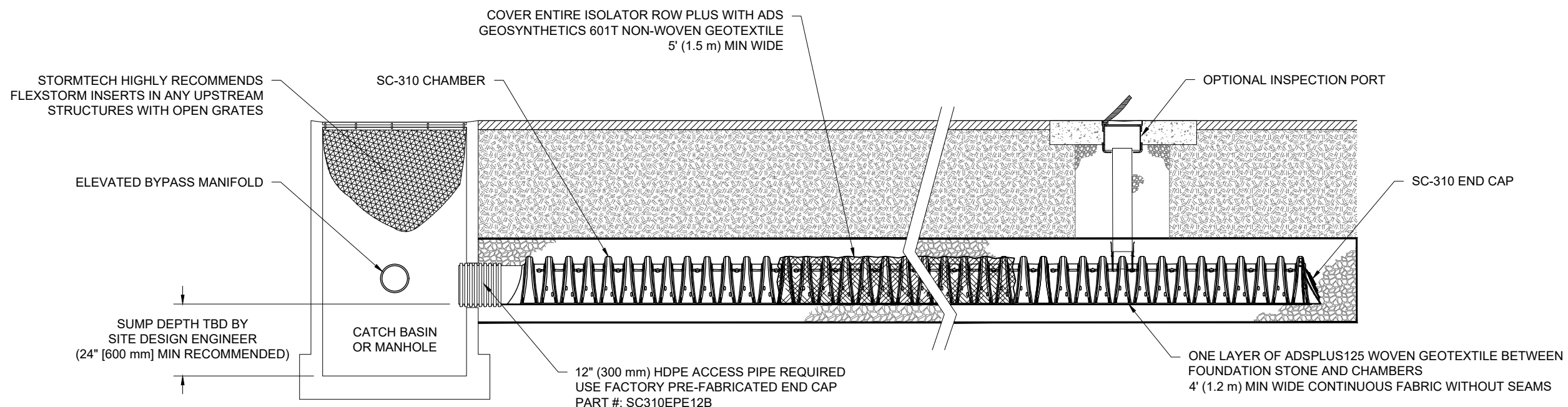
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
 PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
 PRE CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC			---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC			---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC			---	0.7" (18 mm)
SC310EPE12B	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL



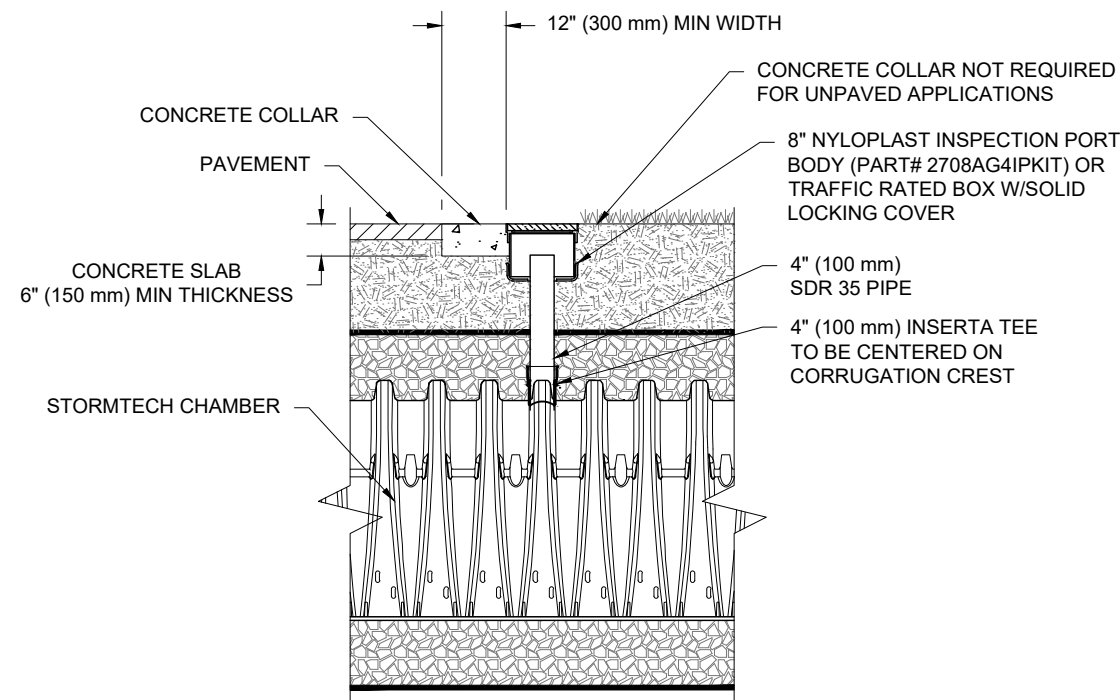
SC-310 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
 - A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR PLUS ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
 - A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT DETAIL
(SC SERIES CHAMBER)
NTS

SC-310	ISOLATOR ROW PLUS DETAILS
DATE: 08/26/20	DRAWN: ALI
PROJECT #: ----	CHECKED: ALI

DATE	DRWN	CHKD	DESCRIPTION

520 CROMWELL AVENUE | ROCKY HILL, CT | 06067
860-528-8188 | 866-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

Isolator[®] Row PLUS O&M Manual



THE ISOLATOR® ROW PLUS

INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row PLUS is a technique to inexpensively enhance Total Suspended Solids (TSS) and Total Phosphorus (TP) removal with easy access for inspection and maintenance.

THE ISOLATOR ROW PLUS

The Isolator Row PLUS is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-4500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row PLUS and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC-310-3 and SC-740 models) allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row PLUS protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

ADS geotextile fabric is placed between the stone and the Isolator Row PLUS chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber. The non-woven fabric is not required over the SC-160, DC-780, MC-3500 or MC-4500 models as these chambers do not have perforated side walls.

The Isolator Row PLUS is designed to capture the “first flush” runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole not only provides access to the Isolator Row PLUS but includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row PLUS bypass through a manifold to the other chambers. This is achieved with either an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row PLUS row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row PLUS. After Stormwater flows through the Isolator Row PLUS and into the rest of the StormTech chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row FLAMP™ (patent pending) is a flared end ramp apparatus that is attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance over time by enhancing outflow of solid debris that would otherwise collect at an end of the chamber. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row PLUS may be part of a treatment train system. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row PLUS is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

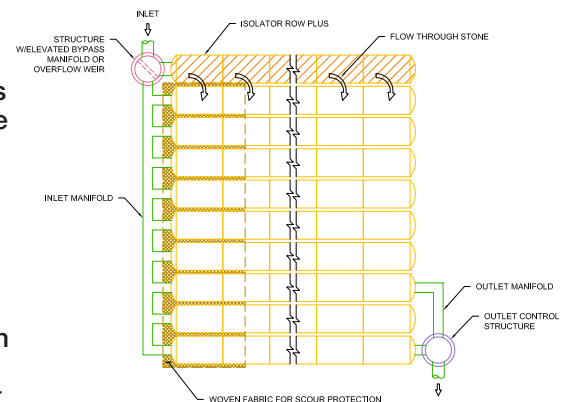
Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row PLUS.



Looking down the Isolator Row PLUS from the manhole opening, ADS PLUS Fabric is shown between the chamber and stone base.



StormTech Isolator Row PLUS with Overflow Spillway (not to scale)





ISOLATOR ROW PLUS INSPECTION/MAINTENANCE

INSPECTION

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row PLUS should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row PLUS incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row PLUS, clean-out should be performed.

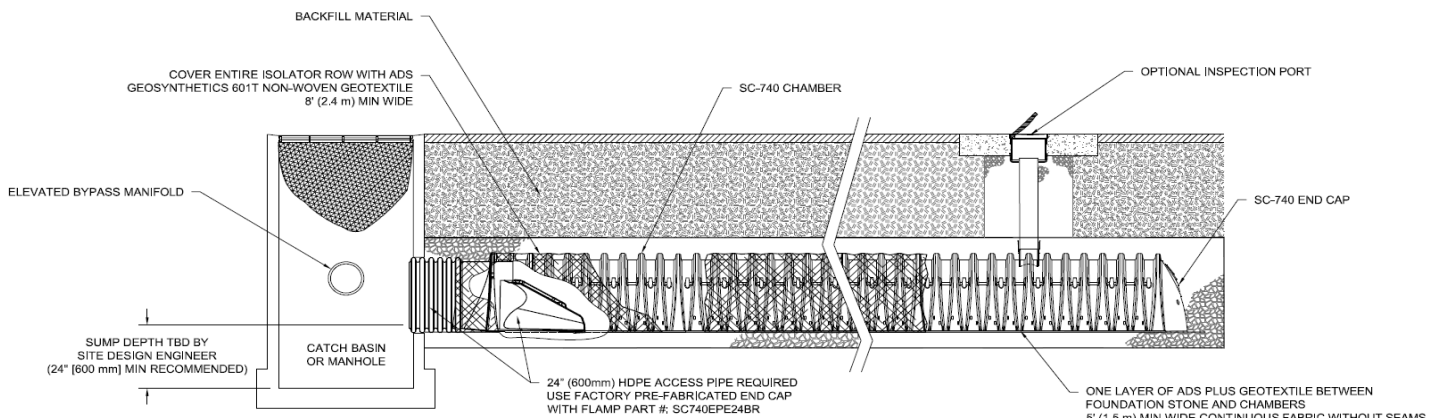
MAINTENANCE

The Isolator Row PLUS was designed to reduce the cost of periodic maintenance. By “isolating” sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row PLUS while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45° are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row PLUS up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Row PLUS that have ADS PLUS Fabric (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row PLUS (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-4500 chamber models and is not required over the entire Isolator Row PLUS.



ISOLATOR ROW PLUS STEP BY STEP MAINTENANCE PROCEDURES

STEP 1

Inspect Isolator Row PLUS for sediment.

- A) Inspection ports (if present)
 - i. Remove lid from floor box frame
 - ii. Remove cap from inspection riser
 - iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.
 - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Row PLUS
 - i. Remove cover from manhole at upstream end of Isolator Row PLUS
 - ii. Using a flashlight, inspect down Isolator Row PLUS through outlet pipe
 1. Mirrors on poles or cameras may be used to avoid a confined space entry
 2. Follow OSHA regulations for confined space entry if entering manhole
 - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

STEP 2

Clean out Isolator Row PLUS using the JetVac process.

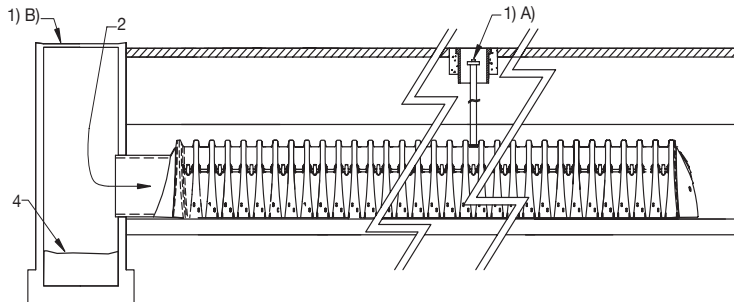
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

STEP 3

Replace all caps, lids and covers, record observations and actions.

STEP 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



SAMPLE MAINTENANCE LOG

Date	Stadia Rod Readings		Sediment Depth (1)-(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row PLUS, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

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Advanced Drainage Systems, Inc.
 4640 Trueman Blvd., Hilliard, OH 43026
 1-800-821-6710 www.ads-pipe.com



StormTech Construction Guide

REQUIRED MATERIALS AND EQUIPMENT LIST

- Acceptable fill materials per Table 1
- ADS Plus and non-woven geotextile fabrics
- StormTech solid end caps and pre-cored end caps
- StormTech chambers
- StormTech manifolds and fittings

IMPORTANT NOTES:

A. This installation guide provides the minimum requirements for proper installation of chambers. Non-adherence to this guide may result in damage to chambers during installation. Replacement of damaged chambers during or after backfilling is costly and very time consuming. It is recommended that all installers are familiar with this guide, and that the contractor inspects the chambers for distortion, damage and joint integrity as work progresses.

B. Use of a dozer to push embedment stone between the rows of chambers may cause damage to chambers and is not an acceptable backfill method. Any chambers damaged by using the “dump and push” method are not covered under the StormTech standard warranty.

C. Care should be taken in the handling of chambers and end caps. Avoid dropping, prying or excessive force on chambers during removal from pallet and initial placement.

Requirements for System Installation



Excavate bed and prepare subgrade per engineer’s plans.



Place non-woven geotextile over prepared soils and up excavation walls. Install underdrains if required.

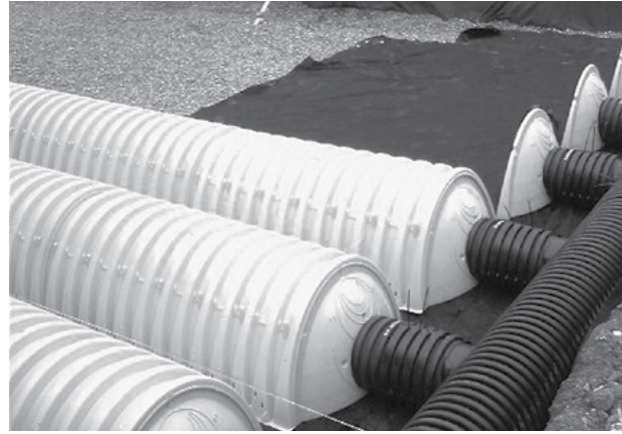


Place clean, crushed, angular stone foundation 6” (150 mm) min. Compact to achieve a flat surface.

Manifold, Scour Fabric and Chamber Assembly



Install manifolds and lay out ADS PLUS fabric at inlet rows [min. 12.5 ft (3.8 m)] at each inlet end cap. Place a continuous piece along entire length of Isolator® PLUS Row(s).



Align the first chamber and end cap of each row with inlet pipes. Contractor may choose to postpone stone placement around end chambers and leave ends of rows open for easy inspection of chambers during the backfill process.



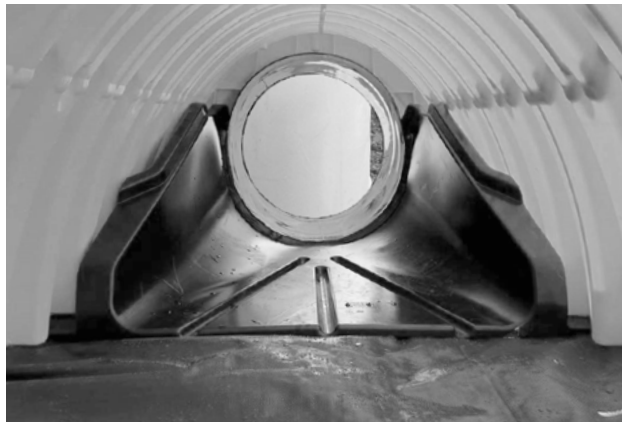
Continue installing chambers by overlapping chamber end corrugations. Chamber joints are labeled “Lower Joint – Overlap Here” and “Build this direction – Upper Joint” Be sure that the chamber placement does not exceed the reach of the construction equipment used to place the stone. Maintain minimum 6” (150 mm) spacing between rows.

Attaching the End Caps



Lift the end of the chamber a few inches off the ground. With the curved face of the end cap facing outward, place the end cap into the chamber's end corrugation.

Prefabricated End Caps



24” (600 mm) inlets are the maximum size that can fit into a SC-740/DC-780 end cap and must be prefabricated with a 24” (600 mm) pipe stub. SC-310 chambers with a 12” (300 mm) inlet pipe must use a prefabricated end cap with a 12” (300 mm) pipe stub. When used on an Isolator Row PLUS, these end caps will contain a welded FLAMP (flared end ramp) that will lay on top of the ADS PLUS fabric (shown above)

Isolator Row PLUS



Place a continuous layer of ADS PLUS fabric between the foundation stone and the Isolator Row PLUS chambers, making sure the fabric lays flat and extends the entire width of the chamber feet. Drape a strip of ADS non-woven geotextile over the row of chambers (not required over DC-780). This is the same type of non-woven geotextile used as a separation layer around the angular stone of the StormTech system. **2**

Initial Anchoring of Chambers – Embedment Stone

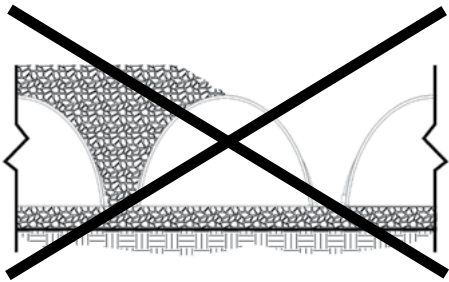


Initial embedment shall be spotted along the centerline of the chamber evenly anchoring the lower portion of the chamber. This is best accomplished with a stone conveyor or excavator reaching along the row.

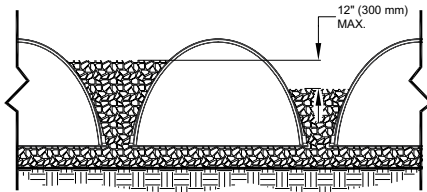


No equipment shall be operated on the bed at this stage of the installation. Excavators must be located off the bed. Dump trucks shall not dump stone directly on to the bed. Dozers or loaders are not allowed on the bed at this time.

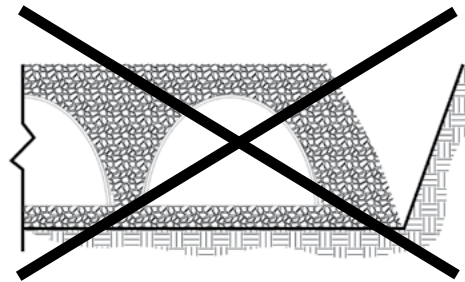
Backfill of Chambers – Embedment Stone



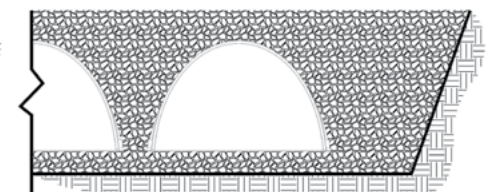
UNEVEN BACKFILL



EVEN BACKFILL



PERIMETER NOT BACKFILLED



PERIMETER FULLY BACKFILLED

Backfill chambers evenly. Stone column height should never differ by more than 12" (300 mm) between adjacent chamber rows or between chamber rows and perimeter.

Perimeter stone must be brought up evenly with chamber rows. Perimeter must be fully backfilled, with stone extended horizontally to the excavation wall.

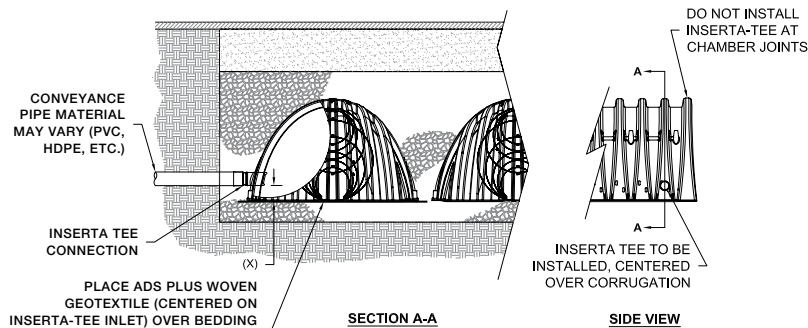
Backfill - Embedment Stone & Cover Stone



Continue evenly backfilling between rows and around perimeter until embedment stone reaches tops of chambers. Perimeter stone must extend horizontally to the excavation wall for both straight or sloped sidewalls. **Only after chambers have been backfilled to top of chamber and with a minimum 6" (150 mm) of cover stone on top of chambers can small dozers be used over the chambers for backfilling remaining cover stone.**

Small dozers and skid loaders may be used to finish grading stone backfill in accordance with ground pressure limits in Table 2. They must push material parallel to rows only. Never push perpendicular to rows. StormTech recommends that the contractor inspect chambers before placing final backfill. Any chambers damaged by construction shall be removed and replaced.

Inserta Tee Detail



PLACE ADS PLUS WOVEN GEOTEXTILE (CENTERED ON INSERTA-TEE INLET) OVER BEDDING STONE FOR SCOUR PROTECTION AT SIDE INLET CONNECTIONS. GEOTEXTILE MUST EXTEND 6" (150 mm) PAST CHAMBER FOOT

NOTE:
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.

CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 36, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON.

Final Backfill of Chambers – Fill Material



Install non-woven geotextile over stone. Geotextile must overlap 24" (600 mm) min. where edges meet. Compact each lift of backfill as specified in the site design engineer's drawings. Roller travel parallel with rows.

StormTech Isolator Row PLUS Detail

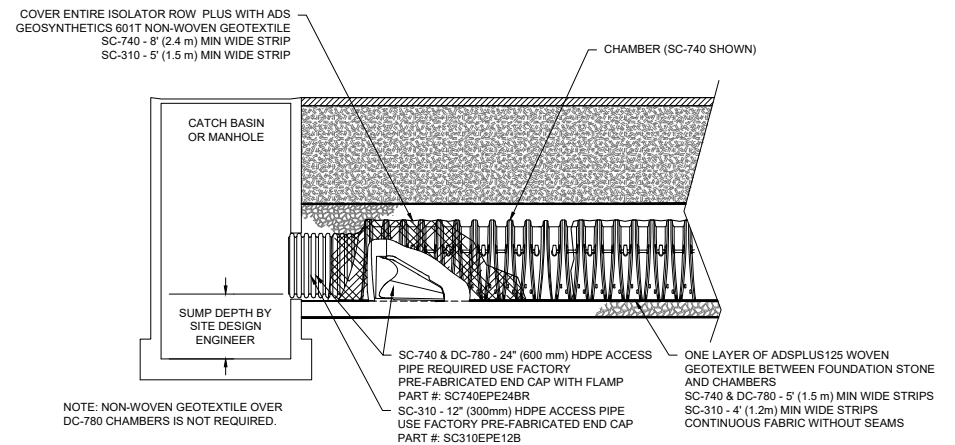


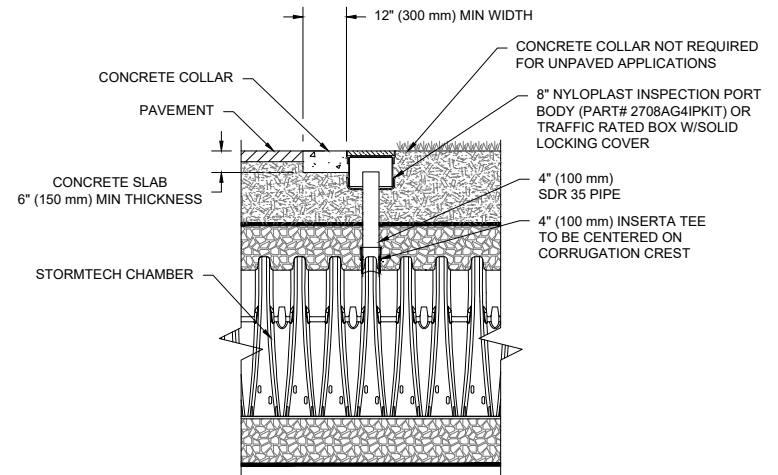
Table 1- Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation ¹	Compaction/Density Requirement
(D) Final Fill: Fill Material for layer 'D' starts from the top of the 'C' layer to the bottom of flexible pavement or unpaved finished grade above. Note that the pavement subbase may be part of the 'D' layer.	Any soil/rock materials, native soils or per engineer's plans. Check plans for pavement subgrade requirements.	N/A	Prepare per site design engineer's plans. Paved installations may have stringent material and preparation requirements.
(C) Initial Fill: Fill Material for layer 'C' starts from the top of the embedment stone ('B' layer) to 18" (450 mm) above the top of the chamber. Note that pavement subbase may be part of the 'C' layer.	Granular well-graded soil/aggregate mixtures, <35% fines or processed aggregate. Most pavement subbase materials can be used in lieu of this layer.	AASHTO M45 A-1, A-2-4, A-3 or AASHTO M431 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after min. 12" (300 mm) of material over the chambers is reached. Compact additional layers in 6" (150 mm) max. lifts to a min. 95% Proctor density for well-graded material and 95% relative density for processed aggregate materials. Roller gross vehicle weight not to exceed 12,000 lbs (53 kN). Dynamic force not to exceed 20,000 lbs (89 kN)
(B) Embedment Stone: Embedment Stone surrounding chambers from the foundation stone to the 'C' layer above.	Clean, crushed, angular stone	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	No compaction required.
(A) Foundation Stone: Foundation Stone below the chambers from the subgrade up to the foot (bottom) of the chamber.	Clean, crushed, angular stone,	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	Place and compact in 6" (150 mm) lifts using two full coverages with a vibratory compactor. ^{2,3}

PLEASE NOTE:

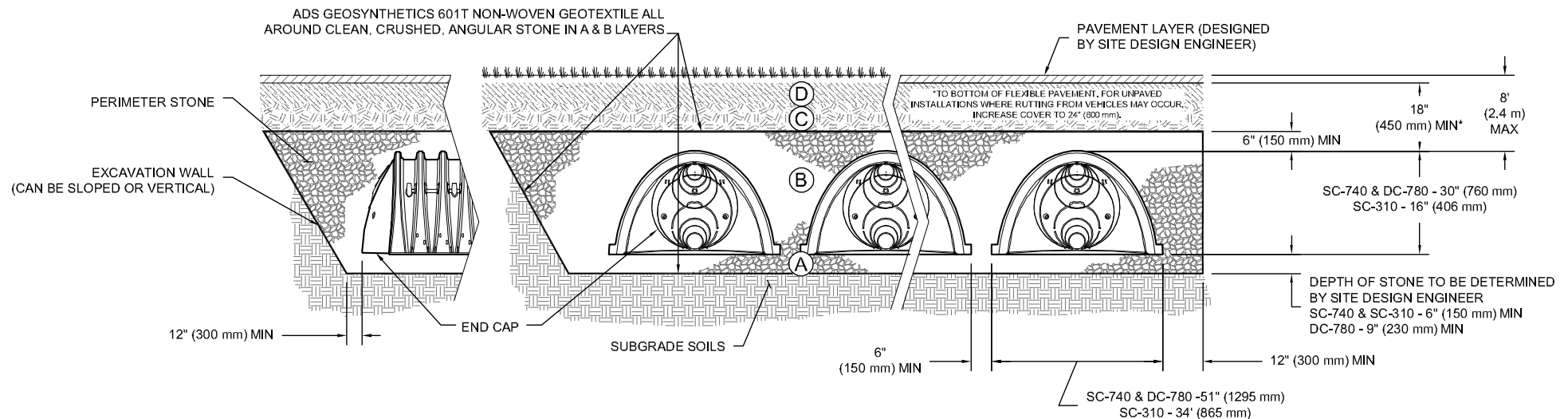
- The listed AASHTO designations are for gradations only. The stone must also be clean, crushed, angular. For example, a specification for #4 stone would state: "clean, crushed, angular no. 4 (AASHTO M43) stone".*
- StormTech compaction requirements are met for 'A' location materials when placed and compacted in 6" (150 mm) (max) lifts using two full coverages with a vibratory compactor.*
- Where infiltration surfaces may be comprised by compaction, for standard installations and standard design load conditions, a flat surface may be achieved by raking or dragging without compaction equipment. For special load designs, contact StormTech for compaction requirements.*

Figure 1- Inspection Port Detail



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

Figure 2 - Fill Material Locations



NOTES:

1. 36" (900 mm) of stabilized cover materials over the chambers is required for full dump truck travel and dumping.
2. During paving operations, dump truck axle loads on 18" (450 mm) of cover may be necessary. Precautions should be taken to avoid rutting of the road base layer, to ensure that compaction requirements have been met, and that a minimum of 18" (450 mm) of cover exists over the chambers. Contact StormTech for additional guidance on allowable axle loads during paving.
3. Ground pressure for track dozers is the vehicle operating weight divided by total ground contact area for both tracks. Excavators will exert higher ground pressures based on loaded bucket weight and boom extension.
4. Mini-excavators (< 8,000lbs/3,628 kg) can be used with at least 12" (300 mm) of stone over the chambers and are limited by the maximum ground pressures in Table 2 based on a full bucket at maximum boom extension.
5. Storage of materials such as construction materials, equipment, spoils, etc. should not be located over the StormTech system. The use of equipment over the StormTech system not covered in Table 2 (ex. soil mixing equipment, cranes, etc) is limited. Please contact StormTech for more information.
6. Allowable track loads based on vehicle travel only. Excavators shall not operate on chamber beds until the total backfill reaches 3 feet (900 mm) over the entire bed.

Table 2 - Maximum Allowable Construction Vehicle Loads⁵

Material Location	Fill Depth over Chambers in. [mm]	Maximum Allowable Wheel Loads		Maximum Allowable Track Loads ⁶		Maximum Allowable Roller Loads
		Max Axle Load for Trucks lbs [kN]	Max Wheel Load for Loaders lbs [kN]	Track Width in. [mm]	Max Ground Pressure psf [kPa]	Max Drum Weight or Dynamic Force lbs [kN]
D Final Fill Material	36" [900] Compacted	32,000 [142]	16,000 [71]	12" [305]	3420 [164]	38,000 [169]
				18" [457]	2350 [113]	
				24" [610]	1850 [89]	
				30" [762]	1510 [72]	
				36" [914]	1310 [63]	
C Initial Fill Material	24" [600] Compacted	32,000 [142]	16,000 [71]	12" [305]	2480 [119]	20,000 [89]
				18" [457]	1770 [85]	
				24" [610]	1430 [68]	
				30" [762]	1210 [58]	
				36" [914]	1070 [51]	
				24" [600] Loose/Dumped	32,000 [142]	
	18" [457]	1625 [78]				
	24" [610]	1325 [63]				
	30" [762]	1135 [54]				
	36" [914]	1010 [48]				
	18" [450]	32,000 [142]	16,000 [71]	12" [305]	2010 [96]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
	18" [457]	1480 [71]				
24" [610]	1220 [58]					
30" [762]	1060 [51]					
36" [914]	950 [45]					
B Embedment Stone	12" [300]	16,000 [71]	NOT ALLOWED	12" [305]	1540 [74]	
				18" [457]	1190 [57]	
				24" [610]	1010 [48]	
				30" [762]	910 [43]	
				36" [914]	840 [40]	
	6" [150]	8,000 [35]	NOT ALLOWED	12" [305]	1070 [51]	NOT ALLOWED
				18" [457]	900 [43]	
				24" [610]	800 [38]	
				30" [762]	760 [36]	
				36" [914]	720 [34]	

Table 3 - Placement Methods and Descriptions

Material Location	Placement Methods/ Restrictions	Wheel Load Restrictions	Track Load Restrictions	Roller Load Restrictions
		See Table 2 for Maximum Construction Loads		
D Final Fill Material	A variety of placement methods may be used. All construction loads must not exceed the maximum limits in Table 2.	36" (900 mm) minimum cover required for dump trucks to dump over chambers.	Dozers to push parallel to rows until 36" (900mm) compacted cover is reached. ⁴	Roller travel parallel to rows only until 36" (900 mm) compacted cover is reached.
C Initial Fill Material	Excavator positioned off bed recommended. Small excavator allowed over chambers. Small dozer allowed.	Asphalt can be dumped into paver when compacted pavement subbase reaches 18" (450 mm) above top of chambers.	Small LGP track dozers & skid loaders allowed to grade cover stone with at least 6" (150 mm) stone under tracks at all times. Equipment must push parallel to rows at all times.	Use dynamic force of roller only after compacted fill depth reaches 12" (300 mm) over chambers. Roller travel parallel to chamber rows only.
B Embedment Stone	No equipment allowed on bare chambers. Use excavator or stone conveyor positioned off bed or on foundation stone to evenly fill around all chambers to at least the top of chambers.	No wheel loads allowed. Material must be placed outside the limits of the chamber bed.	No tracked equipment is allowed on chambers until a min. 6" (150 mm) cover stone is in place.	No rollers allowed.
A Foundation Stone	No StormTech restrictions. Contractor responsible for any conditions or requirements by others relative to subgrade bearing capacity, dewatering or protection of subgrade.			

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17.0 Standard Limited Warranty



STANDARD LIMITED WARRANTY OF STORMTECH LLC ("STORMTECH"): PRODUCTS

- (A) This Limited Warranty applies solely to the StormTech chambers and end plates manufactured by StormTech and sold to the original purchaser (the "Purchaser"). The chambers and end plates are collectively referred to as the "Products."
- (B) The structural integrity of the Products, when installed strictly in accordance with StormTech's written installation instructions at the time of installation, are warranted to the Purchaser against defective materials and workmanship for one (1) year from the date of purchase. Should a defect appear in the Limited Warranty period, the Purchaser shall provide StormTech with written notice of the alleged defect at StormTech's corporate headquarters within ten (10) days of the discovery of the defect. The notice shall describe the alleged defect in reasonable detail. StormTech agrees to supply replacements for those Products determined by StormTech to be defective and covered by this Limited Warranty. The supply of replacement products is the sole remedy of the Purchaser for breaches of this Limited Warranty. StormTech's liability specifically excludes the cost of removal and/or installation of the Products.
- (C) **THIS LIMITED WARRANTY IS EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.**
- (D) This Limited Warranty only applies to the Products when the Products are installed in a single layer. **UNDER NO CIRCUMSTANCES, SHALL THE PRODUCTS BE INSTALLED IN A MULTI-LAYER CONFIGURATION.**
- (E) No representative of StormTech has the authority to change this Limited Warranty in any manner or to extend this Limited Warranty. This Limited Warranty does not apply to any person other than to the Purchaser.
- (F) Under no circumstances shall StormTech be liable to the Purchaser or to any third party for product liability claims; claims arising from the design, shipment, or installation of the Products, or the cost of other goods or services related to the purchase and installation of the Products. For this Limited Warranty to apply, the Products must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and StormTech's written installation instructions.
- (G) **THE LIMITED WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES. STORMTECH SHALL NOT BE LIABLE FOR PENALTIES OR LIQUIDATED DAMAGES, INCLUDING LOSS OF PRODUCTION AND PROFITS; LABOR AND MATERIALS; OVERHEAD COSTS; OR OTHER LOSS OR EXPENSE INCURRED BY THE PURCHASER OR ANY THIRD PARTY. SPECIFICALLY EXCLUDED FROM LIMITED WARRANTY COVERAGE ARE DAMAGE TO THE PRODUCTS ARISING FROM ORDINARY WEAR AND TEAR; ALTERATION, ACCIDENT, MISUSE, ABUSE OR NEGLIGENCE; THE PRODUCTS BEING SUBJECTED TO VEHICLE TRAFFIC OR OTHER CONDITIONS WHICH ARE NOT PERMITTED BY STORMTECH'S WRITTEN SPECIFICATIONS OR INSTALLATION INSTRUCTIONS; FAILURE TO MAINTAIN THE MINIMUM GROUND COVERS SET FORTH IN THE INSTALLATION INSTRUCTIONS; THE PLACEMENT OF IMPROPER MATERIALS INTO THE PRODUCTS; FAILURE OF THE PRODUCTS DUE TO IMPROPER SITING OR IMPROPER SIZING; OR ANY OTHER EVENT NOT CAUSED BY STORMTECH. A PRODUCT ALSO IS EXCLUDED FROM LIMITED WARRANTY COVERAGE IF SUCH PRODUCT IS USED IN A PROJECT OR SYSTEM IN WHICH ANY GEOTEXTILE PRODUCTS OTHER THAN THOSE PROVIDED BY ADVANCED DRAINAGE SYSTEMS ARE USED. THIS LIMITED WARRANTY REPRESENTS STORMTECH'S SOLE LIABILITY TO THE PURCHASER FOR CLAIMS RELATED TO THE PRODUCTS, WHETHER THE CLAIM IS BASED UPON CONTRACT, TORT, OR OTHER LEGAL THEORY.**



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ADS GEOSYNTHETICS 0601T NONWOVEN GEOTEXTILE

Scope

This specification describes ADS Geosynthetics 6.0 oz (0601T) nonwoven geotextile.

Filter Fabric Requirements

ADS Geosynthetics 6.0 oz (0601T) is a needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, which are formed into a random network for dimensional stability. ADS Geosynthetics 6.0 oz (0601T) resists ultraviolet deterioration, rotting, biological degradation, naturally encountered basics and acids. Polypropylene is stable within a pH range of 2 to 13. ADS Geosynthetics 6.0 oz (0601T) conforms to the physical property values listed below:

Filter Fabric Properties

PROPERTY	TEST METHOD	UNIT	M.A.R.V. (Minimum Average Roll Value)
Weight (Typical)	ASTM D 5261	oz/yd ² (g/m ²)	6.0 (203)
Grab Tensile	ASTM D 4632	lbs (kN)	160 (0.711)
Grab Elongation	ASTM D 4632	%	50
Trapezoid Tear Strength	ASTM D 4533	lbs (kN)	60 (0.267)
CBR Puncture Resistance	ASTM D 6241	lbs (kN)	410 (1.82)
Permittivity*	ASTM D 4491	sec ⁻¹	1.5
Water Flow*	ASTM D 4491	gpm/ft ² (l/min/m ²)	110 (4480)
AOS*	ASTM D 4751	US Sieve (mm)	70 (0.212)
UV Resistance	ASTM D 4355	%/hrs	70/500

PACKAGING	
Roll Dimensions (W x L) – ft	12.5 x 360 / 15 x 300
Square Yards Per Roll	500
Estimated Roll Weight – lbs	195

* At the time of manufacturing. Handling may change these properties.



ADS GEOSYNTHETICS 315W WOVEN GEOTEXTILE

Scope

This specification describes ADS Geosynthetics 315W woven geotextile.

Filter Fabric Requirements

ADS Geosynthetics 315W is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position. ADS Geosynthetics 315W resists ultraviolet deterioration, rotting and biological degradation and is inert to commonly encountered soil chemicals. ADS Geosynthetics 315W conforms to the physical property values listed below:

Filter Fabric Properties

PROPERTY	TEST METHOD	ENGLISH M.A.R.V. (Minimum Average Roll Value)	METRIC M.A.R.V. (Minimum Average Roll Value)
Tensile Strength (Grab)	ASTM D-4632	315 lbs	1400 N
Elongation	ASTM D-4632	15%	15%
CBR Puncture	ASTM D-6241	900 lbs	4005 N
Puncture	ASTM D-4833	150 lbs	667 N
Mullen Burst	ASTM D-3786	600 psi	4134 kPa
Trapezoidal Tear	ASTM D-4533	120 lbs	533 N
UV Resistance (at 500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	40 US Std. Sieve	0.425 mm
Permittivity	ASTM D-4491	.05 sec ⁻¹	.05 sec ⁻¹
Water Flow Rate	ASTM D-4491	4 gpm/ft ²	163 l/min/m ²
Roll Sizes		12.5' x 360' 15.0' x 300' 17.5' x 258'	3.81 m x 109.8 m 4.57 m x 91.5 m 5.33 m x 78.6 m

*Maximum average roll value.

