

KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS  
COUNTY ROAD PROJECT NO. 3701

**BAHIA VISTA**  
LANDSLIDE REPAIR



**CONTRACT PROVISIONS**

KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS  
614 DIVISION STREET, MS-26  
PORT ORCHARD, WASHINGTON 98366-4699  
360.337.5777

APPROVED FOR CONSTRUCTION:

2/3/25  
DATE

  
JOSEPH P. RUTAN, P.E.  
COUNTY ENGINEER

BACK OF COVER

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WASHINGTON STATE PREVAILING WAGE RATES, STATE BENEFIT CODE KEY  
AND SUPPLEMENTAL (L&I STATEMENT)

GEOTECHNICAL BASIS OF DESIGN REPORT DATED JANUARY 31, 2025

GEOTECHNICAL REPORT DATED OCTOBER 4, 2023

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## CALL FOR BIDS

### KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS COUNTY ROAD PROJECT NO. 3701

## BAHIA VISTA LANDSLIDE REPAIR

BID OPENING: DATE: April 1, 2025 TIME: 11:00 AM

Sealed bids for the project designated above will be received by Kitsap County Department of Public Works before the time and date indicated above, at which time they will be opened and publicly read aloud. The Public Works building is closed to the public.

**Bids delivered in person or by private carrier (UPS, Federal Express, etc.) will be received by staff from Kitsap County Department of Public Works between the hours of 10:30 AM and 11:00 AM at:**

Kitsap County Department of Public Works  
**Front Entrance of the Public Works Building**  
507 Austin Avenue  
Port Orchard, Washington

Bids will be opened and publicly read aloud at the front entrance of the Public Works Building.

Bids delivered by US Postal Service shall be addressed to:

Kitsap County Department of Public Works  
614 Division Street, MS-26  
Port Orchard, Washington 98366-4699

Prospective bidders are hereby notified that they are solely responsible for ensuring timely delivery of their bid to the place of bid opening.

All bid proposals shall be accompanied by a bid proposal surety bond made payable to Kitsap County Department of Public Works in an amount equal to five percent (5%) of the amount of such bid proposal. Should the successful Bidder fail to enter into such contract and furnish satisfactory performance and payment bonds within the time stated in the Special Provisions, the bid proposal bond shall be forfeited to Kitsap County Department of Public Works.

Each proposal or bid shall be completely sealed in a separate envelope, properly addressed as stated above, with the name and address of the bidder and the name of the project plainly written on the outside of the envelope. A complete bid proposal shall include the following:

- 1) Proposal Form
- 2) Bid Bond
- 3) Bidder Responsibility Statement
- 4) Statement of Qualifications for Contractor Personnel
- 5) Certification of Compliance with Wage Payment Statutes
- 6) Non-Collusion Affidavit
- 7) Proposal for Incorporating Recycled Materials into the Project

All of the above items must be complete in all respects, including signatures (notarized where required). Bidder shall acknowledge receipt of all addendums in the spaces provided. The successful Bidder will be required to submit a photocopy of their current Washington State Contractors Registration. Failure to include all items may cause for the bid to be considered irregular and thereby rejected.

Bids or proposals received after the time set for the opening of bids will not be considered.

Bidders are notified that all bids are likely to be rejected if the lowest responsible bid received exceeds the Engineer's estimate by an unreasonable amount.

Kitsap County reserves the right to award the bid in a manner and on a basis, which will best serve the County, taking into consideration the Bidder Responsibility Statement included with the bids and the requirements of the WSDOT/APWA Standard Specifications and the Contract Provisions.

The award of the contract, if made, shall be made to the responsible Bidder submitting the lowest responsive bid, based upon the total sum of the extension of unit prices for the bid items.

### **DESCRIPTION OF WORK**

This contract is a roadway improvement project which provides for the installation of a soldier pile wall, stormwater improvements and roadway repair in accordance with the Contract Documents. The engineer's estimate ranges from \$500,000 to \$1,000,000.

### **OBTAINING PLANS AND CONTRACT PROVISIONS:**

Electronic copies of the Plans and Contract Provisions in PDF format are available on the internet through Kitsap County's website, Department of Public Works, Road Projects Open for Bid, located at <http://kcowa.us/roadbid>.

Paper copies of the Contract Plans and Provisions for the proposed work may be obtained from the Kitsap County Department of Public Works at 507 Austin Avenue, 3rd floor Reception Desk, Port Orchard, Washington for a non-refundable fee of \$35.00 for each set plus \$5.00 to cover postage and handling if mailing is requested. To order these Contract Documents or to obtain a Bid Proposal Package at no cost, please call 360-337-5777 or email at [help@kitsap1.com](mailto:help@kitsap1.com). Plans and Contract Provisions will not be shipped until the fee is received.

To be added to the Plan Holder List, please complete the form available online at <https://www.kitsapgov.com/pw/Pages/planholders.aspx>. Any questions or issues, please call 360-337-5777 or email at [help@kitsap1.com](mailto:help@kitsap1.com).

### **CONTACT PERSON**

Any prospective Bidder having questions or desire an explanation or interpretation of the Bid Documents are requested to contact Michele Filley, Project Manager, at [mfilley@kitsap.gov](mailto:mfilley@kitsap.gov) by close of business 5 business days preceding the bid opening.

General questions about the project may be addressed by contacting Michele Filley, Project Manager, at 360-271-1844, or at [mfilley@kitsap.gov](mailto:mfilley@kitsap.gov).

### **KITSAP COUNTY BOARD OF COMMISSIONERS**

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# **PROPOSAL**

**KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS  
COUNTY ROAD PROJECT NO. 3701**

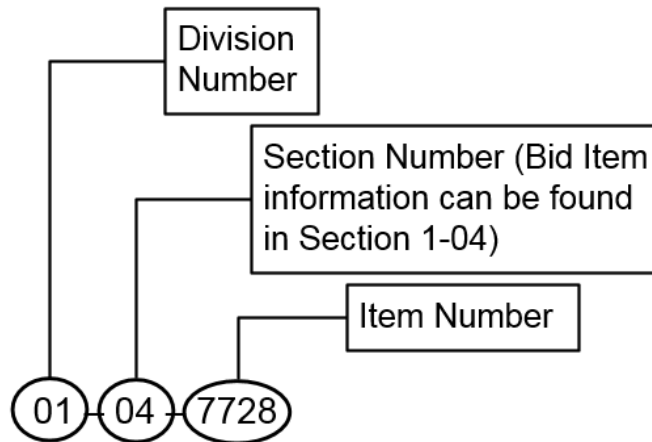
## **BAHIA VISTA LANDSLIDE REPAIR**

**To the Honorable Board of Commissioners  
Kitsap County  
614 Division Street  
Port Orchard, Washington 98366**

1. Pursuant to and in compliance with your Advertisement for Bids and the other documents relating thereto, the undersigned Bidder, having familiarized themselves with the terms of the project related to those items herein bid, being aware of the local conditions affecting the performance of a Contract covering the items bid, having knowledge of the cost of the work at the place where the work is to be done, having familiarized themselves with the Contract Documents, hereby proposes and agrees to perform the work and/or to furnish the equipment, and to furnish any and all of the labor, materials, tools, expendable equipment and all utility and transportation services necessary to perform a Contract covering any or all of those items herein bid and to complete in a workmanlike manner all work covered by said Contract in connection with the Owner's Improvement Project, for an amount computed upon the basis of the quantity of work actually performed at the following bid prices:

**NOTE: UNIT PRICES FOR ALL ITEMS, ALL EXTENSIONS, AND THE TOTAL AMOUNT OF BID MUST BE SHOWN. All prices shall be in legible figures (not words) written in ink or typed. The proposal shall include: A unit price for each item (omitting digits more than four places to the right of the decimal point); an extension for each unit price (omitting digits more than two places to the right of the decimal point); the total Contract price (the sum of all extensions).**

**COST CODE** (a guide to locate Bid Item information – the Contracting Agency does not warrant its accuracy): The Cost Code for each Bid Item consists of the WSDOT/APWA Standard Specifications division number, the section number and the item number, in that order. An example is shown below:



**Kitsap County-specific Bid Items** are noted with “KC” at the end. **Project-specific Bid Items** are noted with “SP”. Bid Items that have options (e.g. Plant Selection or Beam Guardrail Anchor Type X) are designated as such. Examples are shown below:

<b>01-04-7728</b>	<b>WSDOT Standard Bid Item</b>
<b>01-07-0010KC</b>	<b>Kitsap County Standard Bid Item</b>
<b>05-05-SP01</b>	<b>Project-specific Bid Item</b>
<b>08-02-6550-AC</b>	<b>WSDOT Standard Bid Item with Option</b>
<b>08-11-6760-16</b>	<b>WSDOT Standard Bid Item with Option (e.g. specific pipe size)</b>

NO.	COST CODE	ITEM	QTY	UNIT	UNIT COST	AMOUNT
1	01-04-7728	MINOR CHANGE	15000	CALC	\$ 1.00	\$ 15,000.00
2	01-07-0010KC	PROTECTION & SUPPORT OF EXISTING UTILITIES	1	L.S.	\$	\$
3	01-07-7725	REIMBURSEMENT FOR THIRD PARTY DAMAGE	5	EST.	\$ 1.00	\$ 5.00
4	01-07-7736	SPCC PLAN	1	L.S.	\$	\$
5	01-08-7003	TYPE B PROGRESS SCHEDULE	1	L.S.	\$	\$
6	01-09-0001	MOBILIZATION	1	L.S.	\$	\$
7	01-10-6971KC	PROJECT TEMPORARY TRAFFIC CONTROL	1	L.S.	\$	\$
8	01-10-6982	CONSTRUCTION SIGNS CLASS A	128	S.F.	\$	\$
9	01-10-6993	PORTABLE CHANGEABLE MESSAGE SIGN	1248	HR	\$	\$
10	02-01-0035	CLEARING AND GRUBBING (L.S.)	1	L.S.	\$	\$
11	02-02-0050KC	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	L.S.	\$	\$
12	02-02-SP01	REMOVING ASPHALT CONC. PAVEMENT	320	C.Y.	\$	\$
13	02-02-SP02	MONITORING WELL DECOMMISSIONING	1	L.S.	\$	\$
14	02-03-0310	ROADWAY EXCAVATION INCL. HAUL	95	C.Y.	\$	\$
15	02-03-0411KC	SPECIAL BORROW INCL. HAUL (TON)	165	TON	\$	\$
16	02-09-7008KC	SHORING OR EXTRA EXCAVATION CLASS B (L.S.)	1	L.S.	\$	\$
17	02-12-7552	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION	270	S.Y.	\$	\$
18	04-04-5100	CRUSHED SURFACING BASE COURSE (TON)	655	TON	\$	\$

19	04-04-5040	PERMEABLE BALLAST (TON)	90	TON	\$	\$
20	05-04-5767KC	HMA CL. 1/2 IN. PG 58H-22	230	TON	\$	\$
21	05-04-SP01	ASPHALT WEDGE CURB	1385	L.F.	\$	\$
22	05-04-SP02	UNDERDRAIN PIPE 4 IN. DIAM.	57	L.F.	\$	\$
23	05-04-SP03	SOLID WALL PVC STORM SEWER PIPE 4 IN. DIAM.	7	L.F.	\$	\$
24	07-04-3251KC	DUCTILE IRON STORM SEWER PIPE 12 IN. DIAM.	98	L.F.	\$	\$
25	07-05-3091KC	CATCH BASIN TYPE 1	2	EACH	\$	\$
26	07-05-3100KC	ADJUST CATCH BASIN	1	EACH	\$	\$
27	07-05-3105KC	CATCH BASIN TYPE 2 48 IN. DIAM.	2	EACH	\$	\$
28	07-08-7715KC	FORCE ACCOUNT POT-HOLE UTILITY CROSSING	10,000	EST.	\$ 1.00	\$ 10,000.00
29	07-12-6243KC	ADJUST VALVE BOX	2	EACH	\$	\$
30	08-01-6490KC	EROSION/WATER POLLUTION CONTROL (L.S.)	1	L.S.	\$	\$
31	08-02-6391KC	TOPSOIL TYPE A (S.Y.)	450	S.Y.	\$	\$
32	08-02-6431KC	SEEDING, FERTILIZING, AND MULCHING (S.Y.)	525	S.Y.	\$	\$
33	8-02-SP01	RESTORATION PLANTING	1	L.S.	\$	\$
34	08-15-1085	QUARRY SPALLS (C.Y.)	10	C.Y.	\$	\$
35	08-24-SP01	SOLDIER PILE WALL	1	L.S.	\$	\$
<b>TOTAL CONTRACT COST</b>						<b>\$</b>

2. BIDDER SHALL INCLUDE SALES TAX IN THE LUMP SUM AND UNIT PRICE BID ITEMS in accordance with Section 1-07.2(1) of Special Provisions.

3. The undersigned Bidder hereby proposes and agrees to commence work under this Contract, if awarded to them, in accordance with Sections 1-08.4 and 1-08.5 of the Special Provisions. They further agree to complete the contract within **45 working days**.

4. The agreed liquidated damage to the Owner shall be in accordance with Liquidated Damages as described in the Standard Specifications, Amendments thereto, and Special Provisions.

5. The Owner reserves the right to delete all or any portions of the work as outlined in the Contract Documents.

6. The required bid security in the amount of five percent (5%) of the total bid is hereto attached.

7. It is understood that the Contractor is responsible for obtaining and completing all required government forms.

8. Receipt of the following Addenda to the Contract Document is hereby acknowledged.

ADDENDUM #	DATE OF RECEIPT OF ADDENDUM	SIGNED ACKNOWLEDGMENT
1		
2		
3		
4		
5		
6		

(Note: Failure to acknowledge receipt of the Addenda may be considered an irregularity in the proposal).

9. Notice of Acceptance of this bid or requests for additional information should be addressed to the undersigned at the address stated below and unless otherwise notified in writing, this address shall be used by the successful bidder during the life of the Contract for all official notices.

10. By signing this Proposal, the Bidder certifies that they have read and understand all of the terms and Conditions of the Contract Plans, Standard Specifications, the Amendments there to, and these Special Provisions, and agrees to comply with them.

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

Proper Name of Bidder (Type or Print): \_\_\_\_\_

By (Signature): \_\_\_\_\_

Name and Title (Type or Print Name and Title of Signatory): \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State and Zip Code: \_\_\_\_\_

Telephone Number with Area Code: \_\_\_\_\_

Fax Number with Area Code: \_\_\_\_\_

Mailing Address,  
if different from above: \_\_\_\_\_

E-mail Address  
(to be used by the County  
to send award documents) \_\_\_\_\_

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## BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, as Principal, and \_\_\_\_\_ as Surety, are hereby held and firmly bound unto Kitsap County Department of Public Works as Owner in the penal sum of \_\_\_\_\_ for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns. Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2025.

The Condition of the above obligation is such that whereas the Principal has submitted to Kitsap County Department of Public Works, a certain BID, attached hereto and made a part hereof to enter a contract in writing, for the \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOW, THEREFORE,

- (a) If said BID be rejected, or
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attachment hereto (properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said contract, and for the payment of all persons performing labor and furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in 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 Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are Corporations have set their Corporation seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

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



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## BIDDER RESPONSIBILITY STATEMENT

Each Bidder shall prepare and submit the following information with their bid.

By signing the signature page of the Proposal, the Bidder affirms that the following information is true and correct.

Name of Bidder: \_\_\_\_\_

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

### A) MANDATORY BIDDER RESPONSIBILITY CRITERIA (RCW 39.04.350)

1. Washington State Contractors License Number: \_\_\_\_\_  
Effective Date: \_\_\_\_\_
2. State of Washington Unified Business Identifier (UBI) No.: \_\_\_\_\_  
\_\_\_\_\_
3. Do you have industrial insurance (workers' compensation) coverage for your employees working in Washington as required by Title 51 RCW?  
Yes: ☐ No: ☐ Not Applicable: ☐
4. Washington State Employment Security Department number as required by Title 51 RCW.  
Number:  Not Applicable: ☐
5. Washington State Department of Revenue state excise tax registration number as required by Title 82 RCW.  
Number:  Not Applicable: ☐
6. Have you ever been disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3)?  
Yes: ☐ No: ☐
7. Have you received training on the requirements related to public works and prevailing wage?  
Yes: ☐ No: ☐ Exempt: ☐

**B) SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA  
(SPECIAL PROVISIONS SECTION 1-02.14)**

1. Do you own delinquent taxes to the State of Washington Department of Revenue?  
Yes: ☐ No: ☐
2. Are you currently debarred or suspended from bidding by the Federal government?  
Yes: ☐ No: ☐
3. Does your standard subcontract form include the subcontract responsibility language required by RCW 39.06.020?  
Yes: ☐ No: ☐
4. Do you have any established procedure which your company utilizes to validate the responsibility of each of your subcontractors and any sub-tier contractors?  
Yes: ☐ No: ☐
5. Do you have any record of prevailing wage violations in the last 5 years as determined by the Washington State Department of Labor and Industries?  
Yes: ☐ No: ☐
6. Have you had any claims against retainage or payment bonds for public works projects in the last 3 years?  
Yes: ☐ No: ☐
7. Has your company or its owners been convicted of a crime involving bidding on a public works contract in the last 5 years?  
Yes: ☐ No: ☐
8. Has your company had any public works contract terminated for cause or terminated for default by a government agency in the last 5 years?  
Yes: ☐ No: ☐
9. Has your company had any lawsuits with judgments entered against the company in the last 5 years?  
Yes: ☐ No: ☐

1. Gross amount of contracts currently in hand:

[illegible]

4. Bonding company:

16



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## STATEMENT OF QUALIFICATIONS FOR CONTRACTOR PERSONNEL

This form shall be completed in its entirety and submitted with the bid, as stated in Special Provisions Section 1-02.14.

The Kitsap County Public Works Department will be the sole judge in determining if the prospective contractor meets the minimum experience requirements.

**Prime Contractor's Project Manager Name:**

Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Years of PM Experience: \_\_\_\_\_

List three (3) successfully completed projects that were similar in scope, time and complexity within the last five (5) years. **Written Project Descriptions shall be submitted along with the bid proposal.**

#1 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#2 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#3 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

FORM CONTINUES BELOW

**Prime Contractor Superintendent Name:** \_\_\_\_\_

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

Phone: \_\_\_\_\_

Years of Superintendent Experience: \_\_\_\_\_

List three (3) successfully completed projects that were similar in scope, time and complexity within the last five (5) years. **Written Project Descriptions shall be submitted along with the bid proposal.**

#1 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Name of Contractor Employed By: \_\_\_\_\_

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

#2 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Name of Contractor Employed By: \_\_\_\_\_

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

#3 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Name of Contractor Employed By: \_\_\_\_\_

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

**Drilling Contractor:**

The Drilling Contractor and Drilling Contractor's Field/Project Supervisor assigned to this project shall **each** have a minimum of three (3) successfully completed projects that were similar in scope, time, and complexity of work (must include drilling, dewatering, installing piles, installing lagging, and decommissioning wells) within the last five (5) years.

**Drilling Contractor Name: -** \_\_\_\_\_

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

Phone: \_\_\_\_\_

Years of Drilling Experience: \_\_\_\_\_

#1 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

FORM CONTINUES BELOW



Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#2 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#3 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

**Drilling Contractor's Field/Project Supervisor Name:**

Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Years of Drilling Experience: \_\_\_\_\_

#1 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#2 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#3 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_  
Name of Contractor Employed By: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

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Kitsap County Public Works  
An APWA Accredited Agency



**This form must be submitted with the Bid Proposal or as a Supplement to the Bid no later than 24 hours after the time for delivery of the Bid Proposal, as provided for in Section 1-02.9 of the Contract Provisions.**

## **CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES**

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date **March 11, 2025** the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

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

---

Bidder’s Business Name

---

Signature of Authorized Official\*

---

Printed Name

---

Title

---

Date

---

City

---

State

*Check One:*

Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

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

---

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

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

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

## **NON-COLLUSION DECLARATION FORM**

**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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# PROPOSAL FOR INCORPORATING RECYCLED MATERIALS INTO THE PROJECT



APWA-WA Division 1 Committee

rev. 5/13/2022

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## Proposal for Incorporating Recycled Materials into the Project

In compliance with RCW 70A.205.700, the Bidder shall propose below, the total percent of construction aggregate and concrete materials to be incorporated into the Project that are recycled materials. Calculated percentages must be within the amounts allowed in Section 9-03.21(1)E, Table on Maximum Allowable Percent (By Weight) of Recycled Material, of the Standard Specifications.

Proposed total percentage: \_\_\_\_\_ percent.

*Note: Use of recycled materials is highly encouraged within the limits shown above, but does not constitute a Bidder Preference, and will not affect the determination of award, unless two or more lowest responsive Bid totals are exactly equal, in which case proposed recycling percentages will be used as a tie-breaker, per the APWA GSP in Section 1-03.1 of the Special Provisions. Regardless, the Bidder's stated proposed percentages will become a goal the Contractor should do its best to accomplish. Bidders will be required to report on recycled materials actually incorporated into the Project, in accordance with the APWA GSP in Section 1-06.6 of the Special Provisions.*

Bidder: \_\_\_\_\_

Signature of Authorized Official: \_\_\_\_\_

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

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## **AGREEMENT**

This Agreement, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2025 by and between Kitsap County, through the BOARD OF COUNTY COMMISSIONERS of Kitsap County, State of Washington, hereinafter referred to as the "COUNTY", and, \_\_\_\_\_, a general Contractor licensed by the State of Washington, for themselves, their heirs, executors, administrators, successors, and assigns, hereinafter referred to as the "CONTRACTOR."

### **RECITALS:**

WHEREAS, the COUNTY desires to install a soldier pile wall and other road improvements on Bahia Vista Dr in Commissioner District #3.

WHEREAS, the CONTRACTOR has been selected by competitive bid as the "responsible bidder with the lowest responsive bid," as defined under RCW 39.04.010;

NOW THEREFORE, in consideration of the mutual benefits and covenants contained herein, the COUNTY and the CONTRACTOR mutually agree as follows:

### **CONTRACT DOCUMENTS:**

This Agreement hereby incorporates the recitals and the Contract Documents, which documents are incorporated herein by reference. The Contract Documents shall include, but shall not be limited to, the Contract Provisions for "**Bahia Vista Landslide Repair**", Call for Bids, Contractors accepted Bid Proposal, the General and Special Provisions, Contract Plans and Drawings, Addenda, applicable Bonds, and the 2025 WSDOT/APWA Standard Specifications for Road, Bridge, and Municipal Construction, hereinafter referred to as the "Standard Specifications", any amendments to the Standard Specifications, and this Agreement.

### **1) DESCRIPTION OF WORK:**

The Works includes the installation of a soldier pile wall, stormwater improvements and roadway repair on Bahia Vista Dr.

The CONTRACTOR shall furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the project described herein, in accordance with the Contract Documents.

### **2) BINDING EFFECT:**

The covenants and conditions contained in this Agreement shall apply to and bind the parties, heirs, legal representatives and assigns of the parties.

### **3) TIME IS OF THE ESSENCE:**

The CONTRACTOR agrees to work promptly and to fully complete the work within the time limits as described in the Contract Documents. Failure to complete within the

allowed time limit will subject the CONTRACTOR to Liquidated Damages, as described in Section 1-08.9, Liquidated Damages, of the Contract Documents.

#### **4) TIME FOR COMPLETION:**

The work to be performed under this Agreement shall commence and complete in accordance with Sections 1-08.4, Notice to Proceed and Prosecution of Work, and 1-08.5, Time for Completion, of the Contract Documents and Physically Completion of the work shall be achieved within **45 WORKING DAYS**, unless Contract Time is extended otherwise in accordance with the Contract Documents.

#### **5) COMPENSATION:**

The COUNTY agrees to pay the CONTRACTOR for the work described and completed according to the Contract Documents the sum of [spell out the amount in words and in numbers], \$ \_\_\_\_\_. This sum shall include state sales tax.

#### **6) INDEPENDENT CONTRACTOR:**

The CONTRACTOR shall perform the services under this Agreement as an independent CONTRACTOR and not as an agent, employee or servant of the COUNTY. The parties agree that the CONTRACTOR is not entitled to any benefits or rights enjoyed by employees of the COUNTY. CONTRACTOR shall comply with all laws regarding workers' compensation.

#### **7) DISCRIMINATION AND AMERICANS WITH DISABILITIES ACT (ADA):**

The CONTRACTOR agrees to comply with all provisions of the Americans with Disabilities Act and all regulations interpreting or enforcing said Act. The CONTRACTOR agrees to comply with all Federal, State and County laws and regulations in effect pertaining to non-discrimination. Violation of this section may be treated as a breach of this Agreement.

#### **8) LIABILITY FOR NEGLIGENCE:**

The CONTRACTOR shall be liable for any additional expenses incurred by the COUNTY as a result of carelessness or negligence on the part of the CONTRACTOR, the CONTRACTOR's agents, or the CONTRACTOR's employees. The CONTRACTOR agrees that the COUNTY may deduct such additional costs on its own behalf from monies due, or to become due, to the CONTRACTOR.

#### **9) TERMINATION:**

This Agreement may be terminated by the officials or agents of the COUNTY authorized to contract for or supervise the execution of such work in accordance with Section 1-08.10 of the Standard Specifications.

#### **10) MODIFICATION**

There shall be no modification of this Agreement, except in writing, executed with the same formalities as this Agreement. Change Orders totaling less than \$25,000 of the original contract amount may be executed by the Director of Public Works or their authorized agent. Change Orders totaling more than \$25,000 but less than \$75,000 of the original contract amount may be executed by the County Administrator, or their authorized agent. Change Orders that exceed \$75,000 of the total contract amount shall be valid provided they are executed by the Chair of the Board of County Commissioners or their authorized agent.

#### **11) HOLD HARMLESS:**

The CONTRACTOR shall indemnify and hold harmless the COUNTY and its officers and employees from, and shall process and defend at its own expense, all claims, demands or suits at law or equity arising in whole or in part from the CONTRACTOR's performance of any of its obligations under this Agreement; provided that nothing herein shall require the CONTRACTOR to indemnify the COUNTY against and hold harmless the COUNTY from claims, demands, or suits based upon the sole negligence of the COUNTY, its agents, officers, and employees; and provided further that if claims or suits are caused by or result from the concurrent negligence of (a) the CONTRACTOR or CONTRACTOR's agents or employees, and (b) the COUNTY or COUNTY's agents, officers, or employees, this indemnity provision shall be valid and enforceable only to the extent of the CONTRACTOR's negligence or the negligence of the CONTRACTOR's agents or employees.

The CONTRACTOR expressly assumes potential liability for actions brought by the CONTRACTOR's own employees against the COUNTY; and, solely for the purpose of this indemnification and defense, the CONTRACTOR specifically waives any immunity under the state industrial insurance law, Title 51 RCW. The CONTRACTOR recognizes that this waiver was specifically entered into pursuant to the provisions of RCW 4.24.115 and was subject of mutual negotiation.

#### **12) INSURANCE REQUIREMENTS:**

Section 1-07.18 of the Special Provisions shall govern this Agreement.

#### **13) VENUE AND CHOICE OF LAW:**

Any action at law, suit in equity, or other judicial proceeding for the enforcement of this contract or any provisions thereof shall be instituted as provided for in RCW 36.01.050. It is mutually understood and agreed that this Agreement shall be governed by the laws of the State of Washington, both as to interpretation and performance.

#### **14) INTEGRATION CLAUSE:**

This instrument embodies the entire agreement of the parties. There are no promises, terms, conditions or obligations other than those contained herein; and this Agreement shall supersede all previous communications, representations or agreements, either verbal or written, between parties.

**15) AUTHORIZATION:**

Each party signing below warrants to the other party, that they have the full power and authority to execute this Agreement on behalf of the party for whom they sign.

**16) COMPLIANCE WITH LAWS:**

The CONTRACTOR shall comply with all applicable federal, state and local laws, rules and regulations in performing this Agreement.

**17) SEVERABILITY:**

a. If a court of competent jurisdiction holds any part, term or provision of this Agreement to be illegal, or invalid in whole or in part, the validity of the remaining provisions shall not be affected, and the parties rights and obligations shall be construed and enforced as if the Contract did not contain the particular provision held to be invalid.

b. If it should appear that any provision of this Agreement is in conflict with any statutory provision of the United States or State of Washington, said provision which may conflict therewith shall be deemed inoperative and null and void insofar as it may be in conflict therewith, and shall be deemed modified to conform to such statutory provision.

**18) CONFLICTS PROVISION:**

In the event language in this Agreement conflicts with the requirements in the Standard Specifications, the language in the Agreement controls.

**19) RIGHTS and REMEDIES:**

No action or failure to act by the COUNTY shall constitute a waiver of a right or duty afforded the COUNTY under the Contract Documents, nor shall such action or failure to act constitute approval of an acquiescence in a breach therein, except as may be specifically agreed in writing.

**20) THIRD-PARTY AGREEMENTS:**

Neither this Agreement nor the Contract Documents shall not be construed to create a contractual relationship of any kind between the COUNTY and any Subcontractor or any persons other than the COUNTY and the CONTRACTOR.

**21) RECORDS RETENTION:**

The wage, payroll, bid and cost records of the CONTRACTOR and its Subcontractors, and all records subject to audit in accordance with the Standard Specifications shall be retained for a period of not less than six (6) years after the date of Final Acceptance of the Contract Documents.

**22)PUBLIC RECORDS**

The CONTRACTOR acknowledges the Agreement, and all records associated with the Agreement shall be available to the COUNTY for inspection and copying by the public where required by the Public Records Act, Chapter 42.56 RCW ("Act"). To the extent that records in the custody of the CONTRACTOR are needed for the County to respond to a request under the Act, as determined by the County, the CONTRACTOR shall make them promptly available to the COUNTY at no cost to the COUNTY. If the CONTRACTOR considers any portion of any record, whether electronic or hard copy, to be protected from disclosure under the law, the CONTRACTOR shall clearly identify all specific information it claims to be confidential or proprietary. If the COUNTY receives a request under the Act to inspect or copy the information that has been identified by the CONTRACTOR as protected from disclosure and the COUNTY determines that release of the information is required by the ACT or otherwise appropriate, the County's sole obligation will be to make a reasonable effort to notify the CONTRACTOR of the request and the date that such protected information will be released to the requester unless the CONTRACTOR obtains a court order to enjoin disclosure pursuant to RCW 42.56.540. If the CONTRACTOR fails to timely obtain a court order enjoining disclosure, the COUNTY will release the requested information on the date specified. The COUNTY has no obligation on behalf of the CONTRACTOR to claim any exemption from disclosure under the ACT. The COUNTY will not be liable to the CONTRACTOR for releasing records in compliance with the Act, this subsection or court order.

**23) CONTRACT BOND:**

Payment and performance bonds for this project have been issued by

\_\_\_\_\_, Surety Company of \_\_\_\_\_

Street address: \_\_\_\_\_ City: \_\_\_\_\_

Telephone: \_\_\_\_\_ Contact Person: \_\_\_\_\_

in the amount of \_\_\_\_\_.

IN WITNESS WHEREOF, the said CONTRACTOR has executed this instrument, and the said Board of County Commissioners of aforesaid COUNTY pursuant to resolution duly adopted has caused this instrument to be executed by and in the name of said Board by its Chair, duly attested by its Clerk, the day and year first above written, and the seal of said Board to be hereunto affixed on the date this instrument first above written.

**CONTRACTOR**

**BOARD OF COUNTY COMMISSIONERS  
KITSAP COUNTY, WASHINGTON**

\_\_\_\_\_

\_\_\_\_\_  
**Christine Rolfes, Chair**

BY \_\_\_\_\_

TITLE \_\_\_\_\_

\_\_\_\_\_

---

**Oran Root**, Commissioner

---

**Katherine T. Walters**, Commissioner

Foregoing contract approved and ratified:

---

ATTEST

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**DANA DANIELS**, Clerk of the Board

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## PUBLIC WORKS PAYMENT BOND

to \_\_\_\_\_, WA

Bond No. \_\_\_\_\_

\_\_\_\_\_, Washington, (\_\_\_\_\_) has awarded to \_\_\_\_\_ (Principal), a Contract for the construction of the project designated as \_\_\_\_\_, Project No. \_\_\_\_\_, in \_\_\_\_\_, Washington (Contract), and said Principal is required under the terms of that Contract to furnish a payment bond in accord with Title 39.08 Revised Code of Washington (RCW) and (where applicable) 60.28 RCW.

The Principal and \_\_\_\_\_ (Surety), a corporation organized under the laws of the State of \_\_\_\_\_ and licensed to do business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly bound to \_\_\_\_\_, in the sum of \_\_\_\_\_ US Dollars (\$\_\_\_\_\_) Total Contract Amount, subject to the provisions herein.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW Titles 60.28, 39.08, and 39.12 including all workers, laborers, mechanics, subcontractors, lower tier subcontractors, and material suppliers, and all persons who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Title 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety agrees to indemnify, defend, and protect the \_\_\_\_\_ against any claim of direct or indirect loss resulting from the failure of the Principal, its heirs, executors, administrators, successors, or assigns, (or the subcontractors or lower tier subcontractors of the Principal) to pay all laborers, mechanics, subcontractors, lower tier subcontractors materialpersons, and all persons who shall supply such contractor or subcontractors with provisions and supplies for the carrying on of such work.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, except as provided herein, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond may be executed in two (2) original counterparts, and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety.

The Surety agrees to be bound by the laws of the state of Washington and subjected to the jurisdiction of the state of Washington.

### PRINCIPAL

Principal Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Local office/agent of Surety Company:

Name \_\_\_\_\_

Address \_\_\_\_\_

### SURETY

Surety Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Telephone \_\_\_\_\_



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# PUBLIC WORKS PERFORMANCE BOND

to \_\_\_\_\_, WA

Bond No. \_\_\_\_\_

\_\_\_\_\_, Washington, (\_\_\_\_\_) has awarded to \_\_\_\_\_ (Principal), a Contract for the construction of the project designated as \_\_\_\_\_, Project No. \_\_\_\_\_, in \_\_\_\_\_, Washington (Contract), and said Principal is required under the terms of that Contract to furnish a bond for performance of all obligations under the Contract.

The Principal, and \_\_\_\_\_ (Surety), a corporation organized under the laws of the State of \_\_\_\_\_ and licensed to do business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly bound to the \_\_\_\_\_, in the sum of \_\_\_\_\_ US Dollars (\$\_\_\_\_\_) Total Contract Amount, subject to the provisions herein.

This statutory performance bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal's obligations under the Contract and fulfill all the terms and conditions of all duly authorized modifications, additions, and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety agrees to indemnify, defend, and protect the \_\_\_\_\_ against any claim of direct or indirect loss resulting from the failure of the Principal, its heirs, executors, administrators, successors, or assigns (or any of the employees, subcontractors, or lower tier subcontractors of the Principal) to faithfully perform the Contract.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond may be executed in two (2) original counterparts, and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety.

The Surety agrees to be bound by the laws of the state of Washington and subjected to the jurisdiction of the state of Washington.

## PRINCIPAL

Principal Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Local office/agent of Surety Company:

Name \_\_\_\_\_

Address \_\_\_\_\_

## SURETY

Surety Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Telephone \_\_\_\_\_

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## **SPECIAL PROVISIONS**

**KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS  
COUNTY ROAD PROJECT NO. 3701**

### **BAHIA VISTA LANDSLIDE REPAIR**

The Professional Engineer's seal and signature affixed hereon indicates this Engineer's review and participation in the preparation of the Special Provisions.



Kristina B. Nelson, P.E.  
Senior Program Manager - Engineering  
**Division 1**



KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS  
COUNTY ROAD PROJECT NO. 3701

**BAHIA VISTA LANDSLIDE REPAIR**

The Professional Engineer's seal and signature affixed hereon indicates this Engineer's review and participation in the preparation of the Special Provisions.



---

SAMUEL ROWSWELL, PE  
PROJECT ENGINEER  
Division 2 - 9

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## INTRODUCTION TO THE SPECIAL PROVISIONS

*(January 4, 2024 APWA GSP, Option A)*

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2025 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 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 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)*  
*(May 1, 2013 KC GSP) Agency Special Provision*

*Project specific special provisions are labeled without a date as such:*

*(\*\*\*\*\*)*

Also incorporated into the Contract Documents by reference are:

- *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 Manual M21-01, current edition
- Kitsap County Road Standards, current edition

Contractor shall obtain copies of these publications, at Contractor's own expense.

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## **DIVISION 1 GENERAL REQUIREMENTS**

### **Description of Work**

*(March 13, 1995 WSDOT GSP)*

This Contract provides for the improvement of Bahia Vista Dr including the installation of a soldier pile wall, stormwater improvements and roadway repair and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

### **1-01 DEFINITIONS AND TERMS**

#### **1-01.3 Definitions**

*(January 19, 2022 APWA GSP)*

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

#### **Dates**

##### **Bid Opening Date**

The date on which the Contracting Agency publicly opens and reads the Bids.

##### **Award Date**

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

##### **Contract Execution Date**

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

##### **Notice to Proceed Date**

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

##### **Substantial Completion Date**

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

##### **Physical Completion Date**

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

##### **Completion Date**

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

**Final Acceptance Date**

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

Supplement this Section with the following:

All references in the Standard Specifications or WSDOT General Special Provisions, to the terms “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”.

All references to the terms “State” or “state” shall be revised to read “Contracting Agency” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

All references to “final contract voucher certification” shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

**Additive**

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

**Alternate**

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

**Business Day**

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

**Contract Bond**

The definition in the Standard Specifications for “Contract Bond” applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

**Contract Documents**

See definition for "Contract".

**Contract Time**

The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

**Notice of Award**

The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency's acceptance of the Bid Proposal.

**Notice to Proceed**

The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

**Traffic**

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

**1-02 BID PROCEDURES AND CONDITIONS****1-02.1 Prequalification of Bidders**

Delete this section and replace it with the following:

**1-02.1 Qualifications of Bidder**

*(January 24, 2011 APWA GSP)*

Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

Add the following new section:

**1-02.1(1) Supplemental Qualifications Criteria**

*(July 31, 2017 APWA GSP)*

In addition, the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria, in accordance with RCW 39.04.350(3), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in Section 1-02.14 Option C of these Special Provisions.

**1-02.2 Plans and Specifications**

*(June 27, 2011 APWA GSP)*

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found 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:

<b>To Prime Contractor</b>	<b>No. of Sets</b>	<b>Basis of Distribution</b>
Reduced plans (11" x 17")	5	Furnished automatically upon award.
Contract Provisions	5	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	5	Furnished automatically upon award.

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

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

##### **1-02.4(1) General**

*(December 30, 2022 APWA GSP, Option B)*

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

Prospective Bidders 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.

##### **1-02.5 Proposal Forms**

*(July 31, 2017 APWA GSP)*

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's

name, address, telephone number, and signature; the bidder's UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

#### **1-02.6 Preparation of Proposal**

*(November 20, 2023 WSDOT GSP, Option 2)*

The fourth and fifth paragraphs of Section 1-02.6 are deleted.

*(November 25, 2024 APWA GSP, Option B)*

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.

Delete the last two paragraphs, and replace them with the following:

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name and signed by a partner.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture.

Add the following new section:

#### **1-02.6(1) Recycled Materials Proposal**

*(January 4, 2016 APWA GSP)*

The Bidder shall submit with the Bid, its proposal for incorporating recycled materials into the project, using the form provided in the Contract Provisions.

#### **1-02.7 Bid Deposit**

*(March 8, 2013 APWA GSP)*

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in the Contract Provisions.

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

#### **1-02.9 Delivery of Proposal**

*(\*\*\*\*\*)*

Delete this section and replace it with the following:

##### **General**

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery.

Supplemental bid information submitted after the proposal submittal but within 48 hours of the time and date the proposal is due, the document(s) shall be submitted as follows:

1. By facsimile to the following FAX number: (360) 337-4867 or
2. By e-mail to the following e-mail address: [tsmith@kitsap.gov](mailto:tsmith@kitsap.gov)



All other information required to be submitted with the Bid Proposal must be submitted with the Bid Proposal itself, at the time stated in the Call for Bids.

Proposals that are received as required will be publicly opened and read as specified in Section 1-02.12. The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Call for Bids for receipt of Bid Proposals, or received in a location other than that specified in the Call for Bids. The Contracting Agency will not open or consider any "Supplemental Information" (Written Confirmation Documents or GFE Documentation) that is received after the time specified or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the normal work processes of the Contracting Agency resume.

#### **1-02.10 Withdrawing, Revising, or Supplementing Proposal** (July 23, 2015 APWA GSP)

Delete this section, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed,

emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

### **1-02.13 Irregular Proposals**

(\*\*\*\*\*)

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
  - a. The Bidder is not prequalified when so required;
  - b. The Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
  - c. A price per unit cannot be determined from the Bid Proposal;
  - d. The Proposal form is not properly executed; or
  - e. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.
2. A Proposal may be considered irregular and may be rejected if:
  - a. The Proposal does not include a unit price for every Bid item;
  - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
  - c. The authorized Proposal Form furnished by the Contracting Agency is not used or is altered;
  - d. The completed Proposal form contains unauthorized additions, deletions, alternate Bids, or conditions;
  - e. Receipt of Addenda is not acknowledged;
  - f. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
  - g. If Proposal form entries are not made in ink.

### **1-02.14 Disqualification of Bidders**

(\*\*\*\*\*)

Delete this section and replace it with the following:

A Bidder will be deemed not responsible for failing to submit, with the bid, and meet the requirements of the "Statement of Qualifications for Contractor Personnel" form included in the Contract Provisions.

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria 1-8 in this Section:

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2.

Evidence that the Bidder meets Supplemental Criteria 3-8 shall be provided by the Bidder as stated later in this Section.

**1. Delinquent State Taxes**

- A. Criterion: The Bidder shall not owe delinquent taxes to the Washington State Department of Revenue without a payment plan approved by the Department of Revenue.
- B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder does not owe delinquent taxes to the Washington State Department of Revenue, or if delinquent taxes are owed to the Washington State Department of Revenue, the Bidder must submit a written payment plan approved by the Department of Revenue, to the Contracting Agency by the deadline listed below.

**2. Federal Debarment**

- A. Criterion: The Bidder shall not currently be debarred or suspended by the Federal government.
- B. Documentation: The Bidder shall not be listed as having an “active exclusion” on the U.S. government’s “System for Award Management” database ([www.sam.gov](http://www.sam.gov)).

**3. Subcontractor Responsibility**

- A. Criterion: The Bidder’s standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder’s subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also “responsible” subcontractors as defined by RCW 39.06.020.
- B. Documentation: The Bidder, if and when required as detailed below, shall submit a copy of its standard subcontract form for review by the Contracting Agency, and a written description of its procedure for validating the responsibility of subcontractors with which it contracts.

**4. Claims Against Retainage and Bonds**

- A. Criterion: The Bidder shall not have a record of excessive claims filed against the retainage or payment bonds for public works projects in the

three years prior to the bid submittal date, that demonstrate a lack of effective management by the Bidder of making timely and appropriate payments to its subcontractors, suppliers, and workers, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. **Documentation:** The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to the bid submittal date that have had claims against retainage and bonds and include for each project the following information:

- Name of project
- The owner and contact information for the owner;
- A list of claims filed against the retainage and/or payment bond for any of the projects listed;
- A written explanation of the circumstances surrounding each claim and the ultimate resolution of the claim.

#### 5. **Public Bidding Crime**

A. **Criterion:** The Bidder and/or its owners shall not have been convicted of a crime involving bidding on a public works contract in the five years prior to the bid submittal date.

B. **Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder and/or its owners have not been convicted of a crime involving bidding on a public works contract.

#### 6. **Termination for Cause / Termination for Default**

A. **Criterion:** The Bidder shall not have had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. **Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date; or if Bidder was terminated, describe the circumstances.

#### 7. **Lawsuits**

- A. Criterion: The Bidder shall not have lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.
- B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, or shall submit a list of all lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date, along with a written explanation of the circumstances surrounding each such lawsuit. The Contracting Agency shall evaluate these explanations to determine whether the lawsuits demonstrate a pattern of failing to meet of terms of construction related contracts.

8. **Contracting Agency Specific Criteria**

- A. Criterion: Bidders shall supply the following information:
  - 1. Dollar amount of contracts currently held by the bidder,
  - 2. List of more important construction projects completed by your company in the last 5 years,
  - 3. Bank references, and
  - 4. Bonding company.
- B. Documentation: The required information shall be included in Section C of the Bidder Responsibility Statement.

As evidence that the Bidder meets the Supplemental Responsibility Criteria stated above, the apparent low Bidder must submit to the Contracting Agency by 12:00 P.M. (noon) of the second business day following the bid submittal deadline, a written statement verifying that the Bidder meets the Supplemental Criteria together with supporting documentation (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with the Supplemental Responsibility Criteria. The Contracting Agency reserves the right to request further documentation as needed from the low bidder and documentation from other Bidders as well to assess Bidder responsibility and compliance with all bidder responsibility criteria. The Contracting Agency also reserves the right to obtain information from third parties and independent sources of information concerning a Bidder's compliance with the mandatory and supplemental criteria, and to use that information in their evaluation. The Contracting Agency may

consider mitigating factors in determining whether the Bidder complies with the requirements of the Supplemental Criteria.

The basis for evaluation of Bidder compliance with these mandatory and Supplemental Criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

**Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid:**  
Bidders with concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria may make or submit requests to the Contracting Agency to modify the criteria. Such requests shall be in writing, describe the nature of the concerns, and propose specific modifications to the criteria. Bidders shall submit such requests to the Contracting Agency no later than five (5) business days prior to the bid submittal deadline and address the request to the Project Engineer or such other person designated by the Contracting Agency in the Bid Documents.

#### **1-02.15 Pre Award Information** *(December 30, 2022 APWA GSP)*

Revise this section to read:

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

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,

3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.
7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

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

#### **1-03.1 Consideration of Bids**

*(December 30, 2022 APWA GSP)*

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder's unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

#### **1-03.1(1) Identical Bid Totals**

*(December 30, 2022 APWA GSP)*

Revise this section to read:

After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be determined by drawing as follows: Two or more slips of paper will be marked as follows: one marked "Winner" and the other(s) marked "unsuccessful". The slips will be folded to make the marking unseen. The slips will be placed inside a box. One authorized representative of each Bidder shall draw a slip from the box. Bidders shall draw in alphabetic order by the name of the firm as registered with the Washington State Department of Licensing. The slips shall be unfolded and the firm with the slip marked "Winner" will be

determined to be the successful Bidder and eligible for Award of the Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest responsive Bid, and with a proposed recycled materials percentage that is exactly equal to the highest proposed recycled materials amount, are eligible to draw.

### **1-03.3 Execution of Contract**

*(July 8, 2024 APWA GSP Option A)*

Revise this section to read:

Within **3** calendar days of Award date (not including Saturdays, Sundays and Holidays), the successful Bidder shall provide the information necessary to execute the Contract to the Contracting Agency. The Bidder shall send the contact information, including the full name, email address, and phone number, for the authorized signer and bonding agent to the Contracting Agency.

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within **10** calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of **10** additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

### **1-03.4 Contract Bond**

*(July 23, 2015 APWA GSP)*



Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
  - a. Is registered with the Washington State Insurance Commissioner, and
  - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
  - a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
  - b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

### **1-03.7 Judicial Review**

*(December 30, 2022 APWA GSP)*

Revise this section to read:

All decisions made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

## **1-04 SCOPE OF WORK**

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

*(December 30, 2022 APWA GSP)*

Revise the second paragraph to read:

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

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. Standard Specifications,
6. Contracting Agency's Standard Plans or Details (if any), and
7. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

### **1-04.4 Minor Changes**

*(January 19, 2022 APWA GSP)*

The first two sentences of the last paragraph of Section 1-04.4 are deleted.

### **1-04.6 Variation in Estimated Quantities**

*(\*\*\*\*\*)*

Supplement this section with the following:

The quantity for Special Borrow including Haul has been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity. This bid item shall not be subject to the provisions of 1-04.6 of the Standard Specifications.

## **1-05 CONTROL OF WORK**

### **1-05.3 Working Drawings**

Section 1-05.3 is supplemented with the following:

*(November 29, 2022 KC GSP)*

### **1-05.3(1) Submittals**

The Contractor shall not install materials or equipment, which requires submittals, until reviewed by the Contracting Agency. Late submissions by the Contractor shall not be cause for time extension.

Submittals shall be made per Submittal Number and Revision assigned by the Contracting Agency's project management software, rather than per material. The Contractor shall be responsible for ensuring that each submittal includes cut sheets and/or other information for all pertinent materials necessary to complete the work for each Submittal Number. It is understood that producing submittals for each Submittal Number may require multiple submittals of common materials that are associated with more than one Submittal Number. The Contractor shall also be responsible for producing submittals that may only be associated with a Specification Section, not a particular Submittal Number.

The Contractor shall submit electronic copies of each submittal required by the Contract Documents through the Contracting Agency's project management software, (see Special Provisions Section 1-05.17), unless otherwise required elsewhere in the Contract Provisions. This includes, but is not limited to:

- Working Drawings
- Product Data
- Samples
- Reports
- Material Submittals (Ref. 1-06)
- Progress Schedules (Ref. 1-08.3)

Physical samples shall be delivered with a hardcopy of the transmittal submitted through the Contracting Agency's project management software.

The Engineer will return reviewed submittals through the Contracting Agency's project management software for the Contractor's use.

### **1-05.3(2) Submittal Schedule**

In conformance with section 1-08.3, the progress schedule shall be submitted and reviewed prior to commencing any work. No delay claim shall be entertained for Contractor's failure to comply.

No claim will be allowed for damages or extension of time resulting from rejection of a submittal or the requirement of resubmittals as outlined by this section.

The Engineer's review will be completed as quickly as possible but may require up to ten (10) working days from the date the submittals or resubmittals are received until they are sent to the Contractor. If more than ten (10) working days are required for the Engineer's review of any individual submittal or resubmittal, an extension of time will be considered in accordance with Section 1-08.8.

### **1-05.3(3) Submittal Procedures**

Contractor submittals shall be in accordance with the following:

The Contractor shall thoroughly review each submittal for dimensions, quantities, and details of the material or item shown. The Contractor shall review each submittal and note any errors, omissions, or deviations with the Contract Documents. The Contractor shall accept full responsibility for the completeness of each submittal.

Each submittal shall have a unique number assigned to it (via the Contracting Agency's project management software). On each page, indicate the page number, and total number of pages in each submittal.

Each submittal shall indicate the following:

1. The intended use of the item in the work;
2. Clearly indicate only applicable items on any catalog cut sheets;
3. The current revision, issue number, and data shall be indicated on all drawings and other descriptive data.
4. Description of Submittal.
5. Related Specification Section and/or plan sheet.
6. Each material submittal shall clearly indicate the name and address of all suppliers, processors, distributors, and/or producers from which the Contractor directly purchased each material.

When submitting product data, the Contractor shall modify drawings to delete any information not applicable to the project and add information that is applicable to the project. The Contractor shall mark copies of printed material to clearly identify the pertinent materials, products or models.

Samples submitted shall be of sufficient size and quantity to clearly illustrate functional characteristics of product or material and full range of colors available. Field samples and mock-ups, where required, shall be erected at the project site where directed by the Engineer.

The Contractor shall notify the Engineer, in writing at time of submission, of deviations in submittals from requirements of the contract documents.

The Contracting Agency shall not be responsible for delays in reviewing submittals not submitted in accordance with these specifications.

Review or approval of Working Drawings shall neither confer upon the Contracting Agency nor relieve the Contractor of any responsibility for the accuracy of the drawings or their conformity with the Contract. The Contractor shall bear all risk and all costs of any Work delays caused by rejection or non-approval of Working Drawings.

#### **1-05.3(4) Engineer's Review of Submittals**

The Engineer's review of drawings and data submitted by the Contractor will cover only general conformity with the Contract drawings and specifications. The Engineer's review of submittals shall not relieve the Contractor from responsibility for errors, omissions, deviations, or responsibility for compliance with the Contract documents.

Review of a separate item does not constitute review of an assembly in which the item functions.

When the submittal or resubmittal is marked "APPROVED", "APPROVED AS NOTED", "REVIEWED & FILED" AND "CONDITIONALLY APPROVED" no resubmittal is required. When the submittal is marked "REVIEWED WITH COMMENTS" the Contractor shall comply with any comments on the return submittal.

#### **1-05.3(5) Resubmittals**

When a submittal is marked "REVISE AND RESUBMIT" or "REJECTED," the Contractor shall make the corrections as noted and instructed by the Engineer and resubmit via the Contracting Agency's project management software. The Contractor shall not install material or equipment that has received a review status of "REVISE AND RESUBMIT" or REJECTED".

When corrected copies are resubmitted, the Contractor shall in writing direct specific attention to all revisions and shall list separately any revision made other than those called for by the Engineer on previous submittals. The Contracting Agency's project management software will assign the resubmittal number of the original submittal followed by a revision number (1, 2, etc.) to indicate the sequence of the resubmittal.

Each submittal shall have a unique number assigned to it (via the Contracting Agency's project management software).

The Contractor shall revise returned submittals as required and resubmit until final review is obtained. Any associated progress delay due to the Contractor's need to revise and resubmit is the Contractor's sole responsibility.

The Contractor shall verify that all exceptions previously noted by the Engineer have been accounted for.

#### **1-05.3(6) Clarifications**

Clarifications of the Contract intent shall be submitted via a Request for Information (RFI) using the Contracting Agency's project management software as described in Section 1-05.17 of the Special Provisions. The Contractor shall provide a clear and concise clarification question, specific project document reference such as plan detail number or specification number, proposed solution to the clarification question, and provide any supporting documentation necessary to understand the clarification question.

Request for Information responses provided by the Contracting Agency shall be incorporated into the Record Drawings, if resulting in a change to the Contract Plans.

Request for Information responses provided by the Contracting Agency shall not be construed to be a change to the Contract Documents.

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

Delete the fourth through seventh paragraph of this section and add the following new subsection:

*(November 25, 2024 APWA GSP, Option C)*

##### **1-05.4(1) Contracting Agency Provided Construction Staking**

###### **1-05.4(1)A General**

As used in this Section 1-05.4, the words, "stake," "mark," "marker," or "monument" will be deemed to include any kind of survey marking, whether or not set by the Contracting Agency.

###### **1-05.4(1)B Control Stakes**

The Engineer will supply construction stakes and marks establishing lines, slopes and grades in accordance with this Section of these Special Provisions. The Contractor shall assume full responsibility for detailed dimensions, elevations, and excavation slopes measured from these Engineer furnished stakes and marks.

A claim by the Contractor for extra compensation by reason of alterations or reconstruction work allegedly due to error in the Engineer's line and grade will not be allowed unless the original control points set by the Engineer still exist, or

unless the Contractor can provide other satisfactory substantiating evidence to prove the error was caused by incorrect Engineer furnished survey data. Three consecutive points set on line or grade shall be the minimum points used to determine any variation from a straight line or grade. Any such variation shall, upon discovery, be reported to the Engineer.

The Contractor shall provide a work site clear of equipment, stockpiles and obstructions which has been prepared and maintained to permit construction staking to proceed in a safe and orderly manner. The Engineer will stake a finite amount of work in a single day in accordance with Section 1-05.4(1)C of these Special Provisions.

Stakes that constitute reference points for all construction work will be conspicuously marked with an appropriate color of flagging tape. It will be the responsibility of the Contractor to inform its employees and subcontractors of the importance and necessity to preserve the stakes.

#### **1-05.4(1)C Survey Requests**

It shall be the Contractor's responsibility to properly schedule survey work and coordinate staking requests with construction activities. The Engineer may be reasonably expected to stake any one of the following items, in the quantity shown, in a single day:

Roadway grading	+/-1500 lineal feet of centerline
Storm or sanitary sewer	Approximately 8-10 structures
Water main	+/-1500 lineal feet of pipe
Curb and gutter	+/-1300 lineal feet (one side only)
Base and top course	+/-1000 lineal feet of centerline
Slope staking	+/-800-1200 lineal feet (top and toe)
Illumination/signalization	Approximately 15-20 structures

Actual quantities may vary based on the complexity of the project, line of sight considerations, traffic interference, properly prepared work site, and other items that could affect production.

The Contractor shall be aware that length does not always translate directly into stationing. For example, a survey request for storm sewer pipe from Station 3+00 to 8+00 is 500 lineal feet in length. There may be 1000 lineal feet, or more, of storm sewer pipe, if the pipe is placed on both sides of the roadway and interconnected.

The Contractor shall provide staking requests at least three (3) working days before the Engineer needs to begin the staking operation. If the work site is

obstructed so that survey work cannot be done, a new survey request shall be submitted by the Contractor so that the survey work can be rescheduled once the site is properly prepared. An additional 3 working days may be required to complete the rescheduled work.

The Contractor shall work to preserve stakes and marks set by the Engineer. The Contracting Agency will deduct from payments due the Contractor all costs to replace such stakes, marks, carelessly or willfully damaged or destroyed by the Contractor's operation. A new survey request shall be submitted by the Contractor to replace the damaged or destroyed stakes. An additional 3 working days may be required to complete the request.

If the removal of a control stake or monument is required by the construction operations of the Contractor or its subcontractors, and advance notice of at least three (3) working days is given to the Engineer, the Engineer will reference, remove, and later replace the stakes at no cost to the Contractor.

The Contractor is not entitled to an extension of time, as provided for in Section 1-08.8 as a result of any replacement of control stakes.

#### **1-05.4(1)D Staking Services**

The Contractor shall determine appropriate construction stake offset distances to prevent damage to stakes by its construction equipment.

The Engineer shall furnish to the Contractor, one time only, all principal lines, grades and measurements the Engineer deems necessary for completion of the work. These shall generally consist of one initial set of:

1. Cut or fill stakes for establishing grade and embankments,
2. Curb or gutter grade stakes,
3. Centerline finish grade stakes for pavement sections wider than 25 feet as set forth in Section 1-05.5(5), subsection 2, and
4. Offset points to establish line and grade for underground utilities such as water, sewers, storm drains, illumination and signalization.

No intermediate stakes shall be provided between curb grade and centerline stakes.

The Contractor shall provide enough safe areas to permit the Engineer to set those points and elevations that are the responsibility of the Contracting Agency and to perform random checks of the surveying performed by the Contractor.

#### **Roadway and Utility Surveys**

The County will furnish the following stakes and reference marks:



- Clearing Limits - One set of clearing limit stakes will be set at approximately 50-foot stations or as needed.
- Rough Grading - One set of rough grade stakes will be set along the construction centerline of streets at 50-foot stations as required. (If superelevations require intermediate stakes along vertical curves, the County will provide staking at closer intervals.) One set of primary cut and fill stakes will be set for site work. One set of secondary final grade cut and fill stakes will be set where deemed applicable as determined by the Engineer.
- Storm Sewers - Two cut or fill stakes for each inlet, catch basin or manhole will be set at appropriate offsets to the center of the structure. After installation and backfill, inverts will be checked for correctness.
- Sanitary Sewers - Two cut or fill stakes for each manhole or cleanout location will be set at appropriate offsets to the center of the structure. After installation and backfill, inverts will be checked for correctness.
- Water Main - One set of line stakes will be furnished for water mains at 50-foot stations. Additionally, two reference stakes for each valve, hydrant, tee and angle point location will be set concurrently with these line stakes.
- Staking for Embankments - Catch points and one-line stake will be set in those cases where the vertical difference in elevation from the construction centerline to the toe or top of a cut or fill slope exceeds 3 feet. In all other areas, stakes shall be set at an appropriate offset to the street centerline to allow for the preservation of said offsets through the rough grading phase. In both cases the stakes shall be clearly marked with appropriate information necessary to complete the rough grading phase.
- Curb and Gutters - One set of curb and gutter stakes shall be set at an appropriate offset at 25-foot intervals, beginning and end points of curves and curb returns, wheelchair ramps, driveways, and sufficient mid-curve points to establish proper alignment.
- Base and Top Course - One set of final construction centerline grade hubs will be set for each course, at not less than 50-foot stations. No intermediate stakes shall be provided unless superelevations require them. In those circumstances, one grade hub left and right of construction centerline at the transition stations will be set at an appropriate offset to centerline not less than 25-foot stations.
- Adjacent or Adjoining Wetlands - One set of stakes delineating adjacent wetland perimeters will be set at 25 to 50-foot stations as required.
- Illumination and Traffic Signals System - One set of stakes for luminaires and traffic signal pole foundations will be set as required. One set of stakes for vaults, junction boxes, and conduits will be set, only if curb and gutter is not in place at the time of the survey request. If curb and gutter is in place, staking for vaults, junction boxes, and conduits will be provided at an additional expense to the Contractor.

When deemed appropriate by the Engineer, cut sheets will be supplied for curb, storm, sanitary sewer and water lines. Cuts or fills may be marked on the surveyed points but should not be relied on as accurate until a completed cut sheet is supplied.

The Contractor is responsible for staking all other items deemed necessary to construct the project per the Plans and Specifications. All costs associated with Contractor staking shall be incidental to the Work and be included in the Contract unit prices.

### **Structure Survey**

The Engineer is responsible for setting all alignment stakes, slope stakes, and grades necessary for the construction of bridges, noise walls, and retaining walls. The Contractor shall maintain stakes set for construction and maintain the necessary lines and grades.

The survey work by the Engineer will include but not be limited to the following:

- Establish, by placing hubs and/or marked stakes, the location with offsets of foundation shafts and piles.
- Establish offsets to footing centerline of bearing for structure excavation.
- Establish offsets to footing centerline of bearing for footing forms.
- Establish wing wall, retaining wall, and noise wall horizontal alignment.
- Establish retaining wall top of wall profile grade.
- Establish elevation benchmarks for all substructure formwork.
- Check elevations at top of footing concrete line inside footing formwork immediately prior to concrete placement.
- Check column location and pier centerline of bearing at top of footing immediately prior to concrete placement.
- Establish location and plumbness of column forms and monitor column plumbness during concrete placement.
- Establish pier cap and crossbeam top and bottom elevations and centerline of bearing.
- Check pier cap and crossbeam top and bottom elevations and centerline of bearing prior to and during concrete placement.
- Establish grout pad locations and elevations.
- Establish structure bearing locations and elevations, including locations of anchor bolt assemblies.
- Establish box girder bottom slab grades and locations.
- Establish girder and/or web wall profiles and locations.
- Establish diaphragm locations and centerline of bearing.

- Establish roadway slab alignment, grades and provide dimensions from top of girder to top of roadway slab. Set elevations for deck paving machine rails.
- Establish traffic barrier and curb profile.
- Profile all girders prior to the placement of any deadload or construction live load that may affect the girder's profile.

#### **1-05.4(1)E Monuments**

The Contractor shall work to preserve the existing monumentation as provided in RCW 58.09.130 and WAC 332-120. The Contractor shall notify the Engineer immediately if it becomes apparent that a survey marker will be disturbed due to construction. The Contractor shall allow 5 working days for the Engineer to acquire information so that a reference monument may be set. The Engineer will notify the Contractor if or when the monument will be reset to its original position after construction. All costs associated with the replacement of monuments damaged or destroyed prior to being referenced shall be deducted from monies due to the Contractor.

#### **Payment**

Depending on the Contractors means and methods of construction additional Construction staking beyond that described above may be required by the Contractor. Should additional staking be required by the Contractor and all cost for providing additional construction staking shall be included in bid items provided within the proposal

#### **1-05.7 Removal of Defective and Unauthorized Work** (October 1, 2005 APWA GSP)

Supplement this section with the following:

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

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

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be

deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

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

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

#### **1-05.11 Final Inspection**

Delete this section and replace it with the following:

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

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

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

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

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

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

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

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

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

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

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

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

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore, when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first

class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

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

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

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

Delete the sixth and seventh paragraphs of this section.

**1-05.15 Method of Serving Notices**  
(January 4, 2024 APWA GSP)

Revise the second paragraph to read:

All correspondence from the Contractor shall be served and directed to the Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be written in paper format, hand delivered or sent via certified mail delivery service with return receipt requested to the Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

**1-05.16 Water and Power**  
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements and shall bear the costs for power and water necessary for the performance of the work unless the contract includes power and water as a pay item.

Add the following new section:

(November 29, 2022 KC GSP)

## **1-05.17 Project Management Communications – Provided at no cost to Contractor**

### **1-05.17(1) Summary**

The Contractor shall use the communications tool and protocols included in the Contracting Agency's project management software during this project. The use of project management communications as herein described does not replace or change any contractual responsibilities of the participants.

A valid email address, electronic and computer equipment, and internet connections are the responsibility of each project participant. The Contracting Agency will set up the user account.

Nothing in this specification or the subsequent communications supersedes the parties' obligations and rights for copyright or document ownership as established by the Contract Documents. The use of CAD files, processes or design information distributed in this system is intended only for the project specified herein.

### **1-05.17(2) Training & Support**

The Contracting Agency will host an information and training session for Contractor staff in use of the Contracting Agency's project management software at a time to be schedule after contract award. Companies may also use online videos, support articles, online chat and phone support provided by the Contracting Agency's project management software at no cost.

### **1-05.17(3) Project Archive**

The archive will be available to the Contractor at no cost. The archive set will contain only documents that the Contractor has access to during construction. All legal rights in any discovery process are retained. Archive material shall be ordered through the Contracting Agency.

### **1-05.17(4) Authorized Users**

Access to the Contracting Agency's project management software will be by individuals who have been authorized to use it by the Engineer.

1. The Contracting Agency will provide the Contractor with at least five (5) access accounts for the duration of the project. The sharing of user accounts is prohibited.
2. Contractor shall provide Engineer with list of Authorized users including valid email addresses following award of the Contract and scheduling of Contracting Agency provided training.

3. Authorized users will be contacted via e-mail with log-in information.
4. Individuals shall be responsible for the proper use of their passwords and access to data as agents of the Contractor.
5. Only entities with a direct Contract with the Contracting Agency will be allowed to have read/write access (Authorized user) to the software. Read access may be provided to others, if beneficial to the project, including subcontractors and utility providers.

#### **1-05.17(5) Communications**

The use of fax, email and courier communication for this project is discouraged in favor of using the Contracting Agency's project management software to send messages. Communication functions are as follows:

1. Document Integrity and Revisions:
  - a. Documents, comments, drawings, and other data posted to the system remain a permanent component of the project. The originator, time and date are recorded for each document submitted to the system. Submitting a new document or record with a unique ID, originator, and time stamp is the method used to make modifications or corrections.
  - b. The system identifies revised or superseded documents and their predecessors.
  - c. Server or Client-side software enhancements during the life of the project will not alter or restrict the content of data published by the system. System upgrades will not affect access to older documents or software.
2. Document Security: The system provides a method for communication of documents. Documents allow security group assignment to respect the contractual parties' communication with the exception that the Contracting Agency Administrative Users have access to everything. **DO NOT POST PRIVATE OR CONFIDENTIAL ITEMS IN THE DATABASE.**
3. Document Integration: Documents of various types are able to be logically related to one another. For example, requests for information (RFIs), inspector's daily field reports (IDRs), supplemental sketches and photographs can be referenced as related records.
4. Reporting: The system is capable of generating reports for work in progress, and logs for each document type. Summary reports generated by the system are available for project members and are subject to each user's security settings.
5. Notifications and Distribution: Document distribution to project members may be accomplished both within the Contracting Agency's project management software and via email depending on user settings. Project document distribution to parties outside of the project communication



system may be accomplished by secure email of outgoing documents and attachments, readable by a standard email client.

6. Except for paper documents which require original signatures and large format documents (greater than 11 x 17 inches), all other documents shall be submitted by transmission in electronic form into the Contracting Agency's project management software by Authorized users.
  1. Large format documents may be transmitted by hardcopy and electronically via the Contracting Agency's project management software as otherwise agreed, or as otherwise noted in the specifications.
  2. Document Types that shall be transmitted via the Contracting Agency's project management software include, but are not limited to:
    - i. Request for Information (RFI)
    - ii. Change Order (CO)
    - iii. Submittals
    - iv. Transmittals, including record of documents and materials delivered in hard copy
    - v. Meeting Minutes/Notes
    - vi. Application for Payments
    - vii. Review Comments
    - viii. Inspector's Daily Field Reports (IDR)
    - ix. Construction Photographs
    - x. Drawings
    - xi. Supplemental Sketches
    - xii. Schedules
    - xiii. Specifications

#### **1-05.17(6) Record Keeping**

1. The Contracting Agency and their representatives and the Contractor shall respond to electronic documents received from the Contracting Agency's project management software and consider them as if received in paper document form.
2. The Contracting Agency and their representatives and the Contractor reserve the right to reply or respond through the Contracting Agency's project management software to documents actually received in paper document form.
3. The following are examples of paper documents which will require an original signature:
  - a. Contract
  - b. Change Orders

- c. Application & Certificates for Payment
- d. Force Account and Protested Force Account forms
- e. Correspondence by the Contractor constituting notification per Section 1-05.15 of the Special Provisions.

#### **1-05.17(7) Minimum Equipment Requirements**

In addition to other requirements specified in this Section, the Contractor shall be responsible for providing suitable tools and internet access to utilize the Contracting Agency's project management software. Contact the Contracting Agency for equipment requirements and support.

No separate payment will be made for the use of the Contracting Agency's project management software, as this will be considered incidental to the Contract. All costs incurred to carry out the requirements of utilizing and maintaining the Contracting Agency's project management software, including but not limited to, labor, training, equipment, and required tools are the sole responsibility of the Contractor.

### **1-06 CONTROL OF MATERIAL**

#### **1-06.1 Approval of Materials Prior to Use**

##### **1-06.1(4) Fabrication Inspection Expense** *(June 27, 2011 APWA GSP)*

Delete this section in its entirety.

##### **1-06.6 Recycled Materials** *(January 4, 2016 APWA GSP)*

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor's report shall be provided on DOT form 350-075 Recycled Materials Reporting.

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

**1-07.1 Laws to be Observed**  
(October 1, 2005 APWA GSP)

Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well-known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

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

**1-07.2 State Taxes**

Delete this section, including its sub-sections, in its entirety and replace it with the following:

**1-07.2 State Sales Tax**  
(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

#### **1-07.2(1) State Sales Tax — Rule 171**

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

#### **1-07.2(2) State Sales Tax — Rule 170**

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

### **1-07.2(3) Services**

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

### **1-07.6 Permits and Licenses**

Section 1-07.6 is supplemented with the following:

(\*\*\*\*\*)

The Contracting Agency has applied for the below-listed permit(s) for this project. A copy of the permit(s) will be provided once received for informational purposes. Copies of these permits, including a copy of the Transfer of Coverage form, when applicable, are required to be onsite at all times.

Contact with the permitting agencies, concerning the below-listed permit(s), shall be made through the Engineer with the exception of when the Construction Stormwater General Permit coverage is transferred to the Contractor, direct communication with the Department of Ecology is allowed. The Contractor shall be responsible for obtaining Ecology's approval for any Work requiring additional approvals (e.g. Request for Chemical Treatment Form). The Contractor shall obtain additional permits as necessary. All costs to obtain and comply with additional permits shall be included in the applicable Bid items for the Work involved.

**\*\*\* Hydraulic Project Approval Application ID #0042448 \*\*\***

### **1-07.7 Load Limits**

(\*\*\*\*\*)

Section 1-07.7 is supplemented with the following:

If the sources of materials provided by the Contractor necessitates hauling over roads other than County roads, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

### **1-07.9(5) Required Documents**

#### **1-07.9(5)A General**

*(July 8, 2024 APWA GSP)*

This section is revised to read as follows:

All Statements of Intent to Pay Prevailing Wages, Affidavits of Wages Paid and Certified Payrolls, including a signed Statement of Compliance for Federal-aid projects, shall be submitted to the Engineer and to the State L&I online Prevailing Wage Intent & Affidavit (PWIA) system. When apprenticeship is a requirement of the contract, include in PWIA all apprentices.

#### **1-07.11 Requirements for Nondiscrimination**

##### **1-07.11(2) Contractual Requirements**

*(November 25, 2024 APWA GSP)*

Delete item 11 of the first paragraph of Section 1-07.11(2).

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

Section 1-07.17 is supplemented with the following:

*(October 3, 2022 WSDOT GSP, Option 2)*

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

Public and private utilities, or their Contractors, will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocation, replacement, or construction will be done during the prosecution of the work for this project. It is anticipated that utility adjustment, relocation, replacement, or construction within the project limits will be completed as follows:

##### **\*\*\* Relocation or adjustment of existing communication lines. \*\*\***

The Contractor shall attend a mandatory utility preconstruction meeting with the Engineer, all affected subcontractors, and all utility owners and their Contractors prior to beginning onsite work.

The following addresses and telephone numbers of utility companies or their Contractors that will be located within the project limits are supplied for the Contractor's use:

**\*\*\***

**Cascade Natural Gas  
P.O. Box 539  
Bremerton, WA 98337**

**Contact: Kendall Youngblood**  
**Phone: (360) 405-4230**

**Comcast**  
**1225 Sylvan Way**  
**Bremerton, WA 98337**  
**Contact: John Doane**  
**Phone: (253) 508-2081**

**North Perry Water District**  
**2901 Perry Ave, Ste 15**  
**Bremerton, WA 98310**  
**Contact: Andrew Cook**  
**Phone: (360) 865-0763**

**Puget Sound Energy**  
**6522 Kitsap Way**  
**Bremerton, WA 98312**  
**Contact: Errol Burgos**  
**Phone: (425) 324-5341**  
\*\*\*

Section 1-07.17 is supplemented with the following new subsection:

*(November 29, 2022 KC GSP)*

**1-07.17(3) Protection and Support of Existing Utilities:**

**Description**

The Contractor shall provide support and protection of all existing utility facilities crossing the work area during construction. All utilities shall remain fully operational throughout the life of this Contract. The Contractor shall be responsible for coordinating with the Engineer and the utility owners for the relocation of the utilities, or the erection of temporary support for them. The Contractor shall be responsible for the erection of all temporary support and temporary relocation necessary to complete the work.

The Contractor shall “pothole” and expose the existing underground utilities crossing the route of the new improvements. Excavation immediately adjacent to the existing conduits shall be made by hand methods in compliance with Washington State requirements.

**Payment**

Payment will be made for the following bid item included on the proposal:

“Protection & Support of Existing Utilities”, per lump sum.

The lump sum Contract price for “Protection and Support of Existing Utilities” shall be full pay for all labor, tools, materials and equipment necessary to complete the work and for any costs incurred by the Contractor due to the loss of work efficiency as a result of the requirement to work adjacent to the relocated or temporarily supported utilities.

#### **1-07.18 Public Liability and Property Damage Insurance**

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

##### **1-07.18 Insurance**

*(January 4, 2024 APWA GSP)*

##### **1-07.18(1) General Requirements**

- A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer’s financial condition.
- B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor’s Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.
- C. If any insurance policy is written on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period (“tail”) or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.
- D. The Contractor’s Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency’s insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor’s insurance and shall not contribute with it.



- E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.
- F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency
- G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.
- I. Under no circumstances shall a wrap up policy be obtained, for either initiating or maintaining coverage, to satisfy insurance requirements for any policy required under this Section. A "wrap up policy" is defined as an insurance agreement or arrangement under which all the parties working on a specified or designated project are insured under one policy for liability arising out of that specified or designated project.

**1-07.18(2) Additional Insured**

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

#### **1-07.18(3) Subcontractors**

The Contractor shall cause each subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by subcontractors.

The Contractor shall ensure that all subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

#### **1-07.18(4) Verification of Coverage**

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders

Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

**1-07.18(5) Coverages and Limits**

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

**1-07.18(5)A Commercial General Liability**

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

\$1,000,000	Each Occurrence
\$2,000,000	General Aggregate
\$2,000,000	Products & Completed Operations Aggregate
\$1,000,000	Personal & Advertising Injury each offence
\$1,000,000	Stop Gap / Employers' Liability each accident

**1-07.18(5)B Automobile Liability**

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

\$1,000,000 Combined single limit each accident

**1-07.18(5)C Workers' Compensation**

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

**1-07.23 Public Convenience and Safety**

(\*\*\*\*\*)

Section 1-07.23 is supplemented with the following:

The Contractor shall maintain safe pedestrian passage through the work area at all times.

**1-07.24 Rights of Way**

*(July 23, 2015 APWA GSP)*

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours' notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

## **1-08 PROSECUTION AND PROGRESS**

Add the following new section:

### **1-08.0 Preliminary Matters** *(May 25, 2006 APWA GSP)*

Add the following new section:

#### **1-08.0(1) Preconstruction Conference** *(July 8, 2024 APWA GSP)*

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To review DBE Requirements, Training Plans, and Apprenticeship Plans, when applicable.
5. To establish normal working hours for the work;
6. To review safety standards and traffic control; and

7. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

Add the following new section:

**1-08.0(2) Hours of Work**

(\*\*\*\*\*)

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 6:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than 2 working days prior to the day(s) the Contractor is requesting to change the hours.

If the Contracting Agency approves such a deviation, such approval may be subject to certain other conditions, which will be detailed in writing. For example:

1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.

3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved the non-working day for the week will be charged as a working day.
5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll

## **1-08.1 Subcontracting**

### **1-08.1(9) Required Subcontract Clauses**

#### **1-08.1(9)B Clauses Required in Subcontracts of All Tiers**

The second paragraph of Section 1-08.1(9)B is supplemented with the following:

*(January 24, 2024 WSDOT GSP, Option 1)*

16. 1-07.11 **Requirements for Nondiscrimination** – Item 11 from Section 1-07.11(2).

## **1-08.3 Progress Schedule**

### **1-08.3(2)B Type B Progress Schedule**

*(January 4, 2024 APWA GSP)*

Revise the first paragraph to read:

The Contractor shall submit a preliminary Type B Progress Schedule at or prior to the preconstruction conference. The preliminary Type B Progress Schedule shall comply with all of these requirements and the requirements of Section 1-08.3(2), except that it may be limited to only those activities occurring within the first 60-working days of the project.

Revise the first sentence of the second paragraph to read:

The Contractor shall submit one copy of a Type B Progress Schedule depicting the entire project no later than 21-calendar days after the preconstruction conference.

## **1-08.4 Prosecution of Work**

Section 1-08.4 is deleted and replaced with the following:

### **1-08.4 Notice to Proceed and Prosecution of Work** *(July 23, 2015 APWA GSP)*

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

The first sentence of Section 1-08.4 is revised to read:

*(August 7, 2006 WSDOT GSP, Option 3)*

The Contractor shall begin work no earlier than \*\*\* **June 15, 2025**\*\*\*

#### **1-08.5 Time for Completion**

Section 1-08.5 is supplemented with the following:

*(March 13, 1995 WSDOT GSP, Option 7)*

This project shall be physically completed within \*\*\* **45** \*\*\* working days.

*(December 30, 2022 APWA GSP, Option A)*

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and all partial or whole days the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the



Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
  - a. Certified Payrolls (per Section 1-07.9(5)).
  - b. Material Acceptance Certification Documents
  - c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
  - d. Final Contract Voucher Certification
  - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
  - f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
  - g. Property owner releases per Section 1-07.24

#### **1-08.9 Liquidated Damages**

*(March 3, 2021 APWA GSP, Option A)*

Replace Section 1-08.9 with the following:

Time is of the essence of the Contract. Delays inconvenience the traveling public, obstruct traffic, interfere with and delay commerce, and increase risk to Highway users. Delays also cost tax payers undue sums of money, adding time needed for administration, engineering, inspection, and supervision.

Accordingly, the Contractor agrees:

1. To pay liquidated damages in the amount of \*\*\* **\$1,900** \*\*\* for each working day beyond the number of working days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, liquidated damages identified above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

Liquidated damages will not be assessed for any days for which an extension of time is granted. No deduction or payment of liquidated damages will, in any degree, release the Contractor from further obligations and liabilities to complete the entire Contract.

## **1-09 MEASUREMENT AND PAYMENT**

### **1-09.2 Weighing Equipment**

#### **1-09.2(1) General Requirements for Weighing Equipment** *(January 4, 2024 APWA GSP, Option B)*

Revise item 4 of the fifth paragraph to read:

4. Test results and scale weight records for each day's hauling operations are provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027A, Scaleman's Daily Report, unless the printed ticket contains the same information that is on the Scaleman's Daily Report Form. The scale operator must provide AM and/or PM tare weights for each truck on the printed ticket.

#### **1-09.2(5) Measurement**

*(December 30, 2022 APWA GSP)*

Revise the first paragraph to read:

**Scale Verification Checks** – At the Engineer's discretion, the Engineer may perform verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

#### **1-09.6 Force Account**

*(December 30, 2022 APWA GSP)*

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by the Engineer.

#### **1-09.9 Payments**

*(July 8, 2024, APWA GSP, Option B)*

Delete the fourth paragraph and replace it with the following:

Progress payments for completed work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the Final Payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump sum breakdown for that item, or absent such a breakdown, based on the Engineer's determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.

4. Change Orders — entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of Progress Payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.

## **1-09.11 Disputes and Claims**

### **1-09.11(3) Time Limitation and Jurisdiction**

*(December 30, 2022 APWA GSP)*

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that all claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that all such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to all such claims or causes of action. It is further mutually agreed by the parties that when claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

## **1-09.13 Claims Resolution**

### **1-09.13(3) Arbitration**

#### **1-09.13(3)A Arbitration General**

*(January 19, 2022 APWA GSP)*

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

## **1-10 TEMPORARY TRAFFIC CONTROL**

### **1-10.2 Traffic Control Management**

#### **1-10.2(1) General**

Section 1-10.2(1) is supplemented with the following:

*(October 3, 2022 WSDOT GSP, Option 1)*

The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust  
27055 Ohio Ave.  
Kingston, WA 98346  
(360) 297-3035  
<https://www.nwlett.edu>

Evergreen Safety Council  
12545 135<sup>th</sup> Ave. NE  
Kirkland, WA 98034-8709  
1-800-521-0778  
<https://www.esc.org>

The American Traffic Safety Services Association  
15 Riverside Parkway, Suite 100  
Fredericksburg, Virginia 22406-1022  
Training Dept. Toll Free (877) 642-4637  
Phone: (540) 368-1701  
<https://atssa.com/training>

Integrity Safety  
13912 NE 20th Ave.  
Vancouver, WA 98686  
(360) 574-6071  
<https://www.integritysafety.com>

US Safety Alliance

(904) 705-5660  
<https://www.ussafetyalliance.com>

K&D Services Inc.  
2719 Rockefeller Ave.  
Everett, WA 98201  
(800) 343-4049  
<https://www.kndservices.net>[https://www.ussafetyalliance.com/](https://www.ussafetyalliance.com)

#### **1-10.2(2) Traffic Control Plans (TCP)**

(\*\*\*\*\*)

Section 1-10.2(2) is supplemented with the following:

##### **Development of Traffic Control Plans**

Development of a Traffic Control Plan shall be the responsibility of the Contractor. The Contractor shall submit their Traffic Control Plan for the Engineer's review 5 working days prior to the Preconstruction Meeting. The Engineer shall review the Plan and at the Preconstruction Meeting give written approval or discuss the revisions required. Subsequent reviews or revisions, if required, shall be accomplished by the Engineer within 5 working days after submittal. No work shall be undertaken until the Contractor has written approval of the Traffic Control Plan. The Contractor shall incorporate the following parameters into the Traffic Control Plan:

- The roadway shall be open to all traffic between the hours of 6:00pm and 6:00am.
- The Contractor may close the roadway to vehicle traffic between the hours of 6:00am and 6:00pm for ten (10) days during the installation of the soldier pile wall. Pedestrian access shall be maintained.
- The Contractor's Traffic Control Plan shall include provisions for how to accommodate emergency vehicle access during the daytime roadway closure should it become necessary.

#### **1-10.4 Measurement**

##### **1-10.4(3) Reinstating Unit Items With Lump Sum Traffic Control**

Section 1-10.4(3) is supplemented with the following:

*(November 2, 2022 WSDOT GSP, Option 1)*

The bid proposal contains the item "Project Temporary Traffic Control," lump sum and the additional temporary traffic control items listed below. The provisions of Section 1-10.4(1), Section 1-10.4(3), and Section 1-10.5(3) shall apply.

"Construction Signs, Class A", per square foot.

“Portable Changeable Message Sign”, per hour.

**END OF DIVISION 1**

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## **DIVISION 2 EARTHWORK**

### **2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP**

(\*\*\*\*\*)

#### **2-01.1 Description**

Section 2-01.1 is supplemented with the following:

*(March 13, 1995 WSDOT GSP, Option 1)*

Clearing and grubbing on this project shall be performed within the following limits:

\*\*\* Clearing and grubbing on this project shall be performed as shown on the Plans.

All trees within the clearing limits shall be removed and disposed of, unless otherwise specifically noted in the Plans. Trees outside of the clearing limits noted on the Plans to be removed shall be close-cut to ground level (root systems left in place) and included in the payment for Clearing and Grubbing.\*\*\*

#### **2-01.2 Disposal of Usable Material and Debris**

The third paragraph in Section 2-01.2 is revised to read:

The Contractor shall use Disposal Method No. 2 per Section 2-01.2(2) of the Standard Specifications.

### **2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

(\*\*\*\*\*)

#### **2-02.1 Description**

Section 2-02.1 is supplemented with the following:

This Work also includes the removal and disposal of the following materials as shown in the Plans or as identified by the Engineer:

- Removing asphalt concrete pavement

All materials removed shall become the property of the Contractor and disposed of per Section 2-01.2 of these Special Provisions, unless otherwise noted in the Plans or in these Special Provisions.

This Work will include decommissioning monitoring wells in accordance with the requirements of WAC 173-160-460 as shown in the Plans.

## 2-02.3 Construction Requirements

### 2-02.3(2) Removal of Bridges, Box Culverts, and Other Drainage Structures

Section 2-02.3(2) is supplemented with the following:

The table below lists drainage structures (catch basins and piping) to be removed in full and disposed of. All locations and lengths are approximate.

#### Drainage Structures:

Station	Offset	Structure
102+81	18' RT	24-inch diam. standpipe
105+00	27' LT	24-inch diam. standpipe
108+99	8' LT	Catch Basin Type 1
109+74	9' RT	Catch Basin Type 1

#### Drainage Pipes:

Start Station, Offset	End Station, Offset	Length (LF)	Diam./Material
108+99, 7.5' LT	109+74, 9' LT	76	12-inch, CPEP
109+74, 9' LT	109+84, 10' RT	22	12-inch, CMP

### 2-02.3(3) Removal of Pavement, Sidewalks, Curbs and Gutters

Section 2-02.3(3) is supplemented with the following:

*(September 8, 1997 WSDOT GSP, Option 1)*

The approximate thickness of the \*\*\* asphalt concrete \*\*\* pavement is:

<u>Station</u>	<u>Depth of Asphalt</u>
104+50 to 107+41	4 inches
107+41 to 108+75	24 to 36 inches
108+75 to 111+18	4 inches

#### Saw Cut Asphalt Concrete Pavement

Where shown in the plans or where designated by the Engineer, the Contractor shall saw cut the asphalt concrete pavement prior to removal of any pavement.

The equipment and procedures used to make the vertical cut shall be approved by the Engineer. No skip cutting will be allowed.

The Contractor shall make a vertical saw cut to delineate the areas of pavement to be removed from those areas of pavement to remain. The removed pavement shall become the property of the Contractor and shall be promptly removed from the project.

Damage caused to portions of the pavement to remain, due to the Contractor's operations, shall be repaired by the contractor at no expense to the Contracting Agency.

#### **Removing Asphalt Concrete Pavement**

Where shown in the Plans or where designated by the Engineer the existing asphalt concrete pavement shall be removed and promptly removed from the project site.

### **2-02.3(3) Decommissioning of Monitoring Wells.**

Wells to be decommissioned are monitoring wells installed in borings used to collect project design data. Meet the requirements of WAC 173-160-460 for well decommissioning.

Submit a completed Notice of Intent Form to Decommission a Well with Department of Ecology in accordance with WAC 173-160-420.

### **2-02.4 Vacant**

Section 2-02.4, including title, is deleted and replaced with the following:

#### **2-02.4 Measurement**

No separate measurement for payment will be made for saw cutting. Saw cutting that is required to accomplish other bid items shall be included with such associated bid item(s) in the Proposal.

No specific unit of measurement will apply to the lump sum item of "Monitoring Well Decommissioning".

### **2-02.5 Payment**

Section 2-02.5 is supplemented with the following:

"Removing Asphalt Conc. Pavement", per square yard.

"Monitoring Well Decommissioning", lump sum.

The unit contract price for "Monitoring Well Decommissioning" shall be full pay for all labor, tools, equipment, fees, and materials necessary to perform the decommissioning of the monitoring wells indicated on the Plans.

## **2-03 ROADWAY EXCAVATION AND EMBANKMENT**

(\*\*\*\*\*)

### **2-03.1 Description**

Section 2-03.1 is supplemented with the following:

This work shall also include the following Work:

- Excavation, haul, and placement of special borrow,
- Re-grading the existing approach to meet the new roadway pavement constructed for this project as shown in the Plans. Approach is defined as a connection providing private vehicular access to and from the County road system,

### **2-03.2 Vacant**

Section 2-03.2, including title, is deleted and replaced with the following:

#### **2-03.2 Materials**

Special Borrow shall meet the requirements of Section 9-03.14(5) of these Special Provisions.

### **2-03.3 Construction Requirements**

#### **2-03.3(7) Disposal of Surplus Material**

Section 2-03.3(7) is revised to read:

A waste site has not been provided by the Contracting Agency for the disposal of excess materials and construction debris. The Contractor shall be solely responsible for loading, hauling and the disposal of all surplus material and construction debris in a manner complying with all local, state and federal statutes and regulations.

#### **2-03.3(12) Overbreak**

Section 2-03.3(12) is supplemented with the following:

Trench excavation outside the trench width pay limits shall be classified as overbreak. Removal and replacement of overbreak material, including backfill and compaction requirements, shall meet the same conditions as the trench backfill. Sloughing of the trench walls shall not be considered as slides.

### **2-03.3(13) Borrow**

Section 2-03.3(13) is supplemented with the following:

The Contractor must provide the Engineer with written notice at least 24 hours before hauling and placing backfill materials from off-site locations. This notice is essential in scheduling inspection personnel and item quantity ticket takers. Failure by the Contractor to begin hauling and placing materials at the agreed time may result in a penalty equal to the standby cost incurred by the County. The penalty will be calculated and deducted from the item being hauled.

### **2-03.3(14) Embankment Construction**

Section 2-03.3(14) is supplemented with the following:

#### **2-03.3(14)N Special Borrow Including Haul**

Where shown in the Plans or as directed by the Engineer, the Contractor shall use Special Borrow Including Haul meeting the requirements of Section 9-03.14(5) of these Provisions to:

1. Build embankments.
2. Backfill excavation of unsuitable foundation materials.
3. Backfill excavation of sub excavation materials.
4. Backfill trenches when select backfill material is required in accordance with Section 2-09 or Section 7-08.

Special Borrow shall be compacted according to Section 2-03.3(14)C, Method B and 2-03.3(14)D.

#### **2-03.3(14)O Approach Excavation and Embankment Compaction**

The Contractor shall grade each approach to the lines and grades established by the Engineer and as shown in the Plans. All fills shall be compacted in accordance with Section 2-03.3(14)C, Method B. Excess material and debris shall be removed from the site by the Contractor.

### **2-03.4 Measurement**

Section 2-03.4 is supplemented with the following:

Special Borrow including Haul will be measured by the ton. Measurement when used to build embankments and to backfill for unsuitable foundation materials will be to the actual limits ordered by the Engineer. When used in backfill of sewer trenches, measurement will be for material placed inside the limits defined in Section 2-09.4.

### **Computation of Excavation and Embankment Quantities**

Only one determination of the original ground elevation will be made on this project. Measurement for Roadway Excavation Including Haul and Embankment Compaction will be based on the original ground elevation recorded previous to the award of this Contract minus a factor to account for the removal of organic material during clearing and grubbing. It is anticipated that depth of removal of organic material during clearing and grubbing for this project will vary and a factor of minus 6 inches will be used to determine ground elevation after clearing and grubbing. Control stakes will be set during construction to provide the Contractor with all essential information for the construction of excavation and embankments.

If discrepancies are discovered in the ground elevations which will materially affect the quantities of earthwork, the original computations of earthwork quantities will be adjusted accordingly.

Earthwork quantities will be computed, either manually or by means of electronic data processing equipment, by use of the average end area method or by the finite element analysis method utilizing digital terrain modeling techniques.

### **2-03.5 Payment**

Section 2-03.5 is supplemented with the following:

“Special Borrow Incl. Haul”, per ton.

The unit contract price per ton for Special Borrow Incl. Haul shall be full compensation for all costs incurred for excavating, loading, hauling and placing the material and compaction.

Approach excavation and embankment compaction of approach subgrade shall be included in the unit Contract prices for “Roadway Excavation Incl. Haul”

All costs involved in the loading, hauling and the disposal of all surplus material and construction debris shall be included in the bid prices of the items shown on the proposal and no further payment will be made.

### **2-06 SUBGRADE PREPARATION**

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## **2-06.3 Construction Requirements**

### **2-06.3(1) Subgrade for Surfacing**

Section 2-06.3(1) is supplemented with the following:

The material used to build the roadway to subgrade shall be Special Borrow per Section 2-03 in these special provisions.

## **2-09 STRUCTURE EXCAVATION**

### **2-09.3 Construction Requirements**

#### **2-09.3(1)A Staking, Cross-Sectioning, and Inspecting**

Section 2-09.3(1)A is supplemented with the following:

At least 24 hours prior to commencing any excavation, the Contractor shall expose by pot-holing existing underground telephone cables, gas mains, sewer mains, water mains or any other underground utility shown in the Plans that crosses the location of the new structure to be installed under this contract. Excavation immediately adjacent to the existing utilities shall be by hand methods in compliance with Washington State requirements.

When directed by the Engineer, the Contractor shall expose by pot-holing crossings of new pipe and utilities not shown in the Plans.

#### **2-09.3(1)C Removal of Unstable Base Material**

Section 2-09.3(1)C is revised to read:

When the material at the bottom of an excavation is not stable enough to support the Structure, the Contractor shall excavate below grade and replace the unstable material with special borrow. The excavation will be paid for as Roadway Excavation Incl. Haul per cubic yard in accordance with Section 2-03 of the Standard Specifications.

Special borrow shall meet the requirements of Section 9-03.14(5) of these Special Provisions. It shall be placed in layers not more than 6 inches thick with each layer compacted to 95 percent of the maximum density determined by the Compaction Control Test, Section 2-03.3(14)D.

### **2-09.4 Measurement**

Paragraphs 1 through 9 of Section 2-09.4 are deleted and replaced with the following:

No measurement will be made for Structure Excavation Class B or Structure Excavation Class B including Haul. All costs for such excavation shall be included in the unit contract price shown in the proposal for the item to be installed.

The second sentence in the eleventh paragraph of Section 2-09.4 is revised to read:

No specific unit of measurement shall apply to the lump sum item of shoring or extra excavation Class B.

The twelfth paragraph of Section 2-09.4 is deleted.

## **2-09.5 Payment**

Delete the second and fourth paragraphs of Section 2-09.5 referencing "Structure Excavation Class B" and "Structure Excavation Class B including Haul" and supplement with the following:

All costs for Structure Excavation Class B or Structure Excavation Class B including Haul shall be included in the unit price for the item to be installed and no further payment will be made.

The first sentence in the sixth paragraph of Section 2-09.5 is revised to read:

If the Engineer orders the Contractor to excavate below the elevations shown in the Plans, the excavation will be paid for as Roadway Excavation including Haul per cubic yard in accordance with Section 2-03 of the Standard Specifications.

The twelfth and thirteenth paragraphs of Section 2-09.5 are deleted and replaced with the following:

"Shoring or Extra Excavation Class B", lump sum.

The lump sum Contract price for Shoring or Extra Excavation Class B shall be full pay for all excavation, backfill, compaction and other Work required when extra excavation is used in lieu of constructing shoring. If Special Borrow is required for backfilling within the limits of the Structure Excavation, it shall also be required as backfill material for the extra excavation at the Contractor's expense.

## **END OF DIVISION 2**



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## **DIVISION 4 BASES**

### **4-04 BALLAST AND CRUSHED SURFACING**

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#### **4-04.3 Construction Requirements**

##### **4-04.3(7) Miscellaneous Requirements**

Section 4-04.3(7) is supplemented with the following:

The Contractor must provide the Engineer with written notice at least 24 hours before hauling and placing surfacing materials from off-site locations. This notice is essential in scheduling inspection personnel and item quantity ticket takers. Failure by the Contractor to begin hauling and placing materials at the agreed time may result in a penalty equal to the standby cost incurred by the County. The penalty will be calculated and deducted from the item being hauled.

##### **4-04.4(4) Measurement**

Section 4-04.4 the sixth paragraph is deleted and replaced with the following:

No separate measurement for payment will be made for water in placing and compacting surfacing materials.

## **END OF DIVISION 4**

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## **DIVISION 5 SURFACE TREATMENTS AND PAVEMENTS**

### **5-04 HOT MIX ASPHALT**

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Delete Section 5-04, Hot Mix Asphalt, and replace it with the following:

#### **5-04.1 Description**

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

#### **5-04.2 Materials**

Materials shall meet the requirements of the following sections:

Asphalt Binder	9-02.1(4)
Cationic Emulsified Asphalt	9-02.1(6)
Anti-Stripping Additive	9-02.4
HMA Additive	9-02.5
Aggregates	9-03.8
Recycled Asphalt Pavement (RAP)	9-03.8(3)B, 9-03.21
Reclaimed Asphalt Shingles (RAS)	9-03.8(3)B, 9-03.21
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP.

If the Contractor wishes to utilize High RAP/Any RAS, the design must be listed on the WSDOT Qualified Products List (QPL).

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01. Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

#### **5-04.2(1) How to Get an HMA Mix Design on the QPL**

If the Contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

#### **5-04.2(1)A Vacant**

#### **5-04.2(2) Mix Design - Obtaining Project Approval**

No paving shall begin prior to the approval of the mix design by the Engineer.

**Nonstatistical** evaluation will be used for all HMA not designated as Commercial HMA in the Contract documents.

**Commercial** evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

**Nonstatistical Mix Design.** Fifteen days prior to the first day of paving the Contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.

- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall:

- Be designed for \*\*\*3\*\*\* million equivalent single axle loads (ESALs).
- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324 or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

**Commercial Evaluation Mix Design.** Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (for commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

For the Bid Item Commercial HMA, the Contractor shall select a class of HMA and design level of ESALs appropriate for the required use.

#### **5-04.2(2)B Using Warm Mix Asphalt Processes**

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- Before using additives, obtain the Engineer's approval using WSDOT Form 350-076 to describe the proposed additive and process.

### **5-04.3 Construction Requirements**

#### **5-04.3(1) Weather Limitations**

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

**Minimum Surface Temperature for Paving**

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F
0.10 to .20	45°F	35°F
More than 0.20	35°F	35°F

#### **5-04.3(2) Paving Under Traffic**

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed, and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.



All costs in connection with performing the Work in accordance with these requirements shall be included in the unit Contract prices for the various Bid items involved in the Contract.

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

#### **5-04.3(3)A Mixing Plant**

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

1. **Equipment for Preparation of Asphalt Binder** – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.
2. **Thermometric Equipment** – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.
3. **Heating of Asphalt Binder** – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.
4. **Sampling and Testing of Mineral Materials** – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall

provide for the setup and operation of the field-testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).

5. **Sampling HMA** – The HMA plant shall provide for sampling HMA by one of the following methods:

- a. A mechanical sampling device attached to the HMA plant.
- b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

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

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The Contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyor shall be in operation during the process of applying the release agent.

#### **5-04.3(3)C Pavers**

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

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

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

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

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

Where an MTD/V is required by the Contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.

2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

#### **5-04.3(3)E Rollers**

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

#### **5-04.3(4) Preparation of Existing Paved Surfaces**

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one-part water to one-part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

#### **5-04.3(4)A Crack Sealing**

When the Proposal includes a pay item for crack sealing, seal cracks in accordance with Section 5-03.

#### **5-04.3(4)B Vacant**

#### **5-04.3(4)C Pavement Repair**

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

#### **5-04.3(5) Producing/Stockpiling Aggregates and RAP**

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

#### **5-04.3(5)A Vacant**

#### **5-04.3(6) Mixing**

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

#### **5-04.3(7) Spreading and Finishing**

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1"	0.35 feet
HMA Class ¾" and HMA Class ½"	
wearing course	0.30 feet
other courses	0.35 feet
HMA Class ⅜"	0.15 feet

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

#### **5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA**

For HMA accepted by nonstatistical evaluation, the aggregate properties of sand equivalent, uncompacted void content, and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

#### **5-04.3(9) HMA Mixture Acceptance**

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in accordance with this section.

#### **HMA Tolerances and Adjustments**

- 1. Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows:

For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%



Air Voids, Va	2.5% min. and 5.5% max	N/A
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For Aggregates in the mixture:

- a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.

2. Job Mix Formula Adjustments – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.

- a. **Aggregates** –2 percent for the aggregate passing the 1½", 1", ¾", ½", ⅜", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).
- b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent.

#### 5-04.3(9)A Vacant

#### 5-04.3(9)B Vacant

#### 5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

#### **5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots**

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Sampling and testing for evaluation shall be performed on the frequency of one sample per 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 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 CPF shall be performed.

#### **5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing**

Testing of HMA for compliance of  $V_a$  will at the option of the Contracting Agency. If tested, compliance of  $V_a$  will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

#### **5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors**

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a CPF using the following price adjustment factors:

<b>Table of Price Adjustment Factors</b>	
<b>Constituent</b>	<b>Factor “f”</b>
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 ( $V_a$ ) (where applicable)	20

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

#### **5-04.3(9)C5 Vacant**

#### **5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments**

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the CPF.

#### **5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests**

The Contractor may request a subplot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency,  $V_a$ . The results of the retest will be used for the acceptance of the HMA in place of the original subplot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of \$500 per sample.

#### **5-04.3(9)D Mixture Acceptance – Commercial Evaluation**

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the CPF.

#### **5-04.3(10) HMA Compaction Acceptance**

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a CPF of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be

determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or Roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core", the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item "Roadway Core", the Contracting Agency will obtain the cores.

For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

### **Test Results**

For a subplot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative

density of the subplot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the subplot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after the test results for the subplot have been provided or made available to the Contractor. Core locations shall be outside of wheel paths and as determined by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the Contract at the rate of \$200 per core and the Contractor shall pay for the cost of the traffic control.

#### **5-04.3(10)A HMA Compaction – General Compaction Requirements**

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced with new hot mix that shall be immediately compacted to conform to the surrounding area.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option, provided the specified densities are attained. Unless the Engineer has approved otherwise, rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F. Regardless of mix temperature, a roller shall not be operated in a mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode on bridge decks.

#### **5-04.3(10)B HMA Compaction - Cyclic Density**

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A \$500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

#### **5-04.3(10)C Vacant**

#### **5-04.3(10)D HMA Nonstatistical Compaction**

#### **5-04.3(10)D1 HMA Nonstatistical Compaction - Lots and Sublots**

HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing performed by the Contracting Agency dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 400 tons, whichever is less except that the final subplot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per subplot per WSDOT T 738.

The subplot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

#### **5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing**

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each 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.

##### **5-04.3(11)B Rejection by Contractor**

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

##### **5-04.3(11)C Rejection Without Testing (Mixture or Compaction)**

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

##### **5-04.3(11)D Rejection - A Partial Sublot**

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being



defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

#### **5-04.3(11)E Rejection - An Entire Sublot**

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional samples and the original sublot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

#### **5-04.3(11)F Rejection - A Lot in Progress**

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

1. When the CPF of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PF for any constituent or the CPF of a lot in progress is less than 0.75.

#### **5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)**

An entire lot with a CPF of less than 0.75 will be rejected.

### **5-04.3(12) Joints**

#### **5-04.3(12)A HMA Joints**

##### **5-04.3(12)A1 Transverse Joints**

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed, and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The

wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

#### **5-04.3(12)A2 Longitudinal Joints**

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not less than the maximum aggregate size or more than  $\frac{1}{2}$  of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

#### **5-04.3(12)B Bridge Paving Joint Seals**

Bridge Paving Joint Seals shall be in accordance with Section 5-03.

#### **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  $\frac{1}{8}$  inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than  $\frac{1}{4}$  inch in 10 feet from the rate of transverse slope shown in the Plans.

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 and Pre-Planing Briefing (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

#### **5-04.3(14) Planing Bituminous Pavement**

The planing plan must be approved by the Engineer and a pre-planing meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planing submittals.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints

in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

#### **5-04.3(14)A Pre-Planing Metal Detection Check**

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

#### **5-04.3(14)B Paving and Planing Under Traffic**

##### **5-04.3(14)B1 General**

In addition, the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:
  - a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial closure must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).

- b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
  - c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
  - d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
  - e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.
2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.
  3. Permanent pavement marking must comply with Section 8-22.

#### **5-04.3(14)B2 Submittals - Planing Plan and HMA Paving Plan**

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working

Days in advance. The traffic control plan must show where police officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.
2. A copy of each intersection's traffic control plan.
3. Haul routes from supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
4. Names and locations of HMA supplier facilities to be used.
5. List of all equipment to be used for paving.
6. List of personnel and associated job classification assigned to each piece of paving equipment.
7. Description (geometric or narrative) of the scheduled sequence of planing and of paving and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.
8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
9. A copy of the approved Mix Designs.
10. Tonnage of HMA to be placed each day.
11. Approximate times and days for starting and ending daily operations.

#### **5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing**

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing

operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other Contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both the Paving and Planing:
  - a. The actual times of starting and ending daily operations.
  - b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
  - c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, public convenience and safety, and other Contractors who may operate in the Project limits.
  - d. Notifications required of Contractor activities and coordinating with other entities and the public as necessary.
  - e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and paving.
  - f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed.
  - g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, streetcar rail, and castings, before planing as per Section 5-04.3(14)B2.
  - h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
  - i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.

j. Other items the Engineer deems necessary to address.

2. Paving – additional topics:

- a. When to start applying tack and coordinating with paving.
- b. Types of equipment and numbers of each type of equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type of equipment as it relates to meeting Specification requirements.
- c. Number of JMFs to be placed, and if more than one JMF is used, how the Contractor will ensure different JMFs are distinguished, how pavers and how MTVs are distinguished, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.
- d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and supplier shutdown of operations.
- e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

**5-04.3(15) Sealing Pavement Surfaces**

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

**5-04.3(16) HMA Road Approaches**

Construct HMA approaches at the locations shown in the Plans or where staked by the Engineer, 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.

Temporary pavement marking will not be measured. All costs for providing and removal of temporary pavement marking shall be included the unit contract price per ton for HMA Class ½ inch PG 64-22 shown in the proposal.

**5-04.5 Payment**



Payment will be made for each of the following Bid items that are included in the Proposal:

“HMA Cl. \_\_\_\_ PG \_\_\_\_”, per ton.

The unit Contract price per ton for “HMA Cl. \_\_\_\_ PG \_\_\_\_” shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

## **END OF DIVISION 5**



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## **DIVISION 6 STRUCTURES**

### **6-16 SOLDIER PILE AND SOLDIER PILE TIEBACK WALLS**

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#### **6-16.3 Construction Requirements**

##### **6-16.3(3) Shaft Excavation**

Paragraph 8 of Section 6-16.3(3) will be replaced with the following:

Contractor shall not drill sequential shafts on the same working day unless approved by the Engineer. Contractor shall drill every other shaft and wait at least 24 hours for concrete to cure before drilling the remaining shafts.

##### **6-16.3(4) Installing Soldier Piles**

Paragraph 3 of Section 6-16.3(4) will be amended with the following:

The upper 10 feet of the steel soldier piles shall be painted for corrosion protection.

##### **6-16.3(5) Backfilling Shaft**

Item 1 of Section 6-16.3(5) will be replaced with the following:

Soldier pile shafts shall be backfilled with Type 2 lean mix concrete per Section 6-02.3(2)D.

**END OF DIVISION 6**

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## **DIVISION 7 DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATERMAINS AND CONDUITS**

### **7-01 DRAINS**

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#### **7-01.4 Measurement**

Section 7-01.4 is supplemented with the following:

The unit Contract price per linear foot for drain pipe of the kind and size specified shall be full pay for all Work to complete the installation, including but not limited to trench excavation, laying and jointing pipe and fittings, approved couplings and adaptors, import and placement of backfill within and above the pipe zone, compaction, pavement restoration, adjustment of inverts to manholes, and cleanup as shown in the Plans.

### **7-04 STORM SEWERS**

(\*\*\*\*\*)

#### **7-04.2 Materials**

Section 7-04.2 is supplemented with the following:

Gravel Backfill for Pipe Zone Bedding	9-03.12(3)
Ductile Iron Storm Sewer Pipe	9-05.13 SP

#### **7-04.3 Construction Requirements**

##### **7-04.3(1) Cleaning and Testing**

Add the following new subsection:

##### **7-04.3(1)G Television Inspection**

Following the air testing, Contracting Agency reserves the right to inspect the pipe using a TV camera and measuring equipment. Contracting Agency will be responsible for this inspection. The costs incurred in making the initial inspection shall be borne by Contracting Agency. Contractor shall provide two weeks advance notice and accommodate and allow up to five (5) days for this inspection to be made.

Any departure from that normally achieved with good construction practices such as pipeline misalignment (vertical or horizontal) will be deemed a deficiency. Pipe shall be excavated, the joint repaired, and the bedding and backfill re-compacted and replaced, as necessary. The maximum allowable pipe deflection will be five (5.0) percent (in either horizontal or vertical). The pipe's internal diameter will be based on the inside dimensions and reasonable tolerances obtained from the

pipe manufacturer. Pipe that is misaligned or exceeds the allowable deflection shall be excavated and the bedding and backfill re-compacted and replaced as necessary. Contractor shall bear the cost of correcting such deficiencies as well as the costs of any TV inspections that are required to verify the deficiency has been corrected.

#### **7-04.5 Payment**

Section 7-04.5 is supplemented with the following:

“Ductile Iron Storm Sewer Pipe \_\_\_ In. Diam.”, per linear foot.

The twelfth paragraph in Section 7-04.5 is revised to read:

The unit Contract price per linear foot for storm sewer pipe of the kind and size specified shall be full pay for all Work to complete the installation, including but not limited to trench excavation, laying and jointing pipe and fittings, approved couplings and adaptors, import and placement of backfill within and above the pipe zone, compaction, pavement restoration, adjustment of inverts to manholes, and cleanup as shown in the Plans.

#### **7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS**

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##### **7-05.1 Description**

Section 7-05.1 is supplemented with the following:

This Work also consists of:

- Installing bolt down and locking type lids on catch basins, manholes, and inlets,
- Connecting catch basin to existing pipe.
- Installing birdcage grates and frames.

##### **7-05.2 Materials**

Section 7-05.2 is supplemented with the following:

Catch basins, manholes, and inlets shall have bolt down and locking type lids with the words “KITSAP COUNTY” cast into the top surface, as shown on the Plans. The existing lids removed by the Contractor shall remain the property of the Owner and be delivered upon installation of the new locking lid.

Birdcage Grate and Frame shall conform to the detail shown in the Plans.



### **7-05.3 Construction Requirements**

#### **7-05.3(1) Adjusting Manholes and Catch Basins to Grade**

Section 7-05.3(1) is deleted and replaced with the following:

Where shown in the Plans or where directed by the Engineer, the lids for existing manholes, catch basins, or inlets, shall be removed and replaced with a bolt down and locking type lids with the words "KITSAP COUNTY" cast into the top surface and adjusted to the grade as staked, or otherwise designated by the Engineer.

The materials and method of construction shall conform to the requirements of the Standard Plans, except as approved by the Engineer.

Add the following new subsection:

#### **7-05.3(5) Connections to Existing Catch Basins and Storm Lines**

The locations, type, and size of the existing catch basins and storm lines have been determined from available records, and are approximate; however, it is anticipated that connections to these existing facilities may be made, in general, as shown on the Plans.

It shall be the responsibility of the Contractor to determine the exact location and ascertain the type and size of the existing facilities prior to starting work on each connection, and to provide any alterations, as required at no additional cost to the Contracting Agency.

When existing pipe connections are removed or abandoned on an existing catch basin, the Contractor shall seal the existing opening with concrete and/or watertight grout. No payment will be made for sealing existing openings in existing catch basins. All work associated with sealing existing pipe openings shall be incidental to other bid items included in the Contract.

### **7-05.4 Measurement**

Section 7-05.4 is supplemented with the following:

Locking solid metal cover and frame shall be included in the unit price for the structure being installed or adjusted.

Birdcage grate and frame shall be included in the unit price for the structure being installed.

Connect catch basin to existing pipe shall be included in the unit price for the structure being installed.

No measurement will be made for structure excavation, foundation material, native material, backfill, or bedding material and shall be incidental to the structure that is being installed.

## **7-08 GENERAL PIPE INSTALLATION REQUIREMENTS**

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### **7-08.3 Construction Requirements**

#### **7-08.3(1) Excavation and Preparation of Trenches**

Section 7-08.3(1) is supplemented with the following:

##### **Pot-hole Existing Utility**

At least 24 hours prior to commencing installation of any pipe, the Contractor shall expose by pot-holing existing underground telephone cables, gas mains, sewer mains or services, water mains or services or any other underground utility shown in the Plans that crosses the route of any new pipe to be installed under this Contract. Excavation immediately adjacent to the existing utilities shall be by hand methods in compliance with Washington State requirements.

When directed by the Engineer, the Contractor shall expose by pot-holing crossings of new pipe and utilities not shown in the Plans.

#### **7-08.3(1) A Trenches**

The sixth paragraph in Section 7-08.3(1) is revised to read:

When, after excavating to the foundation level, the material remaining in the trench bottom is determined to be unsuitable by the Engineer, the excavation shall be continued to such additional depth and width as required by the Engineer. Unsuitable foundation materials shall be disposed of at an approved site. The trench foundation shall be backfilled to the bottom of the pipe zone with Special Borrow and compacted to form a uniformly dense, unyielding foundation.

### **7-08.4 Measurement**

Section 7-08.4 is supplemented with the following:

Pot-holing of existing utilities shown in the Plans crossing the route of new pipe shall be incidental to the item being installed. All costs for such work shall be included in the unit contract price shown on the proposal for the item to be installed and no further payment will be made.

Pot-holing of utilities not shown in the Plans as crossing the route of the new pipe will be measure by force account in accordance with Sections 1-09.6.

### **7-08.5 Payment**

The fifth and sixth paragraphs of Section 7-08.5 is deleted.

Section 7-08.5 is supplemented with the following:

“Force Account Pot-hole Utility Crossing”, per force account.

Payment will be made for the bid item “Force Account Pot-hole Utility Crossing”, per force account, as provided in Section 1-09.6 for exposing any utility crossing the new pipe or drainage structure that is not shown in the Plans. To provide a common proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the Contractor’s total bid.

No payment will be made for pot-holing of existing utilities shown in the Plans as crossing the route of the new pipe.

### **7-12 VALVES FOR WATER MAINS**

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#### **7-12.1 Description**

Section 7-12.1 is supplemented with the following:

The work shall include adjustment of water valve boxes to grade.

#### **7-12.3 Construction Requirements**

Section 7-12.4 is supplemented with the following:

Where shown in the Plan or where directed by the Engineer, the existing water valve box shall be adjusted to the grade as stacked or otherwise designated by the Engineer.

The existing cast iron wring and cover on the valve box shall first be removed and thoroughly cleaned for reinstalling at the new elevation. From that point, the existing valve box shall be raised or lowered to the required elevation. The material and method of construction shall conform to the requirements specified in the section, and the finished valve box shall conform to the requirements of the County Standards except as approved by the Engineer.

#### **7-12.4 Measurement**

Section 7-12.4 is supplemented with the following:

Adjust valve box will be measured per each.

#### **7-12.5 Payment**

Section 7-12.5 is supplemented with the following:

“Adjust Valve Box”, per each.

**END OF DIVISION 7**

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## **DIVISION 8 MISCELLANEOUS CONSTRUCTION**

### **8-01 EROSION CONTROL AND WATER POLLUTION CONTROL**

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#### **8-01.1 Description**

This work shall include the preparation and implementation of a Temporary Erosion and Sedimentation Control (TESC) Plan by the Contractor for this contract.

The Contractor shall install and maintain all temporary and permanent erosion control measures and Best Management Practices (BMPs) in accordance with the Bid Documents, Plans, Standard Specifications, Permit Conditions, and as directed by the County.

#### **8-01.3 Construction Requirements**

##### **8-01.3(1) General**

##### **8-01.3(1)A Submittals**

##### **8-01.3(1)A1 Temporary Erosion and Control Plan**

Section 8-01.3(1)A1 is revised to read:

The Contractor shall prepare a temporary erosion and sedimentation control (TESC) Plan for the contract and shall submit this TESC Plan to the Engineer 5 days prior to the preconstruction conference.

A TESC Plan consists of a narrative section and plan sheets that meets Ecology's Stormwater Pollution Prevention Plan (SWPPP) requirement in the CSWGP. When the Contracting Agency has developed a TESC Plan for a Contract the narrative is included in the appendix to the Special Provisions and the TESC plan sheets are included in the Contract Plans. The Contracting Agency TESC plan will not include off-site areas used to directly support construction activity.

A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared by the Contractor and submitted for approval by the Engineer. The plan shall consist of the Contractor's complete strategy to meet the requirements of the CSWGP. The SWPPP shall include and modify as necessary the TESC Plan drawings if provided as part of the Contract Plans. The Contractor shall prepare, review and modify the SWPPP as necessary to be consistent with the actual work schedule, sequencing, and construction methods that will be used on the project.

The SWPPP shall document all the erosion and sediment control Best Management Practices (BMPs) proposed, whether permanent or temporary. The plan shall document installation procedures, materials, scheduling, and maintenance procedures for each erosion and sediment control BMP. The Contractor shall submit the SWPPP for the Engineer's approval before any work begins. The Contractor shall allow at least five working days for the Engineer's review of the initial SWPPP or any revisions to the modified SWPPP. Failure to approve all or part of any such plan shall not make the Contracting Agency liable to the Contractor for any work delays. The Contractor may not begin work without an approved Contractor's SWPPP.

Contractor TESC Plans shall include all high visibility fence delineation shown on the Contracting Agency Contract Plans. All TESC Plans shall meet the requirements of the current edition of the WSDOT Temporary Erosion and Sediment Control Manual M 3109 and be adapted as needed throughout construction based on site inspections and discharge samples to maintain compliance with the CSWGP. The Contractor shall develop a schedule for implementation of the TESC work and incorporate it into the Contractor's progress schedule.

The Contractor shall submit their TESC Plan and implementation schedule as Type 2 Working Drawings. At the request of the Engineer, updated TESC Plans shall be submitted as Type 1 Working Drawings.

#### **8-01.5(1) Lump Sum Bid for Project (No Unit Items)**

The second and third paragraphs in Section 8-01.5(1) are deleted and replaced with the following:

"Erosion / Water Pollution Control", per lump sum.

The lump sum Contract price for Erosion/Water Pollution Control shall be full pay for all labor, tools, equipment, and materials for the installation, maintenance, and removal of erosion and water pollution control measures including the preparation and implementation of the TESC Plan.

#### **8-02 ROADSIDE RESTORATION**

(\*\*\*\*\*)

##### **8-02.3 Construction Requirements**

##### **8-02.3(9) Seeding, Fertilizing, and Mulching**

##### **8-02.3(9)B Seeding and Fertilizing**

Section 8-2.3(9)B is supplemented with the following:



Seed: Grass seed, of the following composition, proportion, and quality shall be applied at the rate of 80 pounds per acre on all areas requiring roadside seeding within the project:

Kind and Variety of Seed in Mixture	% By Weight	Minimum % Pure Seed	Minimum % Germination
Chewing Fescue	40	39.2	90
Colonial Bentgrass (Var.Astoria)	10	9.8	85
Perennial Rye	40	39.2	90
White Dutch Clover	10	9.8	90
Weed Seed		0.5 % maximum	
Inert and Other Crop		1.5 % maximum	
<b>TOTAL</b>		<b>100.00 %</b>	

### **8-02.3(11) Mulch**

Section 8-02.3(11) is supplemented with the following:

Mulch for Erosion Control Seeding:

Mulch shall be Short Term Mulch applied at a rate of 2500 pounds per acre.

Add the following new Section

### **8-02.3(17) Restoration Planting**

Restoration Planting shall follow Plant Selection specifications in this section 8-02.

### **8-02.4 Measurement**

Section 8-02.4 is supplemented with the following:

Seeding, Fertilizing and mulching will be measured by the square yard by ground slope measurement or through the use of design data.

### **8-02.5 Payment**

Section 8-02.5 is supplemented with the following:

“Seeding, Fertilizing and Mulching”, per square yard.

“Restoration Planting”, per lump sum.

The lump sum contract price for “Restoration Planting” shall be full pay to perform the work within the planting area for weed control, planting area preparation, planting, staking, clean up, and water necessary to complete the planting operations as specified until the end of the first year of plant establishment.

#### **8-04 CURBS, GUTTERS, AND SPILLWAYS**

(\*\*\*\*\*)

##### **8-04.4 Measurement**

Section 8-04.4 is supplemented with the following:

The Asphalt Wedge Curb will be measured by the linear foot along the line and slope of the completed asphalt wedge edge.

##### **8-04.5 Payment**

Section 8-04.5 is supplemented with the following:

“Asphalt Wedge Curb”, per liner foot.

The unit Contract price per linear foot for “Asphalt Wedge Edge” shall be full payment for all costs for the specified Work.

#### **END OF DIVISION 8**

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## DIVISION 9 MATERIALS

### 9-03 AGGREGATES

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#### 9-03.8 Aggregates for Hot Mix Asphalt

##### 9-03.8(2) HMA Test Requirements

Section 9-03.8(2) is supplemented with the following:

##### **ESAL's**

The number of ESAL's for the design and acceptance of the HMA shall be in the range of more than 300,000 to less than 3 million.

##### 9-03.8(7) HMA Tolerances and Adjustments

Section 9-03.8(7) is supplemented with the following:

Delete item 1 and replace with:

1. Job Mix Formula Tolerances. After the JMF is determined as required in 5-04.3(7)A, the constituents of the mixture at the time of acceptance shall conform to the following tolerances:

	Nonstatistical Evaluation	Commercial Evaluation
	Aggregate, percent passing	
1", ¾", ½" and ⅜" sieves	±6.0%	±8.0%
U.S. No. 4 sieve	±6.0%	±8.0%
U.S. No. 8 sieve	±6.0%	±8.0%
U.S. No. 200 sieve	±2.0%	±3.0%
Asphalt Binder	±0.5%	±0.7%
Air Voids	2.5% Minimum and 5.5% Maximum	

#### 9-03.14 Borrow

Add the following new subsection:

##### 9-03.14(5) Special Borrow

Material for special borrow shall consist of granular material, either naturally occurring or processed, and shall meet the following requirements for grading and quality:

<b>Sieve Size</b>	<b>Percent Passing</b>
3 in	100
1.5 in	70-100
3/4 in.	50-85
No. 4	30-60
No. 40	8-24
No. 200	3-10
Sand Equivalent	35 Min.

### **9-03.21 Recycled Materials**

Section 9-03.21 is supplemented with the following:

The Contracting Agency encourages bidders to use recycled materials to the maximum extent feasible.

## **9-05 DRAINAGE STRUCTURES AND CULVERTS**

(\*\*\*\*\*)

### **9-05.13 Ductile Iron Sewer Pipe**

Section 9-05.13 is revised to read:

Ductile iron pipe shall conform to ANSI A 21.51 or AWWA C151. The ductile iron pipe shall be Special Thickness Class 50, Minimum Pressure Class 350, or the Class indicated on the Plans or in the Special Provisions.

Nonrestrained joints shall be rubber gasket type, push on type, or mechanical type, and shall meet the requirements of AWWA C111.

### **9-05.15 Metal Casings**

#### **9-05.15(1) Manhole Ring and Cover**

Section 9-05.15(1) is revised to read:

All covers shall be interchangeable within the dimensions shown on the Drawings. All mating surfaces shall be machine finished to ensure a non-rocking fit. Sanitary and storm sewer manholes frames and covers shall have the words "KITSAP SEWER" or "KITSAP STORM" cast into the top surface of the cover and shall be the bolt down and locking type and size as shown on the Plans.

Covers shall contain integral heavy duty cam locks with ¼" round neoprene gaskets. Cam lock wrench shall only be removable when the cover is in the locked position. Subject to compliance with the contract documents the following manufacturers are acceptable:

1. EJ Group, Inc.
2. Neenah Foundry.
3. Deeter Foundry.
4. Olympic Foundry.
5. Approved Equal, shall be determined based on requirements within this section, materials specifications, and conformity with the dimensions and custom logo design provided on the Kitsap County Standard Details.

## **9-09 TIMBER AND LUMBER**

(\*\*\*\*\*)

### **9-09.2 Grade Requirements**

#### **9-09.2(1) Structures**

Paragraph 2 of section 0-09.2(1) is supplemented with:

Spacers shall be placed between consecutive rows of lagging to ensure adequate drainage and prevention of hydrostatic pressures behind wall. A minimum of three spacers shall be placed between each row of lagging boards. Spacers shall consist of durable (non-degradable material and create a minimum ¼-inch gap to a maximum ½-inch gap between the lagging boards. Contractor to provide spacers with minimum dimensions of 6-inches wide by 6-inches long by 3/8-inches thick or equivalent as approved by engineer.

## **9-14 EROSION CONTROL AND ROADSIDE PLANTING**

(\*\*\*\*\*)

### **9-14.2 Topsoil**

#### **9-14.2(1) Topsoil Type A**

Section 9-14.2(1) is supplemented with the following:

*(September 12, 2019 WSDOT NWR GSP)*

Topsoil Type A shall consist of a uniform blend composed by volume of 60 percent to 70 percent Sandy Loam and 30 percent to 40 percent Fine Compost.

#### **Sandy Loam**

Sandy Loam shall be as defined by the US Department of Agriculture Natural Resource Conservation Services Soil Texture Triangle. Testing shall be performed by a Washington State Department of Ecology accredited testing laboratory approved through the North American Proficiency Testing Performance Assessment Program (NAPT-PAP) on a sample size of no less than 2 pounds. Testing shall not occur more than 90 days prior to installation and shall be submitted to the Engineer for approval a minimum of 14 calendar days prior to use or installation. The Sandy Loam analysis shall meet the following requirements:

Tested Item	Method*	Units	Specification Range
pH 1:1	S-2.20	S.U.	5.5 – 7.5
E.C. 1:1	S-2.20	mmhos/cm	≤ 2
Nitrate Nitrogen	S-3.10	mg/Kg	***
Ammonium Nitrogen	S-3.50	mg/Kg	***
Organic Matter	S-9.10	%	3 – 10
Phosphorus (P)	S-4.20 (Bray)	mg/Kg	***
Calcium (Ca)	S-5.10 (NH4OAC)	meq/100g	***
Magnesium (Mg)	S-5.10 (NH4OAC) S-6.11 (DTPA/Sorbitol)	meq/100g Mg/Kg	***
Sodium (Na)			***
Potassium (K)			***
Zinc (Zn)			***
Manganese (Mn)	S-6.11 (DTPA/Sorbitol) EPA 908/S-10.10	Mg/Kg meq/100g	***
Copper (Cu)			***
Iron (Fe)			***
Sulfur (SO4-S)			***
Boron (B)			***
Molybdenum (Mo)			***
Cation Exchange (CEC)			5 Min.
Total Nitrogen	AOAC 990.3	%	***
Total Carbon	AOAC 972.3	%	***
C:N Ratio			20:1 or less
Exchangeable Sodium	ESP	%	10 Max.



Tested Item	Method*	Units	Specification Range
Percentage (ESP)			
Particle Size Analysis (Sand, Clay, Silt)	S-14.10 (Hydrometer)	%	Sandy Loam
Heavy Metals Testing	EPA 6010D	mg/Kg	From WAC 173-350-220 Table 220-B unless otherwise noted
Arsenic			≤ 20
Cadmium			≤ 10
Chromium			≤ 42**
Copper			≤ 100**
Lead			≤ 150
Molybdenum			≤ 9
Nickel			≤ 100**
Selenium			≤ 18
Zinc			≤ 270**
Mercury	EPA 7473		≤ 8
*Methods are from "Soil, Plant, and Water Reference Methods For the Western Region" 2005, 3 <sup>rd</sup> Ed., Dr. R. Gavlak, Dr. D. Horneck, Dr. R.O. Miller.			**From WAC 173-340-900 Table 749-2 for Unrestricted Land Uses ***Testing for soil-testing laboratory recommendations for soil treatments and amendments

The soil-testing laboratory shall state recommendations for soil treatments and soil amendments to be incorporated based on the results of the tests. Recommendations shall be in pounds per acre, or volume per cu. yd. for nitrogen, phosphorus, potash nutrients, and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.

### Compost

Compost shall conform to the requirements of Section 9-14.5(8).

### Mixing Requirements

Topsoil Type A shall be thoroughly mixed by the supplier prior to delivery to the site. The Contractor shall submit certification from the supplier that the Topsoil Type A has been mixed according to the above percentages at the point of delivery.

Acceptance of Topsoil Type A for use on a project shall be on the basis of visual verification by the Engineer that the delivered material is representative of the laboratory analysis documentation and certification.

**END OF DIVISION 9**

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**(November 4, 2024)**  
**Standard Plans**

The Washington State Department of Transportation Standard Plans M21-01, published September 2024, is made a part of this Contract with the following revisions:

A-10.30

RISER RING detail (Including SECTION view and RISER RING DIMENSIONS table):  
The RISER RING detail is deleted from the plan.

INSTALLATION detail, SECTION A: The "1/4" callout is revised to read "+/- 1/4" (SEE CONTRACT ~ Note: The + 1/4" installation is shown in the Section A view)"

A-40.20

Sheet 1, NOTES 1, 2, 3, and 4 are replaced with the following:

1. 1. Use the ½ inch joint details for bridges with expansion length less than 100 feet and for bridges with L type abutments. Use the 1 inch joint details for other applications.
- 2.
3. 2. Use detail 5, 6, 7 on steel trusses and timber bridges with concrete bridge deck panels.
- 4.
5. 3. For details 1, 2, 3, and 4, the item "HMA Joint Seal at Bridge End" shall be used for payment. For details 5 and 6, the item "HMA Joint Seal at Bridge Deck Panel Joint" shall be used for payment. For detail 7, the item "Clean and Seal Bridge Deck Panel Joint" shall be used for payment.

Sheet 2, Detail 8 reference to "6-09.3(6)" is revised to read "6-21.3(7)".

A-50.40

Sheet 1, Plan View: The callout "BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21 OR TYPE 24 (SEE STANDARD PLAN C-25.20 OR C-25.30)" is revised to read "BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21, 24, OR 25 (SEE STANDARD PLAN C-25.20, C-25.30, OR C-25.32)"

A-60.40

Note 2 reference to "6-09.3(6)" is revised to read "6-21.3(7)".

B-90.40

Valve Detail – DELETED

C-23.70

Sheet 2, ANCHOR BRACKET ASSEMBLY DETAIL, dimension, "R. 5/16" is revised to read; R. 15/16"

ANCHOR PLATE DETAIL, weld callout (fillet), 1/4" is revised to read; 3/16"

#### C-60.20

Sheet 1, Plan view, callout – “1/2” (IN) DIAMETER X 6 1/2” (IN) LONG ANCHOR BOLT ~ PER STD. SPEC. SECT. 9-06.5(4) (TYPICAL) (SEE NOTE 7)” is revised to read: “5/8” DIAMETER x 6 1/2” (IN) LONG ANCHOR BOLT ~ PER STD. SPEC. SECT. 9-06.5(4) (TYPICAL) (SEE NOTE 7)”

#### C-81.15

Sheet 1, General Notes, Add Note 7, to read;”7. The concrete class for the moment slab shall be class 4000 typically and class 4000A when the top of the slab is used as the roadway, or sidewalk, surface. The concrete class for the barrier is defined in Standard Specification Section 6-10.3.”

#### C-85.11

On Section B, the callout “3” EXPANDED POLYSTYRENE AROUND COLUMN (TYP.)” is revised to read “3” EXPANDED POLYSTYRENE OR POLYETHYLENE FOAM AROUND COLUMN (TYP.)”

#### D-3.09

Sheet 1, Geosynthetic Wall with 2 FT Traffic Surcharge detail, callout – “BARRIER ON WALL ~ SEE Standard Plan D-3.15 or D-3.16” is revised to read: “BARRIER ON WALL ~ SEE Standard Plan C-81.10 and/or C-81.15”

#### D-3.10

Sheet 1, Typical Section, callout – “FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.15” is revised to read; “FOR WALLS WITH SINGLE SLOPE TRAFFIC BARRIER, SEE CONTRACT PLANS”

Sheet 1, Typical Section, callout – “FOR WALLS WITH F-SHAPE TRAFFIC BARRIER. USE THE DETAILS ABOVE THE MATCH LINE ON STANDARD PLAN D-3.16” is revised to read; “FOR WALLS WITH F-SHAPE TRAFFIC BARRIER, SEE CONTRACT PLANS”

#### D-3.11

Sheet 1, Typical Section, callout – “”B” BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16” is revised to read; ”B” BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

Sheet 1, Typical Section, callout – “TYPICAL BARRIER ON BRIDGE APPROACH SLAB (SEE BRIDGE PLANS) OR PERMANENT GEOSYNTHETIC WALL BARRIER ~ SEE STANDARD PLANS D-3.15 OR D-3.16” is revised to read; “TYPICAL BARRIER ON BRIDGE APPROACH SLAB OR MOMENT SLAB (SEE CONTRACT PLANS)

#### D-10.10

Note 7, "If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30" is revised to read "Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 1 and 1SW".

#### D-10.15

Note 7, "If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30" is revised to read "Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 2 and 2SW".

#### D-10.30

Wall Type 5 may be used in all cases.

#### D-10.35

Wall Type 6 may be used in all cases.

#### D-10.40

Note 5, "If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30" is revised to read "Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 7".

#### D-10.45

Note 5, "If Traffic Barriers are required, See Standard Plans D-15.10, D-15.20 and D-15.30" is revised to read "Traffic Barriers shall not be structurally connected to the Reinforced Concrete Retaining Wall Type 8".

#### F-10.18

General Note 1; "Construct curb joints at concrete pavement transverse joint locations. If all adjacent pavement is HMA, see Standard Plan F-30.10 for Curb Expansion and Contraction Joint Spacing." Is revised to read – "See Standard Plan F-30.10 and Standard Specification Section 8-04.3 for Curb Expansion and Contraction Joint details and spacing."

#### F-30.10

All five instances of the "2.0% MAX." are replaced with "2.1% MAX."

#### F-40.12

The one instance of "2.0% MAX." is replaced with "2.1% MAX."

Note 7 is replaced with the following:

7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement. When a ramp is constructed on a radius, the Curb Ramp length is measured on the inside radius along the back of the walkway.

Section B is amended as follows:

Delete: "15' – 0" MAX. (TYP.)"

Section C is amended as follows:  
Delete: "15' – 0" MAX. (TYP.)"

#### F-40.14

The one instance of "2.0% MAX." is replaced with "2.1% MAX."

Note 7 is replaced with the following:

7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement. When a ramp is constructed on a radius, the Curb Ramp length is measured on the inside radius along the back of the walkway.

Section A is amended as follows:

Delete: "15' – 0" MAX. (TYP.)"

Section C is amended as follows:

Delete: "15' – 0" MAX. (TYP.)"

#### F-40.15

The one instance of "2.0% MAX." is replaced with "2.1% MAX."

Note 7 is replaced with the following:

7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement.

Section A is amended as follows:

Delete: "15' – 0" MAX. (TYP.)"

#### F-40.16

The one instance of "2.0% MAX." is replaced with "2.1% MAX."

Note 8 is replaced with the following:

7. The running slope of curb ramps shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the landing. Do not include the abutting landing in the Curb Ramp length measurement.

Section A is amended as follows:

Delete: "15' – 0" MAX. (TYP.)"

Section B is amended as follows:

Delete: "15' – 0" MAX. (TYP.)"

#### F-80.10

The one instance of "2.0% MAX." is replaced with "2.1% MAX."

Note 6 is replaced with the following:

The running slope of the Pedestrian Ramp shall not exceed 8.3% maximum except as noted herein. If the 8.3% running slope creates a ramp that exceeds 15ft, see contract plans for details. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk.



Section A is amended as follows:

Delete: "15" Max."

J-10.10

Sheet 4 of 6, "Foundation Size Reference Table", PAD WIDTH column, Type 33xD=6' – 3" is revised to read: 7' – 3". Type 342LX / NEMA P44=5' – 10" is revised to read: 6' – 10"

Sheet 5 of 6, Plan View, "FOR EXAMPLE PAD SHOWN HERE:", "first bullet" item, "- SPACE BETWEEN TYPE B MOD. CABINET AND 33x CABINET IS 6" (IN)" IS REVISED TO READ: "SPACE BETWEEN TYPE B MOD. CABINET (BACK OF ALL CHANNEL STEEL) AND 33x CABINET IS 6" (IN) (CHANNEL STEEL ADDS ABOUT 5" (IN))"

J-10.16

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.17

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-10.18

Key Note 1, Standard Plan J-10.30 revised to Standard Plan J-10.14

J-20.10

DELETED

J-20.11

DELETED

J-20.26

Add Note 1, "1. One accessible pedestrian pushbutton station per pedestrian pushbutton post."

Add General Note 2, to read: "Signs shown are for locations with pedestrian signal displays (Accessible Pedestrian Signals/APS). Accessible information device (AID) pushbuttons signs not shown."

Revise View Titles (Both Sheets) to read: "ACCESSIBLE PEDESTRIAN PUSHBUTTON ASSEMBLY"

J-20.16

View A, callout, was – LOCK NIPPLE, is revised to read; CHASE NIPPLE

J-21.10

Sheet 1, Anchor Bolt Template, callout; "9" (IN) BOLT CIRCLE" is revised to read: "9" (IN) DIA.BOLT CIRCLE"

Base Plate Detail, callout; "3/4" (IN) STEEL PLATE WITH HOLE = POLE BASE + 1/6" (IN)" IS REVISED TO READ; "3/4" (IN) STEEL PLATE WITH HOLE = POLE BASE + 1/16" (IN)"

Flat Foundation Detail – Elevation, callout; “ANCHOR BOLTS ~  $\frac{3}{4}$ ” (IN) x 30” (IN) FULL THREAD ~ THREE REQ'D. PER ASSEMBLY” is revised to read; “ANCHOR BOLTS ~  $\frac{3}{4}$ ” (IN) x 30” (IN) FULL THREAD ~ FOUR REQ'D. PER ASSEMBLY”  
Flat Foundation Detail – Elevation, dimension; 4' – 0” is revised to read; “4' – 0” ROUND OR 3' – 0” SQUARE”

J-21.15

Partial View, callout, was – LOCK NIPPLE ~ 1  $\frac{1}{2}$ ” DIAM., is revised to read; CHASE NIPPLE ~ 1  $\frac{1}{2}$ ” (IN) DIAM.

J-28.30

General Note 13 – “See Standard Plans C-8b and C-85.14 for steel light standards on traffic barrier” is revised to read; “See Standard Plan C-85.15 for steel light standards on traffic barrier.”

J-40.10

Sheet 2 of 2, Detail F, callout, “12 – 13 x 1  $\frac{1}{2}$ ” S.S. PENTA HEAD BOLT AND 12” S. S. FLAT WASHER” is revised to read; “12 – 13 x 1  $\frac{1}{2}$ ” S.S. PENTA HEAD BOLT AND 1/2” (IN) S. S. FLAT WASHER”

J-40.36

Note 1, second sentence; “Finish shall be # 2B for backbox and # 4 for the cover.” Is revised to read; “Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-40.37

Note 1, second sentence; “Finish shall be # 2B for backbox and # 4 for the cover.” Is revised to read; “Finish shall be # 2B for barrier box and HRAP (Hot Rolled Annealed and Pickled) for the cover.

J-75.20

Key Notes, note 16, second bullet point, was: “1/2” (IN) x 0.45” (IN) Stainless Steel Bands”, add the following to the end of the note: “Alternate: Stainless steel cable with stainless steel ends, nuts, bolts, and washers may be used in place of stainless steel bands and associated hardware.”

J-75.55

Notes, Note A1, Revise reference, was – G-90.29, should be – G-90.20.

L-5.10

Add new general Note 9 on sheet 1 – “9. The top of wall in Section A on Sheet 1 shall be located as follows: 1) flush with the finished grade when placed within the deflection distance of the long span guardrail system (Std. Plan C-20.40), 2) Two inches maximum above finished grade when placed behind a box culvert guardrail steel post system (Std. Plan C-20.41 or C-20.43), 3) Six inches minimum for all other applications. The bottom rail shall be located at mid height between the top rail and the top of structure.”

### M-20.30

Wide Dotted Lane Line Detail, reference below title, (SEE NOTE 6) is revised to read:  
(SEE NOTE 5)

### M-40.10

Guide Post Type ~ Reflective Sheeting Applications Table, remove reference - "(SEE NOTE 5)"

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00..... 8/7/07	A-30.35-00 ... 10/12/07	A-50.10-02 ..... 7/18/24
A-10.20-00..... 10/5/07	A-40.00-01 ..... 7/6/22	A-50.40-01 ..... 8/17/21
A-10.30-00..... 10/5/07	A-40.10-04 ..... 7/31/19	A-60.10-03 ... 12/23/14
A-20.10-00..... 8/31/07	A-40.15-00 ..... 8/11/09	A-60.20-03 ... 12/23/14
A-30.10-00..... 11/8/07	A-40.20-04 ..... 1/18/17	A-60.30-01 ..... 6/28/18
A-30.30-01..... 6/16/11	A-40.50-03 .... 9/12/23	A-60.40-00 ..... 8/31/07

B-5.20-03..... 9/9/20	B-30.50-03 ..... 2/27/18	B-75.20-03..... 8/17/21
B-5.40-02..... 1/26/17	B-30.60-00 ..... 9/9/20	B-75.50-02..... 3/15/22
B-5.60-02..... 1/26/17	B-30.40-03 ..... 2/27/18	B-70.60-01 ..... 1/26/17
B-10.20-03..... 8/23/23	B-30.70-04 ..... 2/27/18	B-75.60-00 ..... 6/8/06
B-10.40-02..... 8/17/21	B-30.80-01 ..... 2/27/18	B-80.20-00 ..... 6/8/06
B-10.70-03..... 8/23/23	B-30.90-02 ..... 1/26/17	B-80.40-00 ..... 6/1/06
B-15.20-01..... 2/7/12	B-35.20-00 ..... 6/8/06	B-85.10-01 ..... 6/10/08
B-15.40-01..... 2/7/12	B-35.40-01 ..... 8/23/23	B-85.20-00 ..... 6/1/06
B-15.60-02..... 1/26/17	B-40.20-00 ..... 6/1/06	B-85.30-00 ..... 6/1/06
B-20.20-02..... 3/16/12	B-40.40-02 ..... 1/26/17	B-85.40-00 ..... 6/8/06
B-20.40-04..... 2/27/18	B-45.20-01 ..... 7/11/17	B-85.50-01 ..... 6/10/08
B-20.60-03..... 3/15/12	B-45.40-01 ..... 7/21/17	B-90.10-00 ..... 6/8/06
B-25.20-02..... 2/27/18	B-50.20-00 ..... 6/1/06	B-90.20-00 ..... 6/8/06
B-25.60-03..... 8/23/23	B-55.20-03 ..... 8/17/21	B-90.30-00 ..... 6/8/06
B-30.05-00..... 9/9/20	B-60.20-02 ..... 9/9/20	B-90.40-01 ..... 1/26/17
B-30.10-03..... 2/27/18	B-60.40-01 ..... 2/27/18	B-90.50-00 ..... 6/8/06
B-30.15-00..... 2/27/18	B-65.20-01 ..... 4/26/12	B-95.20-02 ..... 8/17/21
B-30.20-04..... 2/27/18	B-65.40-00 ..... 6/1/06	B-95.40-01 ..... 6/28/18
B-30.30-03..... 2/27/18	B-70.20-01 ..... 3/15/22	

C-1 ..... 9/8/22	C-23.70-01 ... 10/16/23	C-70.10-04... 10/16/23
C-1b ..... 10/12/23	C-24.10-05 ..... 7/21/24	C-70.15-01..... 7/21/24
C-1d ..... 10/31/03	C-24.15-00 ..... 3/15/22	C-75.10-02..... 9/16/20
C-6a ..... 9/8/22	C-25.20-07 ..... 8/20/21	C-75.20-03..... 8/20/21
C-7 ..... 9/8/22	C-25.22-06 ..... 8/20/21	C-75.30-03..... 8/20/21
C-7a ..... 9/8/22	C-25.26-05 ..... 8/20/21	C-80.10-03... 10/16/23
C-20.10-09... 10/12/23	C-25.30-01 ..... 8/20/21	C-80.20-01..... 6/11/14
C-20.14-05..... 9/8/22	C-25.32-00 ..... 7/29/24	C-80.30-02..... 8/20/21
C-20.15-03... 10/12/23	C-25.80-05 ..... 8/12/19	C-80.40-01..... 6/11/14

C-20.18-04..... 9/8/22	C-60.10-04 ..... 7/21/24	C-85.10-00..... 4/8/12
C-20.40-10... 10/12/23	C-60.15-01 ..... 7/21/24	C-85.11-01..... 9/16/20
C-20.41-05..... 7/18/24	C-60.20-01 ..... 9/8/22	C-85.15-03... 10/17/23
C-20.43-01..... 7/18/24	C-60.30-02 ..... 7/21/24	C-85-18-03 ..... 9/8/22
C-20.44-00..... 8/13/24	C-60.40-01 ..... 7/21/24	C-81.10-00..... 9/12/23
C-20.45-03..... 9/8/22	C-60.45-01 ..... 7/21/24	C-81.15-00..... 9/12/23
C-20.55-00..... 7/30/24	C-60.50-01 ..... 7/21/24	
C-22.16-08... 10/17/23	C-60.60-01 ..... 7/21/24	
C-22.40-11..... 7/21/24	C-60.70-01 ..... 9/8/22	
C-22.45-07..... 7/21/24	C-60.80-02 ..... 7/21/24	
D-2.36-03 ..... 6/11/14	D-3.11-03..... 6/11/14	D-10.25-01..... 8/7/19
D-2.46-02 ..... 8/13/21	D-4 ..... 12/11/98	D-10.30-00..... 7/8/08
D-2.84-00 ... 11/10/05	D-6 ..... 6/19/98	D-10.35-00..... 7/8/08
D-2.92-01 ..... 4/26/22	D-10.10-01 ..... 12/2/08	D-10.40-01..... 12/2/08
D-3.09-00 ..... 5/17/12	D-10.15-01 ..... 12/2/08	D-10.45-01..... 12/2/08
D-3.10-01 ..... 5/29/13	D-10.20-01 ..... 8/7/19	D-20.10-00..... 10/9/23
E-1 ..... 2/21/07	E-4..... 8/27/03	E-20.10-00..... 9/12/23
E-2 ..... 5/29/98	E-4a..... 8/27/03	E-20.20-00..... 10/4/23
F-10.12-04 ..... 9/24/20	F-10.62-02 ..... 4/22/14	F-40.15-04 ..... 9/25/20
F-10.16-00... 12/20/06	F-10.64-03 ..... 4/22/14	F-40.16-03 ..... 6/29/16
F-10.18-04..... 6/28/24	F-30.10-04 ..... 9/25/20	F-45.10-05..... 6/4/24
F-10.40-04..... 9/24/20	F-40.12-03 ..... 6/29/16	F-80.10-04 ..... 7/15/16
F-10.42-00..... 1/23/07	F-40.14-03 ..... 6/29/16	
G-10.10-00 .... 9/20/07	G-24.50-05..... 8/7/19	G-90.10-03 .... 7/11/17
G-20.10-03 .... 8/20/21	G-24.60-05..... 6/28/18	G-90.20-05 .... 7/11/17
G-22.10-04 .... 6/28/18	G-25.10-05..... 9/16/20	G-90.30-04 .... 7/11/17
G-24.10-00 .... 11/8/07	G-26.10-00..... 7/31/19	G-95.10-02 .... 6/28/18
G-24.20-01 ..... 2/7/12	G-30.10-04..... 6/23/15	G-95.20-03 .... 6/28/18
G-24.30-02 .... 6/28/18	G-50.10-03..... 6/28/18	G-95.30-03 .... 6/28/18
G-24.40-07 .... 6/28/18		
H-10.10-01..... 6/2/24	H-30.10-00 ... 10/12/07	H-70.10-02..... 8/17/21
H-10.11-00..... 6/2/24	H-32.10-00 ..... 9/20/07	H-70.20-02..... 8/17/21
H-10.15-01..... 6/2/24	H-60.10-01 ..... 7/3/08	
H-10.16-00..... 6/2/24	H-60.20-01 ..... 7/3/08	
I-10.10-01 ..... 8/11/09	I-30.20-00 ..... 9/20/07	I-40.20-00 ..... 9/20/07
I-30.10-02 ..... 3/22/13	I-30.30-02 ..... 6/12/19	I-50.20-02 ..... 7/6/22
I-30.15-02 ..... 3/22/13	I-30.40-02 ..... 6/12/19	I-60.10-01 ..... 6/10/13
I-30.16-01 ..... 7/11/19	I-30.60-02 ..... 6/12/19	I-60.20-01 ..... 6/10/13
I-30.17-01 ..... 6/12/19	I-40.10-00 ..... 9/20/07	I-80.10-02 ..... 7/15/16
J-05.50-00 ..... 8/30/22	J-26.10-03..... 7/21/16	J-50.05-00 ..... 7/21/17
J-10 ..... 7/18/97	J-26.15-01..... 5/17/12	J-50.10-01 .... 7/31/19
J-10.10-04 ..... 9/16/20	J-26.20-01..... 6/28/18	J-50.11-02 .... 7/31/19
J-10.12-00 ..... 9/16/20	J-27.10-01..... 7/21/16	J-50.12-02 ..... 8/7/19
J-10.14-00 ..... 9/16/20	J-27.15-00..... 3/15/12	J-50.13-01 ..... 8/30/22

J-10.15-01 .....	6/11/14	J-28.01-00.....	8/30/22	J-50.15-01 .....	7/21/17
J-10.16-02 .....	8/18/21	J-28.10-02.....	8/7/19	J-50.16-01 .....	3/22/13
J-10.17-02 .....	8/18/21	J-28.22-00.....	8/07/07	J-50.18-00 .....	8/7/19
J-10.18-02 .....	8/18/21	J-28.24-02.....	9/16/20	J-50.19-00 .....	8/7/19
J-10.20-04 .....	8/18/21	J-28.26-01....	12/02/08	J-50.20-00 .....	6/3/11
J-10.21-02 .....	8/18/21	J-28.30-04.....	6/18/24	J-50.25-00 .....	6/3/11
J-10.22-03 .....	10/4/23	J-28.40-02.....	6/11/14	J-50.30-00 .....	6/3/11
J-10.25-01 .....	6/21/24	J-28.42-01.....	6/11/14	J-60.05-01 .....	7/21/16
J-10.26-00 ....	8/30/22	J-28.43-01.....	6/28/18	J-60.11-00 .....	5/20/13
J-12.15-00 .....	6/28/18	J-28.45-03.....	7/21/16	J-60.12-00 .....	5/20/13
J-12.16-00 .....	6/28/18	J-28.50-03.....	7/21/16	J-60.13-00 .....	6/16/10
J-15.10-01 .....	6/11/14	J-28.60-03.....	8/27/21	J-60.14-01 .....	7/31/19
J-15.15-02 .....	7/10/15	J-28.70-04.....	8/30/22	J-75.10-02 .....	7/10/15
J-20.01-01 ....	6/21/24	J-29.10-02.....	8/26/22	J-75.20-01 .....	7/10/15
J-20.05-00 .....	6/21/24	J-29.15-01.....	7/21/16	J-75.30-02 .....	7/10/15
J-20.10-05 .....	10/4/23	J-29.16-02.....	7/21/16	J-75.50-00 .....	8/30/22
J-20.11-03 .....	7/31/19	J-30.10-01.....	8/26/22	J-75.55-00 .....	8/30/22
J-20.15-04 .....	6/21/24	J-40.01-00.....	8/30/22	J-80.05-00 .....	8/30/22
J-20.16-02 .....	6/30/14	J-40.05-00.....	7/21/16	J-80.10-01 .....	8/18/21
J-20.20-02 .....	5/20/13	J-40.10-04.....	4/28/16	J-80.12-00 .....	8/18/21
J-20.26-01 .....	7/12/12	J-40.20-03.....	4/28/16	J-80.15-00 .....	6/28/18
J-21.10-05 .....	6/21/24	J-40.30-04.....	4/28/16	J-81.10-02 .....	8/18/21
J-21.15-01 .....	6/10/13	J-40.35-01.....	5/29/13	J-81.12-00 .....	9/3/21
J-21.16-02 .....	6/21/24	J-40.36-02.....	7/21/17	J-84.05-00 .....	8/30/22
J-21.17-01 .....	6/10/13	J-40.37-02.....	7/21/17	J-86.10-00 .....	6/28/18
J-21.20-01 .....	6/10/13	J-40.38-01.....	5/20/13	J-90.10-03 .....	6/28/18
J-22.15-03 .....	6/21/24	J-40.39-00.....	5/20/13	J-90.20-03 .....	6/28/18
J-22.16-03 .....	7/10/15	J-40.40-02.....	7/31/19	J-90.21-02 .....	6/28/18
J-22.17-00 .....	6/21/24	J-45.36-00.....	7/21/17	J-90.50-00 .....	6/28/18
K-70.20-01.....	6/1/16	K-80.32-00 .....	8/17/21	K-80.35-01 .....	9/16/20
K-80.10-02.....	9/25/20	K-80.34-00 .....	8/17/21	K-80.37-01 .....	9/16/20
L-5.10-02 .....	6/5/24	L-20.10-03.....	7/14/15	L-40.20-02 .....	6/21/12
L-5.15-00 .....	9/19/22	L-30.10-02.....	6/11/14	L-70.10-01 .....	5/21/08
L-10.10-02 .....	6/21/12	L-40.15-01.....	6/16/11	L-70.20-01 .....	5/21/08
M-1.20-04 .....	9/25/20	M-9.60-00 .....	2/10/09	M-24.66-00 ....	7/11/17
M-1.40-03 .....	9/25/20	M-11.10-04.....	8/2/22	M-40.10-04 ..	10/17/23
M-1.60-03 .....	9/25/20	M-12.10-04.....	6/28/24	M-40.20-00 ..	10/12/07
M-1.80-03 .....	6/3/11	M-15.10-02.....	7/17/23	M-40.30-01 ....	7/11/17
M-2.20-03 .....	7/10/15	M-17.10-02.....	7/3/08	M-40.40-00 ....	9/20/07
M-2.21-00 .....	7/10/15	M-20.10-04.....	8/2/22	M-40.50-00 ....	9/20/07
M-3.10-04 .....	9/25/20	M-20.20-02.....	4/20/15	M-40.60-00 ....	9/20/07
M-3.20-04 .....	8/2/22	M-20.30-05.....	6/28/24	M-60.10-01 .....	6/3/11
M-3.30-04 .....	9/25/20	M-20.40-03.....	6/24/14	M-60.20-03 ....	8/17/21
M-3.40-04 .....	9/25/20	M-20.50-02.....	6/3/11	M-65.10-03 ....	8/17/21
M-3.50-03 .....	9/25/20	M-24.20-02.....	4/20/15	M-80.10-01 .....	6/3/11
M-5.10-03 .....	9/25/20	M-24.40-02.....	4/20/15	M-80.20-00 ....	6/10/08
M-7.50-01 .....	1/30/07	M-24.60-04.....	6/24/14	M-80.30-00 ....	6/10/08
M-9.50-02 .....	6/24/14	M-24.65-00.....	7/11/17		



## **ATTACHMENTS**

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State of Washington  
Department of Labor & Industries  
Prevailing Wage Section - Telephone 360-902-5335  
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

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Journey Level Prevailing Wage Rates for the Effective Date: 04/01/2025

## Kitsap County

Trade^	Job Classification	Wage	Holiday	Overtime	Note
<u>Asbestos Abatement Workers</u>	Journey Level	\$63.87	<b>5D</b>	<b>1H</b>	
<u>Boilermakers</u>	Journey Level	\$78.89	<b>5N</b>	<b>1C</b>	
<u>Brick Mason</u>	Journey Level	\$71.82	<b>7E</b>	<b>1N</b>	
<u>Brick Mason</u>	Pointer-Caulker-Cleaner	\$71.82	<b>7E</b>	<b>1N</b>	
<u>Building Service Employees</u>	Janitor	\$16.66		<b>1</b>	
<u>Building Service Employees</u>	Shampooer	\$16.66		<b>1</b>	
<u>Building Service Employees</u>	Waxer	\$16.66		<b>1</b>	

<u>Building Service Employees</u>	Window Cleaner	\$16.66		<b>1</b>	
<u>Cabinet Makers (In Shop)</u>	Journey Level	\$23.72		<b>1</b>	
<u>Carpenters</u>	Acoustical Worker	\$78.96	<b>15J</b>	<b>11U</b>	
<u>Carpenters</u>	Bridge Dock and Wharf Carpenter	\$80.50	<b>15J</b>	<b>11U</b>	<b>9L</b>
<u>Carpenters</u>	Floor Layer & Floor Finisher	\$78.96	<b>15J</b>	<b>11U</b>	
<u>Carpenters</u>	General Carpenter	\$78.96	<b>15J</b>	<b>11U</b>	
<u>Carpenters</u>	Scaffold Erector	\$78.96	<b>15J</b>	<b>11U</b>	
<u>Cement Masons</u>	Application of all Composition Mastic	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Application of all Epoxy Material	\$76.78	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Application of all Plastic Material	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Application of Sealing Compound	\$76.78	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Application of Underlayment	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Building General	\$76.78	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Composition or Kalman Floors	\$77.30	<b>15J</b>	<b>4U</b>	

<u>Cement Masons</u>	Concrete Paving	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Curb & Gutter Machine	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Curb & Gutter, Sidewalks	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Curing Concrete	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Finish Colored Concrete	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Floor Grinding	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Floor Grinding/Polisher	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Green Concrete Saw, self-powered	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Grouting of all Plates	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Grouting of all Tilt-up Panels	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Guniting Nozzleman	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Hand Powered Grinder	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Journey Level	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Patching Concrete	\$76.78	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Pneumatic Power Tools	\$77.30	<b>15J</b>	<b>4U</b>
<u>Cement Masons</u>	Power Chipping & Brushing	\$77.30	<b>15J</b>	<b>4U</b>

<u>Cement Masons</u>	Sand Blasting Architectural Finish	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Screed & Rodding Machine	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Spackling or Skim Coat Concrete	\$76.78	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Troweling Machine Operator	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Troweling Machine Operator on Colored Slabs	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Cement Masons</u>	Tunnel Workers	\$77.30	<b>15J</b>	<b>4U</b>	
<u>Divers &amp; Tenders</u>	Bell/Vehicle/Submersible Operator (not under pressure)	\$156.25	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Dive Supervisor	\$157.75	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Diver	\$156.25	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Diver Tender	\$86.86	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$109.76	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 31.01-44.00 PSI	\$118.99	<b>15J</b>	<b>11U</b>	

<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$128.22	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$137.45	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$146.67	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$155.90	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$165.13	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$174.36	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$183.59	<b>15J</b>	<b>11U</b>	
<u>Divers &amp; Tenders</u>	Lead Diver (Dive Master)	\$101.32	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Manifold Operator (Life Support Technician)	\$86.86	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Remote Operated Vehicle Operator/Technician	\$86.86	<b>15J</b>	<b>11T</b>	<b>9I</b>

<u>Divers &amp; Tenders</u>	Remote Operated Vehicle Operator/Technician	\$86.86	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Remote Operated Vehicle Tender	\$80.55	<b>15J</b>	<b>11T</b>	<b>9I</b>
<u>Divers &amp; Tenders</u>	Stand-by Diver	\$96.32	<b>15J</b>	<b>11T</b>	<b>9I</b>
Dredge Workers	Assistant Engineer	\$85.37	<b>5D</b>	<b>3F</b>	
Dredge Workers	Assistant Mate (Deckhand)	\$84.71	<b>5D</b>	<b>3F</b>	
Dredge Workers	Boatmen	\$85.37	<b>5D</b>	<b>3F</b>	
Dredge Workers	Engineer Welder	\$87.02	<b>5D</b>	<b>3F</b>	
Dredge Workers	Leverman, Hydraulic	\$88.77	<b>5D</b>	<b>3F</b>	
Dredge Workers	Mates	\$85.37	<b>5D</b>	<b>3F</b>	
Dredge Workers	Oiler	\$84.71	<b>5D</b>	<b>3F</b>	
<u>Drywall Applicator</u>	Journey Level	\$78.76	<b>150</b>	<b>11S</b>	
<u>Drywall Tapers</u>	Journey Level	\$78.76	<b>150</b>	<b>11S</b>	
<u>Electrical Fixture Maintenance Workers</u>	Journey Level	\$40.69	<b>5L</b>	<b>1E</b>	
<u>Electricians - Inside</u>	Cable Splicer	\$115.15	<b>7C</b>	<b>4E</b>	
<u>Electricians - Inside</u>	Cable Splicer (tunnel)	\$123.64	<b>7C</b>	<b>4E</b>	
<u>Electricians - Inside</u>	Certified Welder	\$111.30	<b>7C</b>	<b>4E</b>	

<u>Electricians - Inside</u>	Certified Welder (tunnel)	\$119.41	<b>7C</b>	<b>4E</b>	
<u>Electricians - Inside</u>	Construction Stock Person	\$54.03	<b>7C</b>	<b>4E</b>	
<u>Electricians - Inside</u>	Journey Level	\$107.44	<b>7C</b>	<b>4E</b>	
<u>Electricians - Inside</u>	Journey Level (tunnel)	\$115.15	<b>7C</b>	<b>4E</b>	
<u>Electricians - Motor Shop</u>	Craftsman	\$16.66		<b>1</b>	
<u>Electricians - Motor Shop</u>	Journey Level	\$16.66		<b>1</b>	
<u>Electricians - Powerline Construction</u>	Cable Splicer	\$102.42	<b>5A</b>	<b>4D</b>	
<u>Electricians - Powerline Construction</u>	Certified Line Welder	\$93.99	<b>5A</b>	<b>4D</b>	
<u>Electricians - Powerline Construction</u>	Groundperson	\$59.30	<b>5A</b>	<b>4D</b>	
<u>Electricians - Powerline Construction</u>	Heavy Line Equipment Operator	\$93.99	<b>5A</b>	<b>4D</b>	
<u>Electricians - Powerline Construction</u>	Journey Level Lineperson	\$93.99	<b>5A</b>	<b>4D</b>	
<u>Electricians - Powerline Construction</u>	Line Equipment Operator	\$80.96	<b>5A</b>	<b>4D</b>	
<u>Electricians - Powerline Construction</u>	Meter Installer	\$59.30	<b>5A</b>	<b>4D</b>	<b>8W</b>
<u>Electricians - Powerline Construction</u>	Pole Sprayer	\$93.99	<b>5A</b>	<b>4D</b>	

<u>Electricians - Powerline Construction</u>	Powderperson	\$69.84	<b>5A</b>	<b>4D</b>	
<u>Electronic Technicians</u>	Journey Level	\$69.69	<b>7E</b>	<b>1E</b>	
<u>Elevator Constructors</u>	Mechanic	\$115.14	<b>7D</b>	<b>4A</b>	
<u>Elevator Constructors</u>	Mechanic In Charge	\$124.53	<b>7D</b>	<b>4A</b>	
Fabricated Precast Concrete Products	Journey Level	\$16.66		<b>1</b>	
Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	\$16.66		<b>1</b>	
<u>Fence Erectors</u>	Fence Erector	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Fence Erectors</u>	Fence Laborer	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Flaggers</u>	Journey Level	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Glaziers</u>	Journey Level	\$82.16	<b>7L</b>	<b>1Y</b>	
<u>Heat &amp; Frost Insulators And Asbestos Workers</u>	Journey Level	\$91.81	<b>15H</b>	<b>11C</b>	
<u>Heating Equipment Mechanics</u>	Journey Level	\$99.92	<b>7F</b>	<b>1E</b>	
<u>Hod Carriers &amp; Mason Tenders</u>	Journey Level	\$67.38	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Industrial Power Vacuum Cleaner</u>	Journey Level	\$29.89		<b>1</b>	
<u>Inland Boatmen</u>	Boat Operator	\$71.28	<b>5B</b>	<b>1K</b>	



<u>Inland Boatmen</u>	Cook	\$69.70	<b>5B</b>	<b>1K</b>
<u>Inland Boatmen</u>	Deckhand	\$70.00	<b>5B</b>	<b>1K</b>
<u>Inland Boatmen</u>	Deckhand Engineer	\$69.55	<b>5B</b>	<b>1K</b>
<u>Inland Boatmen</u>	Launch Operator	\$71.23	<b>5B</b>	<b>1K</b>
<u>Inland Boatmen</u>	Mate	\$89.12	<b>5B</b>	<b>1K</b>
<u>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</u>	Cleaner Operator	\$51.27	<b>15M</b>	<b>110</b>
<u>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</u>	Foamer Operator	\$51.27	<b>15M</b>	<b>110</b>
<u>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</u>	Grout Truck Operator	\$51.27	<b>15M</b>	<b>110</b>
<u>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</u>	Head Operator	\$49.20	<b>15M</b>	<b>110</b>
<u>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</u>	Technician	\$42.99	<b>15M</b>	<b>110</b>
<u>Inspection/Cleaning/Sealing Of Sewer &amp; Water Systems By Remote Control</u>	TV Truck Operator	\$46.10	<b>15M</b>	<b>110</b>
<u>Insulation Applicators</u>	Journey Level	\$78.96	<b>15J</b>	<b>11U</b>

<u>Ironworkers</u>	Journeyman	\$90.82	<b>15K</b>	<b>11N</b>	
<u>Laborers</u>	Air, Gas Or Electric Vibrating Screed	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Airtrac Drill Operator	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Ballast Regular Machine	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Batch Weighman	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Brick Pavers	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Brush Cutter	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Brush Hog Feeder	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Burner	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Caisson Worker	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Carpenter Tender	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Cement Dumper-paving	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Cement Finisher Tender	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Change House Or Dry Shack	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Chipping Gun (30 Lbs. And Over)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Chipping Gun (Under 30 Lbs.)	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>

<u>Laborers</u>	Choker Setter	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Chuck Tender	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Clary Power Spreader	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Clean-up Laborer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Concrete Dumper/Chute Operator	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Concrete Form Stripper	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Concrete Placement Crew	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Concrete Saw Operator/Core Driller	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Crusher Feeder	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Curing Laborer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Demolition: Wrecking & Moving (Incl. Charred Material)	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Ditch Digger	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Diver	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Drill Operator (Hydraulic, Diamond)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Dry Stack Walls	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>

<u>Laborers</u>	Dump Person	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Epoxy Technician	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Erosion Control Worker	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Faller & Bucker Chain Saw	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Fine Graders	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Firewatch	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Form Setter	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Gabian Basket Builders	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	General Laborer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Grade Checker & Transit Person	\$67.38	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Grinders	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Grout Machine Tender	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Groutmen (Pressure) Including Post Tension Beams	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Guardrail Erector	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Hazardous Waste Worker (Level A)	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>

<u>Laborers</u>	Hazardous Waste Worker (Level B)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Hazardous Waste Worker (Level C)	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	High Scaler	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Jackhammer	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Laserbeam Operator	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Maintenance Person	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Manhole Builder-Mudman	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Material Yard Person	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Mold Abatement Worker	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Motorman-Dinky Locomotive	\$67.48	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	\$67.38	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pavement Breaker	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>

<u>Laborers</u>	Pilot Car	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pipe Layer (Lead)	\$67.38	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pipe Layer/Tailor	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pipe Pot Tender	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pipe Reliner	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pipe Wrapper	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Pot Tender	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Powderman	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Powderman's Helper	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Power Jacks	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Power Washer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Railroad Spike Puller - Power	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Raker - Asphalt	\$67.38	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Re-timberman	\$65.75	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Remote Equipment Operator	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Rigger/Signal Person	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>

<u>Laborers</u>	Rip Rap Person	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Rivet Buster	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Rodder	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Scaffold Erector	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Scale Person	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Sloper (Over 20")	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Sloper Sprayer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Spreader (Concrete)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Stake Hopper	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Stock Piler	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Swinging Stage/Boatswain Chair	\$54.65	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Tamper & Similar Electric, Air & Gas Operated Tools	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Tamper (Multiple & Self- propelled)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Toolroom Person (at Jobsite)	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>

<u>Laborers</u>	Topper	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Track Laborer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Track Liner (Power)	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Traffic Control Laborer	\$58.20	<b>15J</b>	<b>11P</b>	<b>9C</b>
<u>Laborers</u>	Traffic Control Supervisor	\$61.47	<b>15J</b>	<b>11P</b>	<b>9C</b>
<u>Laborers</u>	Truck Spotter	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Tugger Operator	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 0-30 psi	\$200.40	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$205.43	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$209.11	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$214.81	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$216.93	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 64.01-68.00	\$222.03	<b>15J</b>	<b>11P</b>	<b>9B</b>



	psi				
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$223.93	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$225.93	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$227.93	<b>15J</b>	<b>11P</b>	<b>9B</b>
<u>Laborers</u>	Tunnel Work-Guage and Lock Tender	\$67.48	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Tunnel Work-Miner	\$67.48	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Vibrator	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Vinyl Seamer	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Watchman	\$49.97	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Welder	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Well Point Laborer	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers</u>	Window Washer/Cleaner	\$49.97	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers - Underground Sewer &amp; Water</u>	General Laborer & Topman	\$63.87	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Laborers - Underground Sewer &amp; Water</u>	Pipe Layer	\$64.98	<b>15J</b>	<b>11P</b>	<b>8Y</b>

	Landscape				
<u>Landscape Construction</u>	Construction/Landscaping Or Planting Laborers	\$49.97	<b>15J</b>	<b>11P</b>	<b>8Y</b>
<u>Landscape Construction</u>	Landscape Operator	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Landscape Maintenance</u>	Groundskeeper	\$16.66		<b>1</b>	
<u>Lathers</u>	Journey Level	\$78.76	<b>150</b>	<b>11S</b>	
<u>Marble Setters</u>	Journey Level	\$71.82	<b>7E</b>	<b>1N</b>	
<u>Metal Fabrication (In Shop)</u>	Fitter	\$26.96		<b>1</b>	
<u>Metal Fabrication (In Shop)</u>	Laborer	\$16.66		<b>1</b>	
<u>Metal Fabrication (In Shop)</u>	Machine Operator	\$16.66		<b>1</b>	
<u>Metal Fabrication (In Shop)</u>	Welder	\$16.66		<b>1</b>	
<u>Millwright</u>	Journey Level	\$80.28	<b>15J</b>	<b>4C</b>	
Modular Buildings	Cabinet Assembly	\$16.66		<b>1</b>	
Modular Buildings	Electrician	\$16.66		<b>1</b>	
Modular Buildings	Equipment Maintenance	\$16.66		<b>1</b>	
Modular Buildings	Plumber	\$16.66		<b>1</b>	
Modular Buildings	Production Worker	\$16.66		<b>1</b>	
Modular Buildings	Tool Maintenance	\$16.66		<b>1</b>	

Modular Buildings	Utility Person	\$16.66		<b>1</b>	
Modular Buildings	Welder	\$16.66		<b>1</b>	
<u>Painters</u>	Journey Level	\$54.71	<b>6Z</b>	<b>11J</b>	
<u>Pile Driver</u>	Crew Tender	\$86.81	<b>15J</b>	<b>11U</b>	<b>9L</b>
<u>Pile Driver</u>	Journey Level	\$80.50	<b>15J</b>	<b>11U</b>	<b>9L</b>
<u>Plasterers</u>	Journey Level	\$73.54	<b>7Q</b>	<b>1R</b>	
<u>Plasterers</u>	Nozzleman	\$77.54	<b>7Q</b>	<b>1R</b>	
<u>Playground &amp; Park Equipment Installers</u>	Journey Level	\$16.66		<b>1</b>	
<u>Plumbers &amp; Pipefitters</u>	Journey Level	\$90.87	<b>5A</b>	<b>1G</b>	
<u>Power Equipment Operators</u>	Asphalt Plant Operators	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Assistant Engineer	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Barrier Machine (zipper)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Batch Plant Operator: concrete	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Boat Operator	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Bobcat	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Brokk - Remote Demolition Equipment	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Brooms	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Bump Cutter	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cableways	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Chipper	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Compressor	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Concrete Finish Machine - Laser Screed	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Conveyors	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Cranes Friction: 200 tons and over	\$86.68	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes, A-frame: 10 tons and under	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$84.97	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: 20 tons through 44 tons with attachments	\$83.38	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$85.84	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$86.68	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: Friction cranes through 199 tons	\$85.84	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Crusher	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Deck Engineer/Deck Winches (power)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Derricks, On Building Work	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Dozers D-9 & Under	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Drill Oilers: Auger Type, Truck Or Crane Mount	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Drilling Machine	\$86.39	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Elevator and man-lift: permanent and shaft type	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Forklift: 3000 lbs and over with attachments	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Forklifts: under 3000 lbs. with attachments	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Gradechecker/Stakeman	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Guardrail Punch	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Horizontal/Directional Drill Locator	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Horizontal/Directional Drill Operator	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Hydralifts/Boom Trucks Over 10 Tons	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Hydralifts/boom trucks: 10 tons and under	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Leverman	\$87.28	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Loaders, Overhead Under 6 Yards	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Loaders, Plant Feed	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Loaders: Elevating Type Belt	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Locomotives, All	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Material Transfer Device	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$86.39	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Motor Patrol Graders	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Overhead, bridge type Crane: 20 tons through 44 tons	\$83.38	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Overhead, bridge type: 100 tons and over	\$84.97	<b>7A</b>	<b>11H</b>	<b>8X</b>



<u>Power Equipment Operators</u>	Overhead, bridge type: 45 tons through 99 tons	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Pavement Breaker	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Pile Driver (other Than Crane Mount)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Plant Oiler - Asphalt, Crusher	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Posthole Digger, Mechanical	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Power Plant	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Pumps - Water	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Quad 9, Hd 41, D10 And Over	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Quick Tower: no cab, under 100 feet in height base to boom	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Rigger and Bellman	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Rigger/Signal Person, Bellman(Certified)	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Rollagon	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Roller, Other Than Plant Mix	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Roller, Plant Mix Or Multi-lift Materials	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Roto-mill, Roto-grinder	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Saws - Concrete	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Scraper, Self Propelled Under 45 Yards	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Scrapers - Concrete & Carry All	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Scrapers, Self-propelled: 45 Yards And Over	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Service Engineers: Equipment	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Shotcrete/Gunite Equipment	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$86.39	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$87.28	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Slipform Pavers	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Spreader, Topsider & Screedman	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Subgrader Trimmer	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Tower Bucket Elevators	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Tower Crane: over 175' through 250' in height, base to boom	\$85.84	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Tower crane: up to 175' in height base to boom	\$84.97	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Tower Cranes: over 250' in height from base to boom	\$86.68	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Transporters, All Track Or Truck Type	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment Operators</u>	Trenching Machines	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Truck Crane Oiler/Driver: 100 tons and over	\$83.38	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Truck crane oiler/driver: under 100 tons	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Truck Mount Portable Conveyor	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Welder	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Wheel Tractors, Farmall Type	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators</u>	Yo Yo Pay Dozer	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators- Underground Sewer &amp; Water</u>	Asphalt Plant Operators	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators- Underground Sewer &amp; Water</u>	Assistant Engineer	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment Operators- Underground Sewer &amp; Water</u>	Barrier Machine (zipper)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment</u>	Batch Plant Operator,	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	Concrete				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Boat Operator	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Bobcat	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Brokk - Remote	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	Demolition Equipment				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Brooms	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Bump Cutter	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Cableways	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Chipper	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Compressor	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					

<u>Power Equipment</u>	Concrete Finish Machine -				
<u>Operators- Underground</u>	Laser Screed	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Concrete Pump - Mounted				
<u>Operators- Underground</u>	Or Trailer High Pressure	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Line Pump, Pump High Pressure				
<u>Power Equipment</u>	Concrete Pump: Truck				
<u>Operators- Underground</u>	Mount With Boom	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Attachment Over 42 M				
<u>Power Equipment</u>	Concrete Pump: Truck				
<u>Operators- Underground</u>	Mount With Boom	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Attachment Up To 42m				
<u>Power Equipment</u>					
<u>Operators- Underground</u>	Conveyors	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Cranes Friction: 200 tons	\$86.68	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Operators- Underground</u>	and over				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Cranes, A-frame: 10 tons	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Operators- Underground</u>	and under				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Cranes: 100 tons through				
<u>Operators- Underground</u>	199 tons, or 150' of boom	\$84.97	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	(including jib with attachments)				

<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Cranes: 20 tons through 44 tons with attachments	\$83.38	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$85.84	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$86.68	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Cranes: Friction cranes through 199 tons	\$85.84	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Crusher	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Deck Engineer/Deck Winches (power)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Power Equipment</u>	Derricks, On Building				
<u>Operators- Underground</u>	Work	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Dozers D-9 & Under	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Drill Oilers: Auger Type,	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	Truck Or Crane Mount				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Drilling Machine	\$86.39	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Elevator and man-lift:	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	permanent and shaft type				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Finishing Machine, Bidwell				
<u>Operators- Underground</u>	And Gamaco & Similar	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Equipment				
<u>Power Equipment</u>	Forklift: 3000 lbs and over	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	with attachments				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Forklifts: under 3000 lbs.	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	with attachments				
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Grade Engineer: Using				
<u>Operators- Underground</u>	Blue Prints, Cut Sheets,	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Etc				



<u>Power Equipment</u>					
<u>Operators- Underground</u>	Gradechecker/Stakeman	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>					
<u>Operators- Underground</u>	Guardrail Punch	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Hard Tail End Dump				
<u>Operators- Underground</u>	Articulating Off- Road	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Equipment 45 Yards. & Over				
<u>Power Equipment</u>	Hard Tail End Dump				
<u>Operators- Underground</u>	Articulating Off-road	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Equipment Under 45 Yards				
<u>Power Equipment</u>	Horizontal/Directional Drill				
<u>Operators- Underground</u>	Locator	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Horizontal/Directional Drill				
<u>Operators- Underground</u>	Operator	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Hydralifts/boom trucks: 10				
<u>Operators- Underground</u>	tons and under	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Hydralifts/boom trucks:				
<u>Operators- Underground</u>	over 10 tons	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Leverman	\$87.28	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					

Sewer & Water

Power Equipment

Operators- Underground

Sewer & Water

Loader, Overhead, 6 Yards.  
But Not Including 8 Yards

\$85.52

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Loaders, Overhead Under  
6 Yards

\$84.75

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Loaders, Plant Feed

\$84.75

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Loaders: Elevating Type  
Belt

\$84.12

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Locomotives, All

\$84.75

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Material Transfer Device

\$84.75

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Mechanics: All (Leadmen -  
\$0.50 per hour over  
mechanic)

\$86.39

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Sewer & Water

Motor Patrol Graders

\$85.52

**15J**

**11G**

**8X**

Power Equipment

Operators- Underground

Mucking Machine, Mole,  
Tunnel Drill, Boring, Road

\$85.52

**15J**

**11G**

**8X**

<u>Sewer &amp; Water</u>	Header And/or Shield				
<u>Power Equipment</u>	Oil Distributors, Blower				
<u>Operators- Underground</u>	Distribution & Mulch	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Seeding Operator				
<u>Power Equipment</u>	Outside Hoists (Elevators				
<u>Operators- Underground</u>	and Manlifts), Air Tuggers,	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Strato				
<u>Power Equipment</u>	Overhead, bridge type				
<u>Operators- Underground</u>	Crane: 20 tons through 44	\$83.38	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	tons				
<u>Power Equipment</u>	Overhead, bridge type:				
<u>Operators- Underground</u>	100 tons and over	\$84.97	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Overhead, bridge type: 45				
<u>Operators- Underground</u>	tons through 99 tons	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Pavement Breaker	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>					
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Pile Driver (other Than				
<u>Operators- Underground</u>	Crane Mount)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Plant Oiler - Asphalt,				
<u>Operators- Underground</u>	Crusher	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Posthole Digger,	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Operators- Underground</u>	Mechanical				

Sewer & Water

Power Equipment

Operators- Underground      Power Plant      \$80.41      **15J**      **11G**      **8X**

Sewer & Water

Power Equipment

Operators- Underground      Pumps - Water      \$80.41      **15J**      **11G**      **8X**

Sewer & Water

Power Equipment

Operators- Underground      Quad 9, Hd 41, D10 And  
Over      \$85.52      **15J**      **11G**      **8X**

Sewer & Water

Power Equipment

Operators- Underground      Quick Tower: no cab,  
under 100 feet in height      \$84.75      **15J**      **11G**      **8X**  
Sewer & Water      base to boom

Power Equipment

Operators- Underground      Remote Control Operator  
On Rubber Tired Earth      \$85.52      **15J**      **11G**      **8X**  
Sewer & Water      Moving Equipment

Power Equipment

Operators- Underground      Rigger and Bellman      \$79.12      **7A**      **11H**      **8X**  
Sewer & Water

Power Equipment

Operators- Underground      Rigger/Signal Person,  
Bellman(Certified)      \$82.74      **7A**      **11H**      **8X**  
Sewer & Water

Power Equipment

Operators- Underground      Rollagon      \$85.52      **15J**      **11G**      **8X**  
Sewer & Water

Power Equipment

Operators- Underground      Roller, Other Than Plant  
Mix      \$80.41      **15J**      **11G**      **8X**

Sewer & Water

<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Roller, Plant Mix Or Multi- lift Materials	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Roto-mill, Roto-grinder	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Saws - Concrete	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Scraper, Self Propelled Under 45 Yards	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Scrapers - Concrete & Carry All	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Scrapers, Self-propelled: 45 Yards And Over	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Shotcrete/Gunite Equipment	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u>	Shovel, Excavator, Backhoe: Over 30 Metric	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>

<u>Sewer &amp; Water</u>	Tons To 50 Metric Tons				
<u>Power Equipment</u>	Shovel, Excavator,				
<u>Operators- Underground</u>	Backhoes, Tractors: 15 To	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	30 Metric Tons				
<u>Power Equipment</u>	Shovel, Excavator,				
<u>Operators- Underground</u>	Backhoes: Over 50 Metric	\$86.39	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Tons To 90 Metric Tons				
<u>Power Equipment</u>	Shovel, Excavator,				
<u>Operators- Underground</u>	Backhoes: Over 90 Metric	\$87.28	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Tons				
<u>Power Equipment</u>					
<u>Operators- Underground</u>	Slipform Pavers	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>					
<u>Operators- Underground</u>	Spreader, Topsider &	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	Screedman				
<u>Power Equipment</u>					
<u>Operators- Underground</u>	Subgrader Trimmer	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>					
<u>Operators- Underground</u>	Tower Bucket Elevators	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Sewer &amp; Water</u>					
<u>Power Equipment</u>	Tower Crane: over 175'				
<u>Operators- Underground</u>	through 250' in height,	\$85.84	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Sewer &amp; Water</u>	base to boom				
<u>Power Equipment</u>	Tower crane: up to 175' in	\$84.97	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Operators- Underground</u>	height base to boom				

Sewer & Water

<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Tower Cranes: over 250' in height from base to boom	\$86.68	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Transporters, All Track Or Truck Type	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Trenching Machines	\$84.12	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Truck Crane Oiler/Driver: 100 tons and over	\$83.38	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Truck crane oiler/driver: under 100 tons	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Truck Mount Portable Conveyor	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u> <u>Sewer &amp; Water</u>	Welder	\$85.52	<b>15J</b>	<b>11G</b>	<b>8X</b>
<u>Power Equipment</u> <u>Operators- Underground</u>	Wheel Tractors, Farmall Type	\$80.41	<b>15J</b>	<b>11G</b>	<b>8X</b>

Sewer & Water

Power Equipment

<u>Operators- Underground</u>	Yo Yo Pay Dozer	\$84.75	<b>15J</b>	<b>11G</b>	<b>8X</b>
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Sewer & Water

Power Line Clearance Tree Trimmers

Journey Level In Charge	\$64.20	<b>5A</b>	<b>4A</b>
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Power Line Clearance Tree Trimmers

Spray Person	\$60.74	<b>5A</b>	<b>4A</b>
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Power Line Clearance Tree Trimmers

Tree Equipment Operator	\$64.20	<b>5A</b>	<b>4A</b>
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Power Line Clearance Tree Trimmers

Tree Trimmer	\$57.29	<b>5A</b>	<b>4A</b>
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Power Line Clearance Tree Trimmers

Tree Trimmer	\$43.05	<b>5A</b>	<b>4A</b>
Groundperson			

Refrigeration & Air Conditioning Mechanics

Journey Level	\$95.46	<b>5A</b>	<b>1G</b>
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Residential Brick Mason	Journey Level	\$22.01		<b>1</b>
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Residential Carpenters	Journey Level	\$26.25		<b>1</b>
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Residential Cement Masons	Journey Level	\$39.88		<b>1</b>
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Residential Drywall Applicators	Journey Level	\$51.52	<b>15J</b>	<b>4C</b>
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Residential Drywall Tapers	Journey Level	\$25.84		<b>1</b>
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Residential Electricians	Journey Level	\$44.11		<b>1</b>
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Residential Glaziers	Journey Level	\$56.50	<b>7L</b>	<b>1H</b>
Residential Insulation Applicators	Journey Level	\$18.03		<b>1</b>
Residential Laborers	Journey Level	\$16.66		<b>1</b>
Residential Marble Setters	Journey Level	\$22.01		<b>1</b>
Residential Painters	Journey Level	\$20.85		<b>1</b>
Residential Plumbers & Pipefitters	Journey Level	\$40.60		<b>1</b>
Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$45.45		<b>1</b>
Residential Sheet Metal Workers	Journey Level	\$32.91		<b>1</b>
Residential Soft Floor Layers	Journey Level	\$22.03		<b>1</b>
Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$53.48		<b>1</b>
Residential Stone Masons	Journey Level	\$71.82	<b>7E</b>	<b>1N</b>
Residential Terrazzo Workers	Journey Level	\$16.66		<b>1</b>
Residential Terrazzo/Tile Finishers	Journey Level	\$39.09		<b>1</b>
Residential Tile Setters	Journey Level	\$35.40		<b>1</b>

<u>Roofers</u>	Journey Level	\$67.45	<b>5A</b>	<b>3H</b>
<u>Roofers</u>	Using Irritable Bituminous Materials	\$70.45	<b>5A</b>	<b>3H</b>
<u>Sheet Metal Workers</u>	Journey Level (Field or Shop)	\$99.92	<b>7F</b>	<b>1E</b>
Shipbuilding & Ship Repair	New Construction Boilermaker	\$58.93	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Carpenter	\$51.85	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Crane Operator	\$43.00	<b>7V</b>	<b>1</b>
Shipbuilding & Ship Repair	New Construction Electrician	\$58.98	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$91.81	<b>15H</b>	<b>11C</b>
Shipbuilding & Ship Repair	New Construction Laborer	\$58.60	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Machinist	\$58.79	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Operating Engineer	\$43.00	<b>7V</b>	<b>1</b>
Shipbuilding & Ship Repair	New Construction Painter	\$58.72	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Pipefitter	\$59.07	<b>7X</b>	<b>4J</b>

Shipbuilding & Ship Repair	New Construction Rigger	\$58.93	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Sheet Metal	\$58.68	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Shipwright	\$51.85	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	\$43.00	<b>7V</b>	<b>1</b>
Shipbuilding & Ship Repair	New Construction Welder / Burner	\$58.93	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Boilermaker	\$58.93	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Carpenter	\$51.85	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Crane Operator	\$45.06	<b>7Y</b>	<b>4K</b>
Shipbuilding & Ship Repair	Ship Repair Electrician	\$58.98	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$91.81	<b>15H</b>	<b>11C</b>
Shipbuilding & Ship Repair	Ship Repair Laborer	\$58.60	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Machinist	\$58.79	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Operating Engineer	\$45.06	<b>7Y</b>	<b>4K</b>
Shipbuilding & Ship Repair	Ship Repair Painter	\$58.72	<b>7X</b>	<b>4J</b>
Shipbuilding & Ship Repair	Ship Repair Pipefitter	\$59.07	<b>7X</b>	<b>4J</b>

Shipbuilding & Ship Repair	Ship Repair Rigger	\$58.93	<b>7X</b>	<b>4J</b>	
Shipbuilding & Ship Repair	Ship Repair Sheet Metal	\$58.68	<b>7X</b>	<b>4J</b>	
Shipbuilding & Ship Repair	Ship Repair Shipwright	\$51.85	<b>7X</b>	<b>4J</b>	
Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	\$45.06	<b>7Y</b>	<b>4K</b>	
<u>Sign Makers &amp; Installers</u> (Electrical).	Journey Level	\$60.46	<b>0</b>	<b>1</b>	
<u>Sign Makers &amp; Installers</u> (Non-Electrical).	Journey Level	\$38.53	<b>0</b>	<b>1</b>	
<u>Soft Floor Layers</u>	Journey Level	\$63.29	<b>15J</b>	<b>4C</b>	
<u>Solar Controls For Windows</u>	Journey Level	\$16.66		<b>1</b>	
<u>Sprinkler Fitters (Fire Protection).</u>	Journey Level	\$98.99	<b>5C</b>	<b>1X</b>	
<u>Stage Rigging Mechanics</u> (Non Structural).	Journey Level	\$16.66		<b>1</b>	
<u>Stone Masons</u>	Journey Level	\$71.82	<b>7E</b>	<b>1N</b>	
<u>Street And Parking Lot Sweeper Workers</u>	Journey Level	\$16.66		<b>1</b>	
<u>Surveyors</u>	Assistant Construction Site Surveyor	\$82.74	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Surveyors</u>	Chainman	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>

<u>Surveyors</u>	Construction Site Surveyor	\$84.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Surveyors</u>	Drone Operator (when used in conjunction with survey work only)	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Surveyors</u>	Ground Penetrating Radar Operator	\$79.12	<b>7A</b>	<b>11H</b>	<b>8X</b>
<u>Telecommunication Technicians</u>	Journey Level	\$69.69	<b>7E</b>	<b>1E</b>	
<u>Telephone Line Construction - Outside</u>	Cable Splicer	\$41.35	<b>5A</b>	<b>2B</b>	
<u>Telephone Line Construction - Outside</u>	Hole Digger/Ground Person	\$27.31	<b>5A</b>	<b>2B</b>	
<u>Telephone Line Construction - Outside</u>	Telephone Equipment Operator (Light)	\$34.53	<b>5A</b>	<b>2B</b>	
<u>Telephone Line Construction - Outside</u>	Telephone Lineperson	\$39.07	<b>5A</b>	<b>2B</b>	
<u>Terrazzo Workers</u>	Journey Level	\$67.51	<b>7E</b>	<b>1N</b>	
<u>Tile Setters</u>	Journey Level	\$65.51	<b>7E</b>	<b>1N</b>	
<u>Tile, Marble &amp; Terrazzo Finishers</u>	Finisher	\$56.34	<b>7E</b>	<b>1N</b>	
<u>Traffic Control Stripers</u>	All cleanup required in connection with traffic control stripers work (Group 1)	\$92.44	<b>15L</b>	<b>1K</b>	

<u>Traffic Control Stripers</u>	Handling, painting and installing of all car stops, stop signs and any other type sign (Group 2)	\$62.69	<b>15L</b>	<b>1K</b>
<u>Traffic Control Stripers</u>	Installation of guard rail and posts and similar protective devices (Group 2)	\$62.69	<b>15L</b>	<b>1K</b>
<u>Traffic Control Stripers</u>	Installation of parking gates, ticket spitters and other mechanical and automatic control devices (Group 2)	\$62.69	<b>15L</b>	<b>1K</b>
<u>Traffic Control Stripers</u>	Installation of plastic metal or composition button, or lines used instead of paint (Group 1)	\$92.44	<b>15L</b>	<b>1K</b>
<u>Traffic Control Stripers</u>	Line removal; chemical sand and hydro-blast, paint and button (Group 1)	\$92.44	<b>15L</b>	<b>1K</b>
<u>Traffic Control Stripers</u>	Manufacturing and installation of all car stops and control devices and similar traffic regulators (Group 2)	\$62.69	<b>15L</b>	<b>1K</b>
<u>Traffic Control Stripers</u>	Manufacturing, painting, stenciling, servicing, repairing, placing and removal of traffic safety	\$62.69	<b>15L</b>	<b>1K</b>

	and control devices/barricades (Group 2)				
<u>Traffic Control Stripers</u>	Painting and installing lines, arrows, bumpers, curbs, etc., on parking lots, air fields, highways, game courts (Group 1)	\$92.44	<b>15L</b>	<b>1K</b>	
<u>Traffic Control Stripers</u>	Preparation and maintenance of all surfaces (Group 1)	\$92.44	<b>15L</b>	<b>1K</b>	
<u>Traffic Control Stripers</u>	Seal coating, slurry coating and other surface protection (Group 2)	\$62.69	<b>15L</b>	<b>1K</b>	
<u>Truck Drivers</u>	Asphalt Mix Over 16 Yards	\$78.65	<b>15J</b>	<b>11M</b>	<b>8L</b>
<u>Truck Drivers</u>	Asphalt Mix To 16 Yards	\$77.81	<b>15J</b>	<b>11M</b>	<b>8L</b>
<u>Truck Drivers</u>	Dump Truck	\$77.81	<b>15J</b>	<b>11M</b>	<b>8L</b>
<u>Truck Drivers</u>	Dump Truck & Trailer	\$78.65	<b>15J</b>	<b>11M</b>	<b>8L</b>
<u>Truck Drivers</u>	Other Trucks	\$78.65	<b>15J</b>	<b>11M</b>	<b>8L</b>
<u>Truck Drivers - Ready Mix</u>	Transit Mix	\$78.65	<b>15J</b>	<b>11M</b>	<b>8L</b>
<u>Well Drillers &amp; Irrigation Pump Installers</u>	Irrigation Pump Installer	\$16.66		<b>1</b>	
<u>Well Drillers &amp; Irrigation Pump Installers</u>	Oiler	\$16.66		<b>1</b>	

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Well Drillers & Irrigation

Well Driller

\$16.66

**1**

Pump Installers

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### Overtime Codes

**Overtime calculations** are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
  - B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
  - G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
  - I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.
  - J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.
  - K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
  - M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

**Overtime Codes Continued**

1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.
- P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.
- R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.
- W. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.
- Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.
- Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

**Overtime Codes Continued**

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
- F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.
- M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.
- R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.
3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
- H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.
- J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

**Overtime Codes Continued**

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

- A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage
- C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:

On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

- E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.  
  
On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

**Overtime Codes Continued**

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.
- S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).
- All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus \$2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).
- U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

**Overtime Codes Continued**

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without at a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

**Overtime Codes Continued**

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

C The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

**Overtime Codes Continued**

11. F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.
- All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.
- H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.
- All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.
- J. All hours worked on holidays shall be paid at double the hourly rate of wage.
- K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.
- L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar (\$2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

**Overtime Codes Continued**

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.
- Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars (\$2.00) per hour.
- N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.
- Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.
- O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.



**Overtime Codes Continued**

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.
- Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.
- In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.
- R. On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.
- S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.
- All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

## Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

11. T. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.
- All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- U. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.
- All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- If, due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a Special Shift may be worked, Monday through Friday, at the straight-time rate. The starting time of work for the Special Shift will be arranged to fit such conditions of work. Such Special Shift shall consist of eight (8) hours of work for eight (8) hours of pay or ten (10) hours of work for ten(10) hours of pay on a four-ten workday schedule.

### Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).
- C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).
- H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).

**Holiday Codes Continued**

5. I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).
- L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).
- N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.
- Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).
- S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

**Holiday Codes Continued**

6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).
- H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).
- T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

**Holiday Codes Continued**

7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

**Holiday Codes Continued**

7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

**Holiday Codes Continued**

7. K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.
- X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.
- Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

**Holiday Codes Continued**

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- O. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, the day before Christmas day, and Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

**Note Codes**

8. D. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.
- M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: \$1.00, Levels C & D: \$0.50.
- N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.
- S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: \$2.00, Class B Suit: \$1.50, And Class C Suit: \$1.00. Workers performing underground work receive an additional \$0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional \$0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional \$0.50 per hour.
8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.
- Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.
- Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.

**Note Codes Continued**

- X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50. Special Shift Premium: Basic hourly rate plus \$2.00 per hour.

When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

- Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- Z. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

**Note Codes Continued**

9. A. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130' to 199' – \$0.50 per hour over their classification rate.

(B) – 200' to 299' – \$0.80 per hour over their classification rate.

(C) – 300' and over – \$1.00 per hour over their classification rate.



**Note Codes Continued**

9. B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

- D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.
- E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.
- F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.
- H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.

Benefit Code Key – Effective 3/5/2025 thru 8/30/2025

9. I. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.
- Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.
- Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- Employees may be required to perform any combination of work within the Diving team/crew, (with the exception of dive Supervisor) provided they are paid at the highest rate at which he/she has worked for the shift.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.
- Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.
- Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

**Washington State Department of Labor and Industries**  
**Policy Statement**  
**(Regarding the Production of "Standard" or "Non-standard" Items)**

Below is the department's (State L&I's) list of criteria to be used in determining whether a prefabricated item is "standard" or "non-standard". For items not appearing on WSDOT's predetermined list, these criteria shall be used by the Contractor (and the Contractor's subcontractors, agents to subcontractors, suppliers, manufacturers, and fabricators) to determine coverage under RCW 39.12. The production, in the State of Washington, of non-standard items is covered by RCW 39.12, and the production of standard items is not. The production of any item outside the State of Washington is not covered by RCW 39.12.

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.
2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.
3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.
4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.
5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.
6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

Any firm with questions regarding the policy, WSDOT's Predetermined List, or for determinations of covered and non-covered workers shall be directed to State L&I at (360) 902-5330.

**WSDOT's  
Predetermined List for  
Suppliers - Manufacturers - Fabricators**

Below is a list of potentially prefabricated items, originally furnished by WSDOT to Washington State Department of Labor and Industries, that may be considered non-standard and therefore covered by the prevailing wage law, RCW 39.12. Items marked with an X in the "YES" column should be considered to be non-standard and therefore covered by RCW 39.12. Items marked with an X in the "NO" column should be considered to be standard and therefore not covered. Of course, exceptions to this general list may occur, and in that case shall be evaluated according to the criteria described in State and L&I's policy statement.

ITEM DESCRIPTION	YES	NO
1. Metal rectangular frames, solid metal covers, herringbone grates, and bi-directional vanned grates for Catch Basin Types 1, 1L, 1P, and 2 and Concrete Inlets. See Std. Plans		<b>X</b>
2. Metal circular frames (rings) and covers, circular grates, and prefabricated ladders for Manhole Types 1, 2, and 3, Drywell Types 1, 2, and 3 and Catch Basin Type 2. See Std. Plans		<b>X</b>
3. Prefabricated steel grate supports and welded grates, metal frames and dual vanned grates, and Type 1, 2, and 3 structural tubing grates for Drop Inlets. See Std. Plans.		<b>X</b>
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		<b>X</b>
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		<b>X</b>
6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.		<b>X</b>
7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.		<b>X</b>

ITEM DESCRIPTION	YES	NO
8. Anchor Bolts & Nuts - Anchor Bolts and Nuts, for mounting sign structures, luminaries and other items, shall be made from commercial bolt stock. See Contract Plans and Std. Plans for size and material type.		<b>X</b>
9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and material specifications set forth in the contract plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).	<b>X</b>	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	<b>X</b>	
11. Minor Structural Steel Fabrication - Fabrication of minor steel Items such as special hangers, brackets, access doors for structures, access ladders for irrigation boxes, bridge expansion joint systems, etc., involving welding, cutting, punching and/or boring of holes. See Contact Plans for item description and shop drawings.	<b>X</b>	
12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the type and material specifications set forth in the Contract Plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).		<b>X</b>
13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70 ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec..	<b>X</b>	
14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat top slabs. See Std. Plans.		<b>X</b>
15. Precast Drywell Types 1, 2, and with cones and adjustment Sections. See Std. Plans.		<b>X</b>
16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2 With adjustment sections. See Std. Plans.		<b>X</b>

ITEM DESCRIPTION	YES	NO
17. Precast Concrete Inlet - with adjustment sections, See Std. Plans		<b>X</b>
18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.		<b>X</b>
19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans		<b>X</b>
20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans		<b>X</b>
21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings are to be provided for approval prior to casting		<b>X</b>
22. Vault Risers - For use with Valve Vaults and Utilities  X Vaults.		<b>X</b>
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		<b>X</b>
24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.		<b>X</b>
25. Reinforced Earth Wall Panels – Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.	<b>X</b>	
26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used	<b>X</b>	

ITEM DESCRIPTION	YES	NO
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	<b>X</b>	
28. 12, 18 and 26 inch Standard Precast Prestressed Girder – Standard Precast Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
31. Prestressed Precast Hollow-Core Slab – Precast Prestressed Hollow-core slab for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A.	<b>X</b>	
32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	<b>X</b>	
33. Monument Case and Cover See Std. Plan.		<b>X</b>

ITEM DESCRIPTION	YES	NO
34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	<b>X</b>	
35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.	<b>X</b>	
36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	<b>X</b>	
37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication		<b>X</b>
38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.	<b>X</b>	
39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plans. See Special Provisions for pre-approved drawings.	<b>X</b>	
40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans. See Special Provisions for pre-approved drawings	<b>X</b>	
41. Precast Concrete Sloped Mountable Curb (Single and DualFaced) See Std. Plans.		<b>X</b>



ITEM DESCRIPTION	YES	NO
42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the sources of the following materials must be submitted and approved for reflective sheeting, legend material, and aluminum sheeting. <b>NOTE:</b> *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed	<b>X</b>	<b>X</b>
	Custom Message	Std Signing Message
43. Cutting & bending reinforcing steel		<b>X</b>
44. Guardrail components	<b>X</b>	<b>X</b>
	Custom End Sec	Standard Sec
45. Aggregates/Concrete mixes	Covered by WAC 296-127-018	
46. Asphalt	Covered by WAC 296-127-018	
47. Fiber fabrics		<b>X</b>
48. Electrical wiring/components		<b>X</b>
49. treated or untreated timber pile		<b>X</b>
50. Girder pads (elastomeric bearing)	<b>X</b>	
51. Standard Dimension lumber		<b>X</b>
52. Irrigation components		<b>X</b>

ITEM DESCRIPTION	YES	NO
53. Fencing materials		<b>X</b>
54. Guide Posts		<b>X</b>
55. Traffic Buttons		<b>X</b>
56. Epoxy		<b>X</b>
57. Cribbing		<b>X</b>
58. Water distribution materials		<b>X</b>
59. Steel "H" piles		<b>X</b>
60. Steel pipe for concrete pile casings		<b>X</b>
61. Steel pile tips, standard		<b>X</b>
62. Steel pile tips, custom	<b>X</b>	

Prefabricated items specifically produced for public works projects that are prefabricated in a county other than the county wherein the public works project is to be completed, the wage for the offsite prefabrication shall be the applicable prevailing wage for the county in which the actual prefabrication takes place.

It is the manufacturer of the prefabricated product to verify that the correct county wage rates are applied to work they perform.

See RCW [39.12.010](#)

(The definition of "locality" in RCW [39.12.010](#)(2) contains the phrase "wherein the physical work is being performed." The department interprets this phrase to mean the actual work site.

## **WSDOT's List of State Occupations not applicable to Heavy and Highway Construction Projects**

This project is subject to the state hourly minimum rates for wages and fringe benefits in the contract provisions, as provided by the state Department of Labor and Industries.

The following list of occupations, is comprised of those occupations that are not normally used in the construction of heavy and highway projects.

When considering job classifications for use and / or payment when bidding on, or building heavy and highway construction projects for, or administered by WSDOT, these Occupations will be excepted from the included "Washington State Prevailing Wage Rates For Public Work Contracts" documents.

- Building Service Employees
- Electrical Fixture Maintenance Workers
- Electricians - Motor Shop
- Heating Equipment Mechanics
- Industrial Engine and Machine Mechanics
- Industrial Power Vacuum Cleaners
- Inspection, Cleaning, Sealing of Water Systems by Remote Control
- Laborers - Underground Sewer & Water
- Machinists (Hydroelectric Site Work)
- Modular Buildings
- Playground & Park Equipment Installers
- Power Equipment Operators - Underground Sewer & Water
- Residential \*\*\* ALL ASSOCIATED RATES \*\*\*
- Sign Makers and Installers (Non-Electrical)
- Sign Makers and Installers (Electrical)
- Stage Rigging Mechanics (Non Structural)

The following occupations may be used only as outlined in the preceding text concerning "WSDOT's list for Suppliers - Manufacturers - Fabricators"

- Fabricated Precast Concrete Products
- Metal Fabrication (In Shop)

Definitions for the Scope of Work for prevailing wages may be found at the Washington State Department of Labor and Industries web site and in WAC Chapter 296-127.

**Washington State Department of Labor and Industries**  
**Policy Statements**  
**(Regarding Production and Delivery of Gravel, Concrete, Asphalt, etc.)**

**WAC 296-127-018 Agency filings affecting this section**

**Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials.**

(1) The materials covered under this section include but are not limited to: Sand, gravel, crushed rock, concrete, asphalt, or other similar materials.

(2) All workers, regardless of by whom employed, are subject to the provisions of chapter 39.12 RCW when they perform any or all of the following functions:

(a) They deliver or discharge any of the above-listed materials to a public works project site:

(i) At one or more point(s) directly upon the location where the material will be incorporated into the project; or

(ii) At multiple points at the project; or

(iii) Adjacent to the location and coordinated with the incorporation of those materials.

(b) They wait at or near a public works project site to perform any tasks subject to this section of the rule.

(c) They remove any materials from a public works construction site pursuant to contract requirements or specifications (e.g., excavated materials, materials from demolished structures, clean-up materials, etc.).

(d) They work in a materials production facility (e.g., batch plant, borrow pit, rock quarry, etc.,) which is established for a public works project for the specific, but not necessarily exclusive, purpose of supplying materials for the project.

(e) They deliver concrete to a public works site regardless of the method of incorporation.

(f) They assist or participate in the incorporation of any materials into the public works project.

(3) All travel time that relates to the work covered under subsection (2) of this section requires the payment of prevailing wages. Travel time includes time spent waiting to load, loading, transporting, waiting to unload, and delivering materials. Travel time would include all time spent in travel in support of a public works project whether the vehicle is empty or full. For example, travel time spent returning to a supply source to obtain another load of material for use on a public works site or returning to the public works site to obtain another load of excavated material is time spent in travel that is subject to prevailing wage. Travel to a supply source, including travel from a public works site, to obtain materials for use on a private project would not be travel subject to the prevailing wage.

(4) Workers are not subject to the provisions of chapter 39.12 RCW when they deliver materials to a stockpile.

(a) A "stockpile" is defined as materials delivered to a pile located away from the site of incorporation such that the stockpiled materials must be physically moved from the stockpile and transported to another location on the project site in order to be incorporated into the project.

(b) A stockpile does not include any of the functions described in subsection (2)(a) through (f) of this section; nor does a stockpile include materials delivered or distributed to multiple locations upon the project site; nor does a stockpile include materials dumped at the place of incorporation, or adjacent to the location and coordinated with the incorporation.

(5) The applicable prevailing wage rate shall be determined by the locality in which the work is performed. Workers subject to subsection (2)(d) of this section, who produce such materials at an off-site facility shall be paid the applicable prevailing wage rates for the county in which the off-site facility is located. Workers subject to subsection (2) of this section, who deliver such materials to a public works project site shall be paid the applicable prevailing wage rates for the county in which the public works project is located.

[Statutory Authority: Chapter 39.12 RCW, RCW 43.22.051 and 43.22.270. 08-24-101, § 296-127-018, filed 12/2/08, effective 1/2/09. Statutory Authority: Chapters 39.04 and 39.12 RCW and RCW 43.22.270. 92-01-104 and 92-08-101, § 296-127-018, filed 12/18/91 and 4/1/92, effective 8/31/92.]



# MEMORANDUM

Project No. AS210516D

January 30, 2025

**To:** Michele Filley, PE, Kitsap County Public Works

**From:**



**Kale Spina, EIT**  
Professional  
kale.spina@aspectconsulting.com



1/30/2025

**Andrew J. Holmson, PE (WA)**  
Principal Geotechnical Engineer  
andy.holmson@aspectconsulting.com

**Re: Bahia Vista Landslide Repair – Soldier Pile Wall Basis of Design**

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## Introduction

This technical memorandum summarizes the geotechnical engineering design recommendations of Aspect Consulting, a Geosyntec Company (Aspect) for the planned soldier pile wall along NE Bahia Vista Drive (Project), in Bremerton, Washington (Site). The Site location is shown on Figure 1.

## Background

In December 2022, a landslide occurred along the steep slope below the eastern edge of the NE Bahia Vista Drive roadway. The landslide area was approximately 30 feet wide and the headscarp of the landslide was approximately 40 feet east and 20 feet (vertically) below the edge of the NE Bahia Vista Drive roadway.

At the same time as the landslide occurrence, a series of fresh tension cracks and vertical offsets developed along the east side of the NE Bahia Vista Drive roadway. The area of the tension cracks and vertical offsets was about 75 feet long with the tension cracks ranging from 1 to 12 inches wide and vertical offsets ranging from a few inches to 18 inches.

Aspect previously issued a Geotechnical Engineering Evaluation report in October 2023 which includes results of our Site reconnaissance and subsurface investigations, assessment of the causes of pavement distress, and preliminary discussion of stabilization alternatives. Since then, Kitsap County Public Works (County) has elected to move forward with the soldier pile wall stabilization alternative. This memorandum presents the engineering design basis for the stabilizing soldier pile wall.

For a full description of the Site conditions, geologic setting, landslide hazards, and subsurface conditions, please refer to our previous report (Aspect, 2023).

## Updated Monitoring Data

Aspect completed monitoring of the Site groundwater conditions and inclinometers at AIC-01 and AIC-02 on April 8, 2024. The results of our monitoring are described below and included on Figures 3 through 6.

### Groundwater

We encountered saturated soils that indicate groundwater in AIC-01 at 15 feet bgs, and very moist soils in AIC-02 at 20 feet bgs. Weathered Pleistocene Continental Drift appears to create perched layers of groundwater above the very dense, fine-grained, unweathered Pleistocene Continental Drift. Lenses of sandy silt (ML) contain sand partings that allow groundwater to move through the subsurface.

We monitored groundwater conditions in AIC-01 and AIC-02 between February 2023 and April 2024. Groundwater measurements are summarized below in Table 1, and plotted on attached Figures 3 and 4. The groundwater levels appear to be moderately influenced by fluctuations in local precipitation.

**Table 1. Groundwater Measurements**

Location	Date Range of Measurements <sup>1</sup>	Range in Groundwater Depth (feet bgs) <sup>2</sup>	Range in Groundwater Elevation (feet NAVD88)
AIC-01	2/18/2023 – 4/8/2024	21.6 – 23.6	75.4 – 77.4
AIC-02	2/1/2023 – 6/25/2023	12.7 – 13.7	71.3 – 72.3

**Notes:**

1. The groundwater monitoring equipment in AIC-02 experienced a malfunction on 6/25/2023 and is no longer collecting accurate data.
2. bgs = below ground surface

### Inclinometer Data

We completed baseline readings of the inclinometers installed in AIC-01 and AIC-02 on March 1, 2023, then made follow-up readings on May 10, 2023, and April 8, 2024. The readings indicate up to 0.1 inches and up to 0.2 inches of movement have occurred at AIC-01 and AIC-02, respectively.<sup>1</sup> The movement appears to extend to a depth of 8 feet below ground surface in both inclinometer casings. The inclinometer plots are included as Figures 5 and 6.

## Soldier Pile Wall Design

Project plans include the construction of a soldier pile wall running along the downslope shoulder of NE Bahia Vista Drive to stabilize the roadway against further slope movement. The following

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<sup>1</sup> Slope Indicator Company of Mukilteo, Washington, indicates the accuracy of the inclinometer probe and casing system is plus or minus 0.3 inches per 100 feet of casing depth, or 0.15 inches per 50 feet of casing depth. This accuracy is valid when the casing is properly installed, and proper monitoring techniques are used.



sections present our design assumptions and the results of our design analyses for the soldier pile stabilization wall.

### ***Design Assumptions***

Based on the recently surveyed Site topography (County, 2024) and the subsurface conditions observed in the borings, we developed the following assumptions for the design of the soldier pile retaining wall:

- For analysis purposes, the wall will be designed as a cantilever soldier pile wall with a maximum exposed height of 8 feet. This exposed height accounts for the additional sloughing and loss of 8 feet of soil at the wall toe, as informed by the inclinometer monitoring plots.
- To establish the initial retained height, a minimum 4-foot-wide flat bench will be excavated at the toe of the wall.
- The wall will not be designed for seismic lateral earth pressures because it will be relatively short (maximum exposed height of less than 10 feet). However, the wall will be designed to satisfy requirements for global seismic slope stability.
- The wall is allowed to yield and can be designed for the “active” earth pressure condition.
- There is a 250 pounds per square foot (psf) traffic surcharge acting on top of the wall beginning right at the wall face and extending back toward the upslope side of the roadway. This accounts for routine vehicle traffic.
- The wall will be faced with permanent timber lagging. Gaps in the timber lagging will provide adequate drainage to prevent any build-up of unbalanced hydrostatic pressure behind the wall.
- Groundwater level is assumed to be 13 feet below the top of wall. This is consistent with the highest groundwater level observed in AIC-02. Although it is below the design groundwater table, due to its relative density and observed moisture contents in the samples retrieved during the soil borings, we have assumed that the unweathered glacial drift is unsaturated.

### ***Lateral Earth Pressures***

Using the design assumptions listed above and the stratigraphy observed in our borings, we developed lateral earth pressures shown on Figure 7 for the design of the cantilever soldier piles. The active earth pressure acts over the pile center-to-center spacing above the base of the wall and over the shaft diameter below the base of the wall. The allowable passive earth pressures include a factor of safety of 1.5 and act over two shaft diameters in the weathered glacial drift, and three shaft diameters in the unweathered glacial drift, or the pile center-to-center spacing, whichever is less. The allowable passive earth pressure accounts for the sloping ground surface in front of the wall.

The lateral earth pressures include surcharge loads from traffic anticipated on the roadway acting over the exposed height of the wall.

***Soldier Pile Spacing, Shaft Diameter, Section, and Length***

Using the lateral earth pressures shown on Figure 7, we evaluated a combination of soldier pile spacing and drilled shaft diameters to determine pile shape and embedment requirements using the Shoring Suite computer software program (CivilTech, 2020). Based on our analysis, we selected 25-foot-long W12x53 beams on 8-foot (maximum) center-to-center spacing and set in 24-inch diameter drilled shafts. The estimated pile head deflection is approximately 0.84 inch which is acceptable considering the wall will not support a structure.

The Shoring Suite outputs are provided in Appendix A.

***Timber Pile Lagging***

Based on the lateral earth pressures and guidance presented in the Federal Highway Administration (FHWA) Geotechnical Engineering Circular No. 4 (FHWA, 1999), 4-inch-thick (nominal) Hem-Fir No. 2 timber lagging will be adequate. This should meet requirements of section 9-09.2 of the WSDOT Standard Specifications (WSDOT, 2025).

***Drainage***

Hydrostatic pressure, if allowed to build up behind a retaining wall, acts as a destabilizing force on the wall face. To prevent this, we recommend that the backfill within 2 feet (minimum) of the wall be free-draining sand and gravel conforming to WSDOT Standard Specification 9-03.12(2) Gravel Backfill for Walls. This free-draining material will provide pathways for surface water to travel through to the face of the wall, where they will be released through horizontal gaps between the timber lagging boards. Permanent spacers should be incorporated between each row of timber lagging to ensure adequate drainage and prevent buildup of unbalanced hydrostatic pressures behind the wall.

***Global Stability***

We evaluated global stability of the slope pre- and post-stabilizing wall construction using the subsurface data collected at the Site and two-dimensional limit equilibrium methods within the software program Slide2 (Rocscience, 2022). We evaluated global stability under static and seismic conditions.

Based on our subsurface explorations, laboratory testing, and our geologic expertise, we designated the soil/material units and assigned the engineering parameters for our analyses, as shown in Table 2.

**Table 2. Summary of Soil Engineering  
Properties Used in Slope Stability Analyses**

Geologic Unit	Unit Weight (pcf)	Strength Parameters	
		Friction Angle (deg)	Cohesion (psf)
Fill	115	34	0
Colluvium	110	32	75
Weathered Pleistocene Continental Glacial Drift	110	28	25
Pleistocene Continental Glacial Drift	130	36	1000

**Notes:** pcf = pounds per cubic foot; psf = pounds per square foot; deg = degrees

To assess the seismic slope stability during an earthquake, we applied a horizontal pseudostatic coefficient of 0.27g (where g is gravity), which is equal to one-half of the peak acceleration (PGA) from an earthquake with a 5 percent probability of exceedance in 50 years (1,000-year return period). We chose this earthquake event based on guidance from the Washington State Department of Transportation (WSDOT) and the American Association of State Highway and Transportation Officials (AASHTO), which is routinely used for seismic evaluations of roadway and transportation projects in the region.

As part of our slope stability modeling, we also included a general traffic surcharge pressure equal to 250 psf to account for routine vehicular traffic.

We modeled the soldier piles as 25-foot-long W12x53 steel sections with an allowable shear strength of 80.44 kips.

The Slide2 program performs slope stability computations based on the modeled slope conditions and calculates a factor of safety against slope failure. A minimum factor of safety of 1.5 under static conditions and 1.1 under seismic conditions is considered acceptable by industry standards.

The results of our slope stability analyses indicate the slope is unstable in its current condition. The critical factors of safety for static and seismic conditions for the existing slope are 0.89 and 0.62, respectively. Following the proposed stabilizing wall, the global stability factor of safety under static and seismic conditions are 3.09 and 1.27, respectively.

The outputs of our global stability analyses are provided in Appendix B.

### ***Roadway Subgrade Improvements***

As part of the Project, the roadway will be re-constructed. Two areas have been identified for subgrade improvements. We recommend incorporating a geotextile for soil stabilization at the interface between the prepared roadway subgrade and pavement base course. The geotextile should

meet or exceed the requirements for a woven geotextile for soil stabilization as shown in Table 3 of Section 9-33 of the WSDOT Standard Specifications (2025).

## **Construction Recommendations**

Key construction considerations for this Project include soldier pile installation and temporary excavations. Our construction considerations are presented in the following sections.

Appropriate erosion control measures should be implemented prior to beginning earthwork activities in accordance with the local regulations. While not directly observed in significant quantities in our subsurface exploration, the presence of potential obstructions, such as small boulders, buried logs, or other debris, should be anticipated.

### ***Temporary Excavations***

Temporary excavations and slopes should not exceed the limits specified in the local, state, and federal regulations. The stability of temporary excavations and slopes shall be the responsibility of the contractor. The soils within the anticipated excavation depths classify as Type C soil in accordance with the Washington Administrative Code (WAC) 296-155 Part N (WSL, 2023).

Temporary excavations and slopes in Type C are anticipated to stand as steep as 1.5H:1V; however, the contractor should adjust the steepness based on actual soil conditions. Additionally, the presence of seepage or wet weather may require that slopes be flattened to remain stable.

We also recommend the following for temporary excavations and slopes:

- Surface water should be diverted away from slopes.
- Slopes should be protected using plastic sheeting, flash coating, or tarps to control erosion and stability, as necessary.
- The duration that excavations or slopes are open should be minimized.
- Equipment, and material stockpiles should not be allowed near the top of excavations or slopes.
- The conditions of the excavations and slopes should be periodically observed by a competent person who is a representative of the contractor to evaluate safety and stability.

### ***Soldier Piles***

We provide the following considerations and recommendations for the construction of the soldier pile wall:

- The Contractor should be prepared to encounter groundwater seepage in the soldier pile shafts. Accordingly, the contractor should be prepared to use temporary casing, drilling mud, or other methods to maintain an open hole and prevent caving of the shafts. If there is more than 6 inches of drilling mud/slurry or standing water in the shaft at the time of concrete placement, the concrete should be placed with a tremie pipe to displace the water/drilling mud/slurry.
- The bottom of the soldier pile shafts should be relatively undisturbed and clear of loose/slough soils and debris prior to placing the beams and filling the shafts with concrete.

- Sequential shafts shall not be drilled on the same working shift. During each working shift, every other shaft should be drilled, and the concrete should be placed and allowed to cure for at least 24 hours before adjacent shafts are drilled.
- Excavation for the installation of lagging should be accomplished in 4-foot (maximum) vertical lifts. When the first lift of lagging is complete, the contractor can continue with the excavation in 4-foot lifts until all required lagging has been installed. If caving soils are encountered during excavation for lagging, the contractor should be prepared to excavate and install the lagging in shorter lifts. All excavations should be supported by lagging the same working day.
- Backfill for the wall should consist of Gravel Backfill for Walls meeting the requirements of Section 9-03.12(2) of the WSDOT Standard Specifications (WSDOT, 2025) such that there will be no buildup of unbalanced hydrostatic pressures behind the wall. The backfill should be compacted in lifts of not more than 9 inches in thickness and compacted to at least 90 percent of the maximum dry density, as determined using test method ASTM International (ASTM) D1557 (Modified Proctor; ASTM, 2018).
- Permanent spacers should be incorporated between each row of timber lagging to ensure adequate drainage and prevent buildup of unbalanced hydrostatic pressures behind the wall.

### ***Wet Weather Construction***

The Site soils are moisture sensitive and may be difficult to handle, prepare, or compact with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Due to the sensitive nature of the slope, we recommend work be completed during the dry season between May and October to avoid prolonged wet weather conditions that could adversely impact construction of the Project and the stability of the slope during construction. Ideal timing for construction is during the time of year when the probability of prolonged rainfall is the lowest and groundwater levels are the lowest, typically late July through mid-October. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions, we provide the following recommendations:

- Earthwork should be performed in small areas to minimize exposure to wet weather. The size and type of construction equipment used may have to be limited to prevent soil disturbance.
- Local best management practices (BMPs) for erosion control should be strictly followed.

### ***Flexible Pavement Subgrade Preparation***

The existing pavement sections should be removed entirely where new pavement is planned. Below new pavements, we recommend the entire subgrade surface be compacted to a firm and unyielding condition with multiple passes of a vibratory roller. Any material with perceptible organics should be stripped and disposed of prior to compacting and preparing the subgrade.

Pavement subgrade preparation should be observed and evaluated by a representative of Aspect. Suitability of subgrade compaction should be determined under the proof-rolling load of heavy, fully loaded, rubber-tired construction equipment. It is important that any areas that exhibit excessive displacement, pumping, or moisture during the proof roll be identified and addressed.

The affected areas should be overexcavated to a suitable depth determined in the field and replaced with structural fill compacted to a minimum of 95 percent of the Modified Proctor maximum dry density (ASTM D1557). All areas that require additional treatment should be subjected to another proof roll and be firm and unyielding prior to continuing with construction of the pavement section.

### **Future Use**

The integrity and performance of the soldier pile retaining wall is partially dependent on the future use of the wall and surrounding area along with regular inspection and monitoring. Our recommendations for post-construction considerations are presented below.

### ***Non-Load-Bearing Zones and Surcharge Loads***

After construction, excessive loading of the area behind the wall, including any filling to raise the grade above the wall, should be avoided. In general, no heavy equipment or other loads significantly greater than typical traffic loading should be placed at the top of the wall or within an 8-foot upslope buffer zone from the wall. The maximum foreslope in front of the wall should be no greater than 34 degrees.

### ***Inspection and Maintenance***

Both the wall and slope below it should be inspected annually and following an earthquake or any apparent movement on the slope below the wall. If landslides or other soil movement have occurred on the slope below the wall, the base of the wall should be inspected to make sure that the lowest row of lagging boards have not been undermined. If this occurs, wood lagging may need to be added. If the exposed height of the wall exceeds about 8 feet, it should be evaluated, and supplemental tieback anchors may be required to provide additional lateral restraint for the wall system. No significant excavation should take place in front of the wall other than localized trenching for the installation of lagging.

### **References**

Aspect Consulting (Aspect), 2023, Geotechnical Engineering Report, NE Bahia Vista Drive Roadway Stabilization, Aspect Project No. 210516-D, dated August 17, 2023.

ASTM International (ASTM), 2018, 2018 Annual Book of ASTM Standards, West Conshohocken, Pennsylvania.

CivilTech, 2020, Shoring Suite Version 8.21, released 2020.

Federal Highway Administration (FHWA), 1999, Geotechnical Engineering Circular No. 4, 1999.

Kitsap County Public Works (County), 2024, Topographic Map Sheets 1 and 2, dated Oct 07, 2024.

Rocscience, 2022, Slide2, version 9.024.

Washington State Department of Transportation (WSDOT), 2025, Standard Specifications for Road, Bridge, and Municipal Construction, Publication M 41-10.

Washington State Legislature (WSL), 2023, Washington Administrative Code (WAC) Title 296-155-66403, Appendix B-Sloping and benching,

<https://app.leg.wa.gov/WAC/default.aspx?cite=296-155-66403&pdf=true>, certified on February 20, 2023.

## **Limitations**

Work for this project was performed for Kitsap County Public Works (Client), and this report was prepared consistent with recognized standards of professionals in the same locality and involving similar conditions, at the time the work was performed. No other warranty, expressed or implied, is made by Aspect Consulting (Aspect).

Recommendations presented herein are based on our interpretation of site conditions, geotechnical engineering calculations, and judgment in accordance with our mutually agreed-upon scope of work. Our recommendations are unique and specific to the project, site, and Client. Application of this report for any purpose other than the project should be done only after consultation with Aspect.

Variations may exist between the soil and groundwater conditions reported and those actually underlying the site. The nature and extent of such soil variations may change over time and may not be evident before construction begins. If any soil conditions are encountered at the site that are different from those described in this report, Aspect should be notified immediately to review the applicability of our recommendations.

Risks are inherent with any site involving slopes and no recommendations, geologic analysis, or engineering design can assure slope stability. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the client.

It is the Client's responsibility to see that all parties to this project, including the designer, contractor, subcontractors, and agents, are made aware of this report in its entirety. At the time of this report, design plans and construction methods have not been finalized, and the recommendations presented herein are based on preliminary project information. If project developments result in changes from the preliminary project information, Aspect should be contacted to determine if our recommendations contained in this report should be revised and/or expanded upon.

The scope of work does not include services related to construction safety precautions. Site safety is typically the responsibility of the contractor, and our recommendations are not intended to direct the contractor's site safety methods, techniques, sequences, or procedures. The scope of our work also does not include the assessment of environmental characteristics, particularly those involving potentially hazardous substances in soil or groundwater.

All reports prepared by Aspect for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect. Aspect's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

**Please refer to Appendix C titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.**

Kitsap County Public Works  
January 30, 2025

**MEMORANDUM**  
Project No. AS210516D

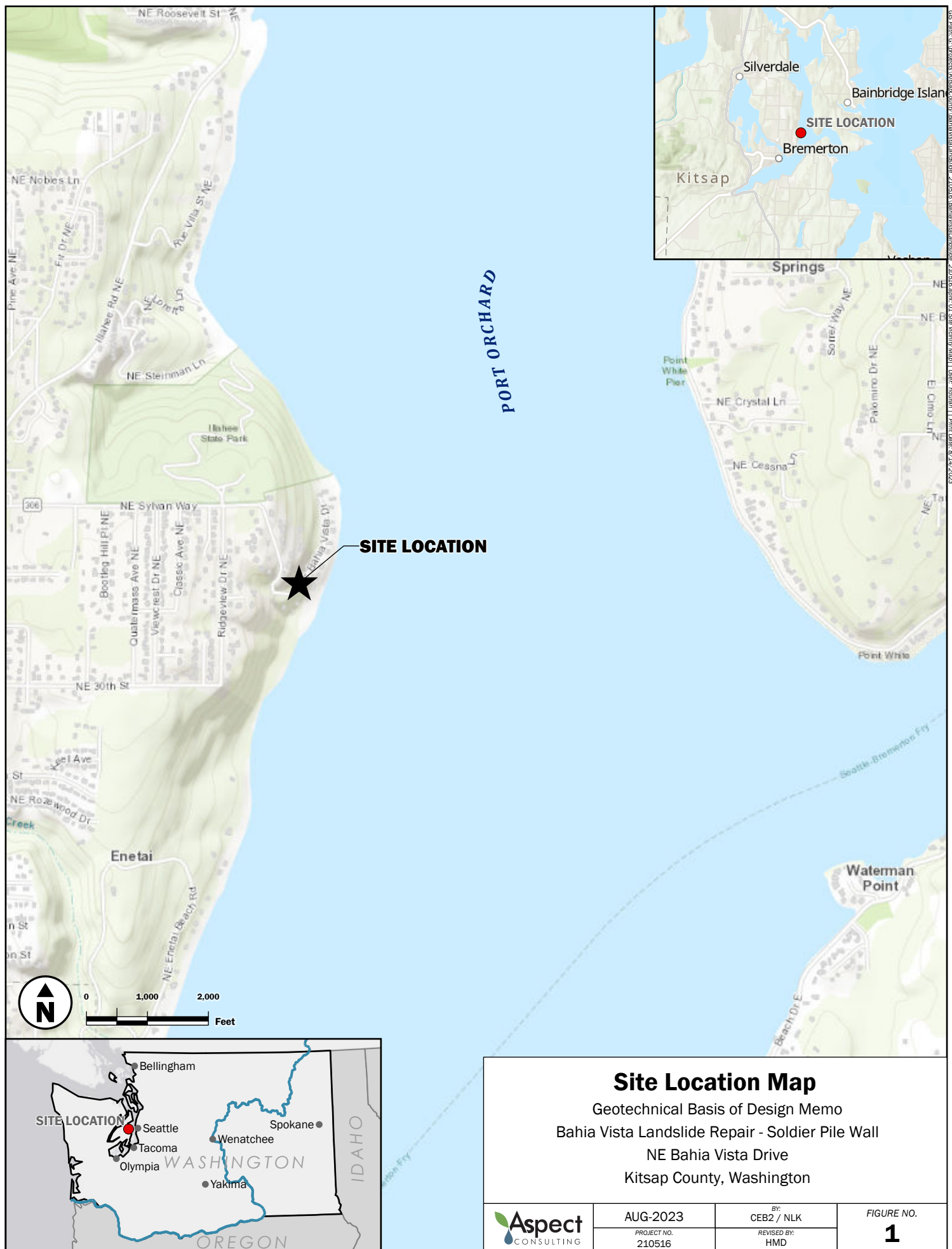
We appreciate the opportunity to perform these services. If you have any questions please call Andy Holmson, PE (WA), Principal Geotechnical Engineer at 971.865.5894.

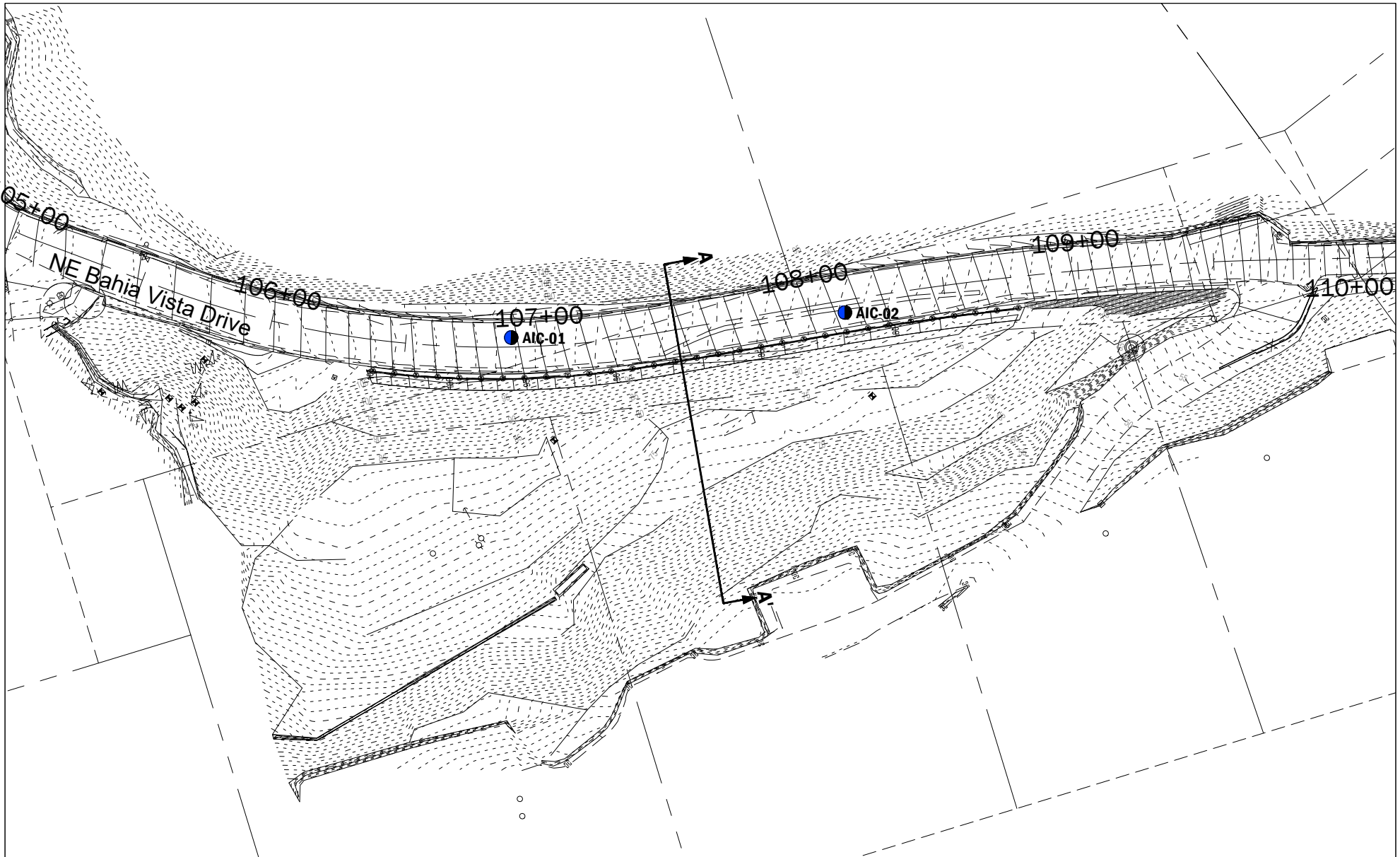
Attachments: Figure 1 – Site Location Map  
Figure 2 – Site and Exploration Map  
Figures 3 and 4 – Groundwater Monitoring Plots  
Figures 5 and 6 – Inclinator Plots  
Figure 7 – Earth Pressure Diagram  
Appendix A – Shoring Suite Output  
Appendix B – Global Stability Analysis Output  
Appendix C – Report Limitations and Guidelines for Use

V:\210516 Kitsap County On-Call Geotech Svcs 2022\Deliverables\Solier Pile Basis of Design Memo\Final\Bahia Vista Landslide Stabilization BOD Memo.docx



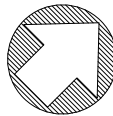
# FIGURES





### Legend

- Aspect Inclinometer (2024)
- Cross-Section Location



### Site and Exploration Map

Geotechnical Basis of Design Memo  
Bahia Vista Landslide Repair - Soldier Pile Wall  
NE Bahia Vista Drive  
Kitsap County, Washington



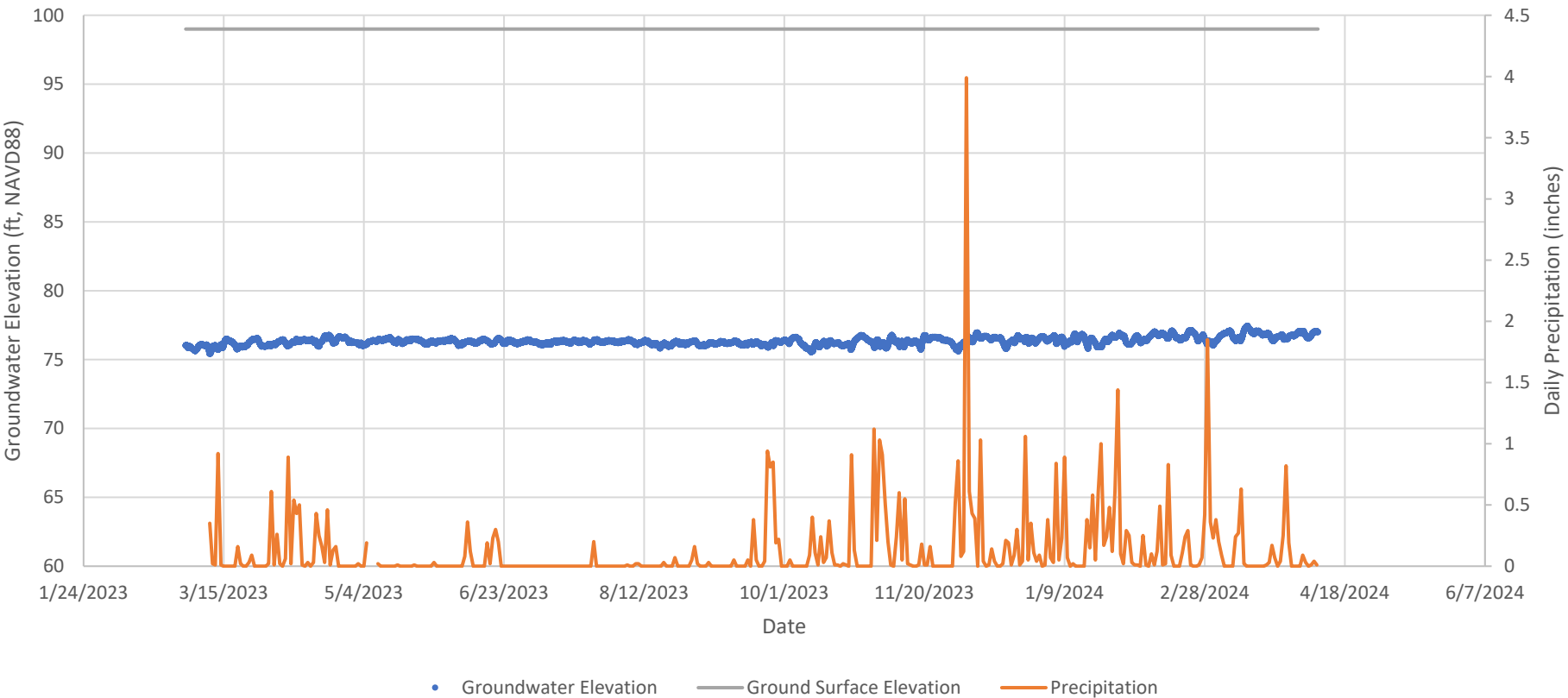
Nov-2024  
PROJECT NO.  
210516D

BY:  
KDS/JPR  
REVISED BY:  
-


FIGURE NO.

**2**

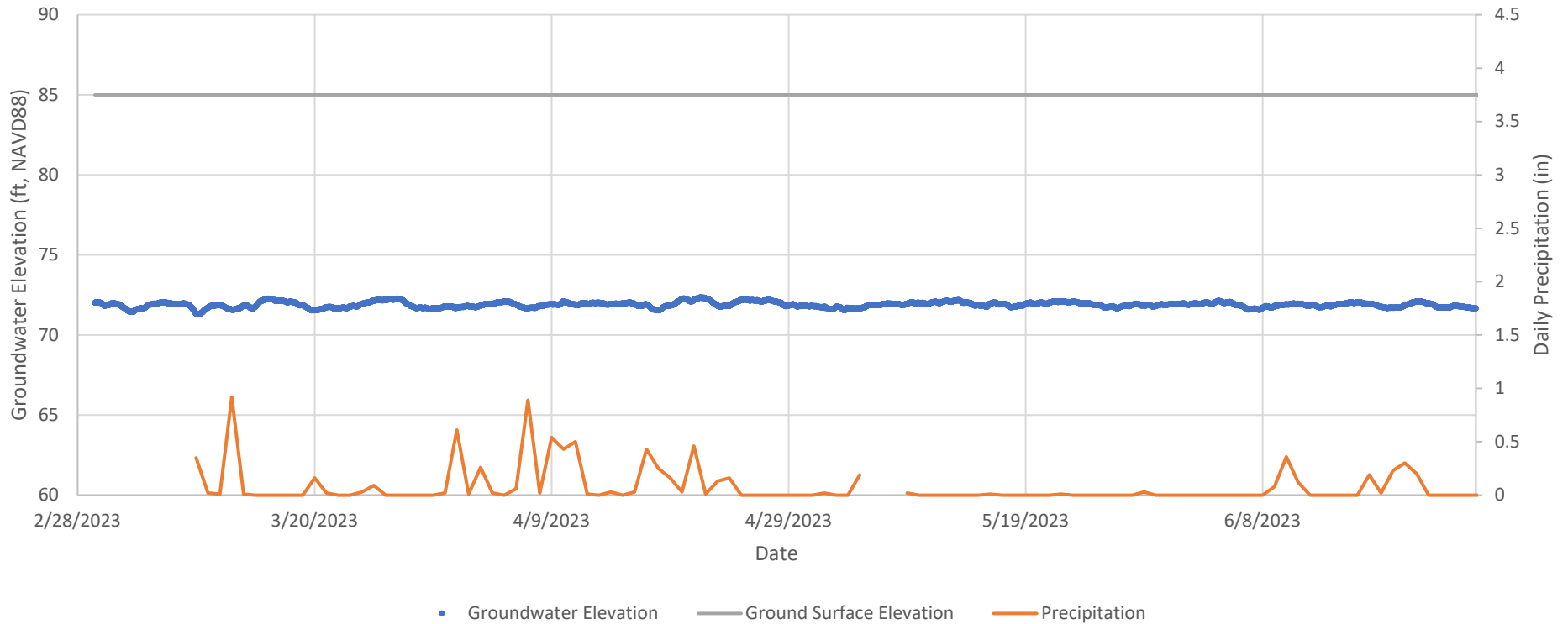
AIC-01 Groundwater Elevation



- Notes:**
- Groundwater data recorded every 15 minutes using a pressure transducer diver from 3/1/2023 to 4/8/2024.
  - Precipitation data from the National Oceanic and Atmospheric Administration (NOAA, 2024). No data available from 2/26/2023 to 4/2/2023.

<b>AIC-01 Groundwater</b> Geotechnical Basis of Design Memo Bahia Vista Landslide Repair - Soldier Pile Wall NE Bahia Vista Drive Kitsap County, Washington		
<b>Project No.:</b>	<b>Analysis By / Reviewed By:</b>	<b>Updated:</b>
210516-D	CB / MO	10/31/2024
		<b>Figure</b>  3

## AIC-02 Groundwater Elevation



### Notes:

1. Groundwater data recorded every 15 minutes using a pressure transducer diver from 3/1/2023 to 4/8/2024.
2. Precipitation data from the National Oceanic and Atmospheric Administration (NOAA, 2024). No data available from 2/26/2023 to 4/2/2023.
3. Groundwater diver malfunctioned after 6/25/2023. Readings following this timeframe are not accurate.

### AIC-02 Groundwater

Geotechnical Basis of Design Memo  
Bahia Vista Landslide Repair - Soldier Pile Wall  
NE Bahia Vista Drive  
Kitsap County, Washington

**Project No.:**

210516-D

**Analysis By /  
Reviewed By:**

CB / MO

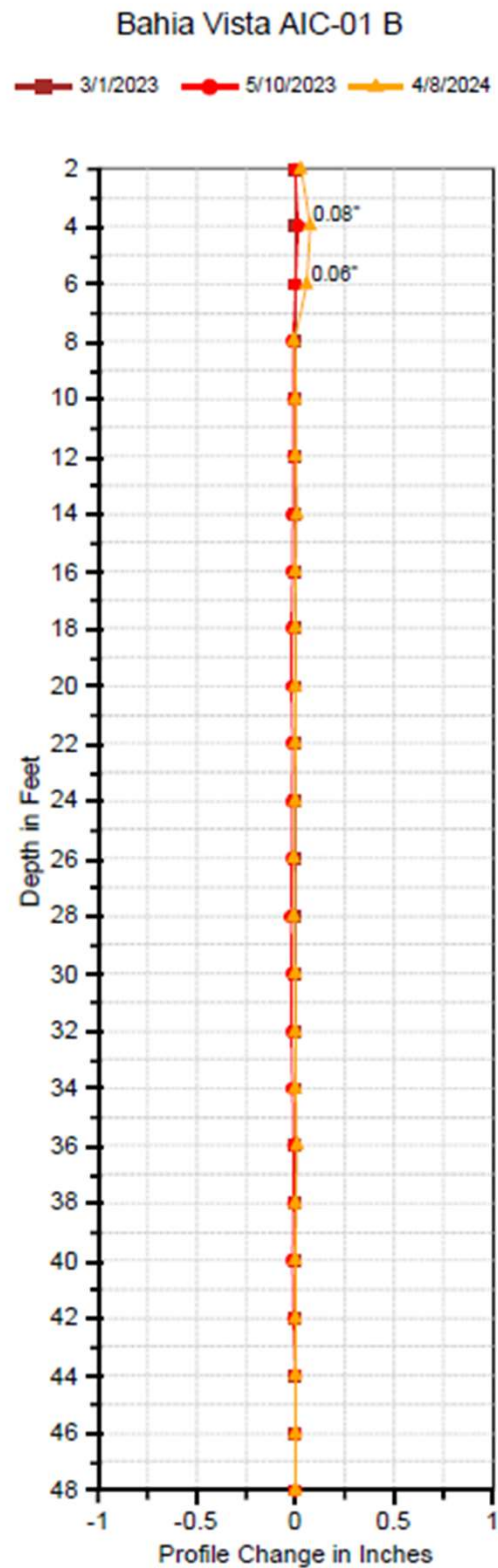
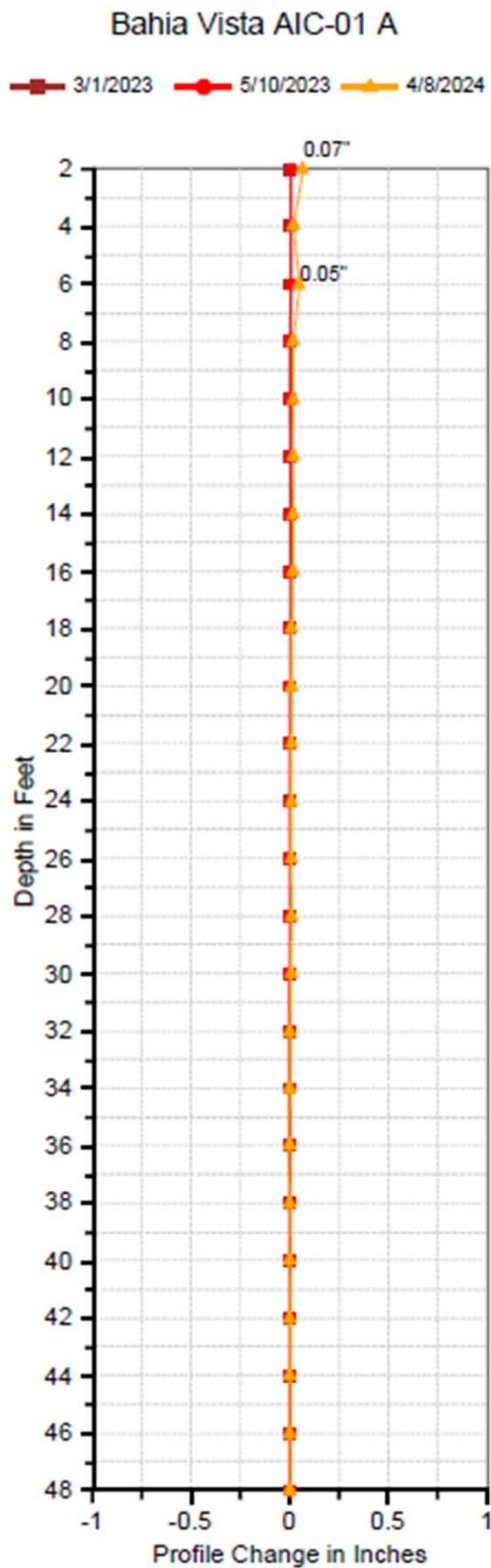
**Updated:**

10/31/2024



**Figure**

**4**



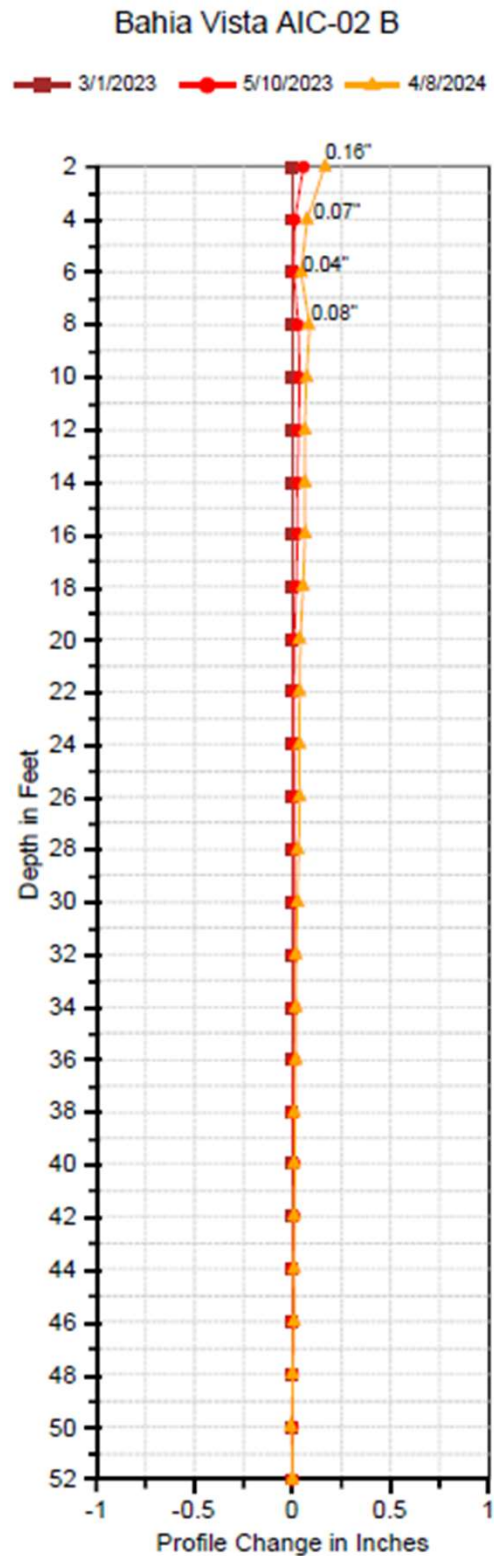
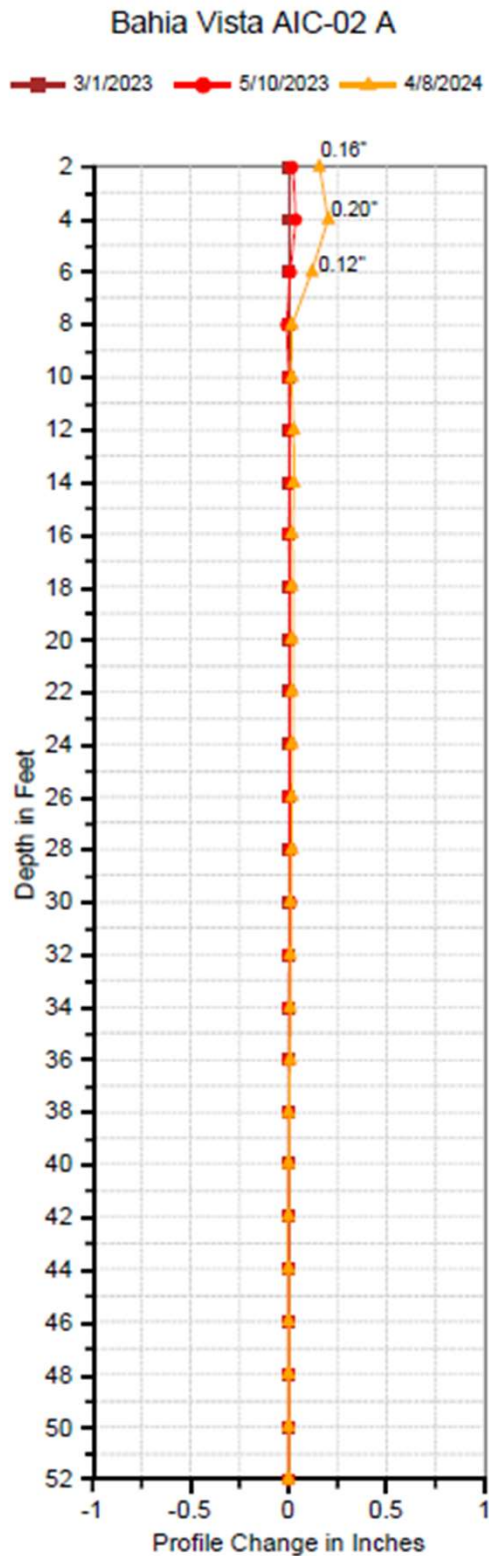
**Notes:**

1. "A" Plot is the primary direction of movement for the landslide.

## Inclinometer Monitoring Plot – AIC-01

Geotechnical Basis of Design Memo  
Bahia Vista Landslide Repair - Soldier Pile Wall  
NE Bahia Vista Drive  
Kitsap County, Washington





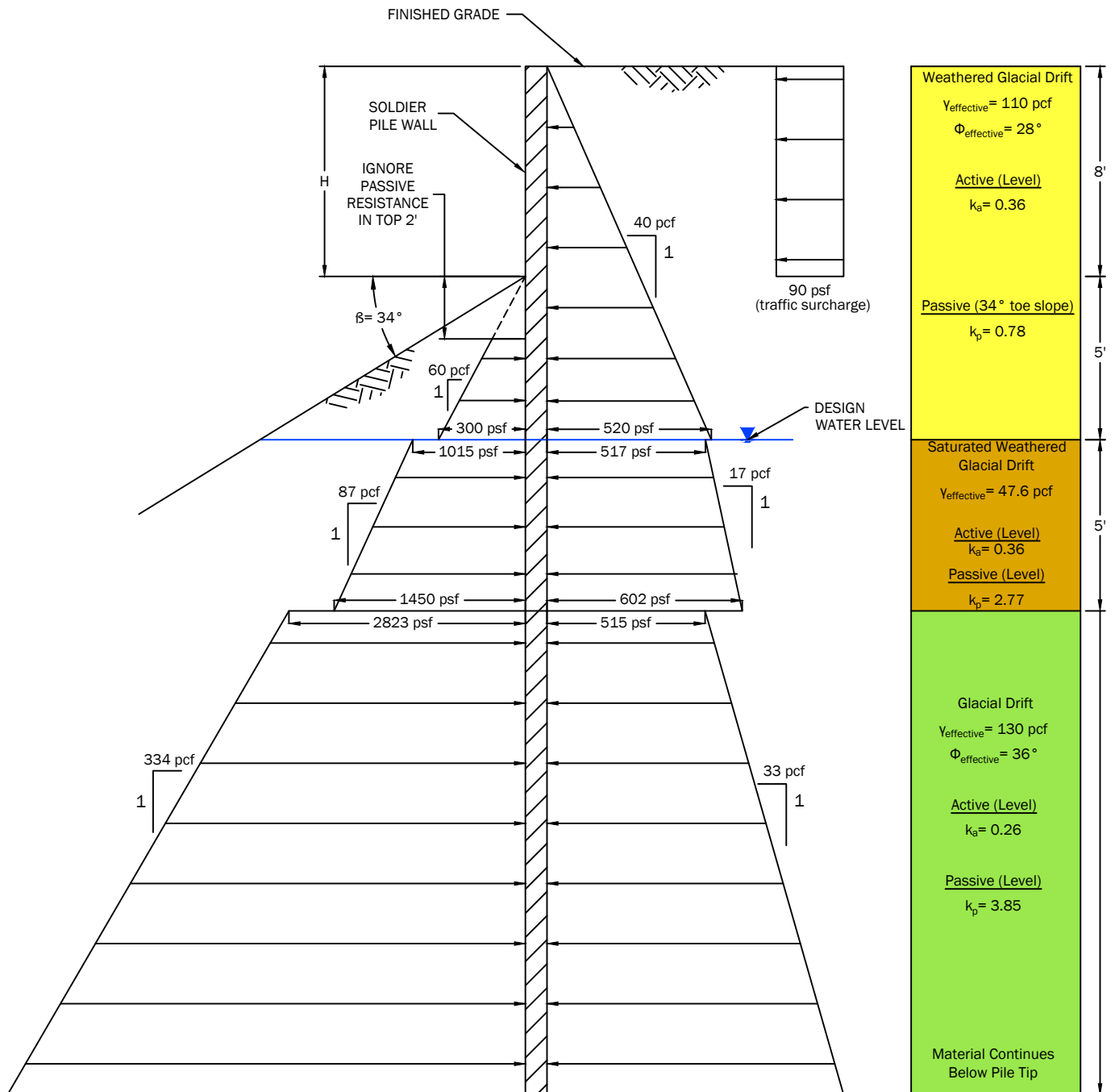
**Notes:**

1. "A" Plot is the primary direction of movement for the landslide.

## Inclinometer Monitoring Plot – AIC-02

Geotechnical Basis of Design Memo  
Bahia Vista Landslide Repair - Soldier Pile Wall  
NE Bahia Vista Drive  
Kitsap County, Washington

# CANTILEVERED SOLDIER PILE WALL



## NOTES:

1. Not to scale.
2. Passive earth pressures presented are allowable and include factor of safety of 1.5.
3. Conservatively assumes weathered glacial drift extends to ground surface instead of fill.
4. Active pressures act over the pile center-to-center spacing above the base of the wall and over the pile shaft diameter below the base of the wall. Passive pressure acts over 2 times the shaft diameter of the pile in the weathered glacial drift and 3 times in the glacial drift or the center-to-center pile spacing, whichever is less.
5. Assumes a scenario in which downslope material sloughs and erodes away creating 8 feet of exposed wall height.

## LEGEND:

$H$  = Total Excavation Height (Feet)

## Earth Pressure Diagram

Geotechnical Basis of Design Memo  
Bahia Vista Landslide Repair - Soldier Pile Wall  
NE Bahia Vista Drive  
Kitsap County, Washington



Nov-2024

PROJECT NO.  
210516D

BY:  
KDS/JPR

REVISED BY:  
-

FIGURE NO.

7



## **APPENDIX A**

### **Shoring Suite Output**

Coarse-Grained Soils - More than 50% <sup>1</sup> Retained on No. 200 Sieve	G Gravels - More than 50% <sup>1</sup> of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines	GW	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
				GP Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
	S Sands - 50% <sup>1</sup> or More of Coarse Fraction Passes No. 4 Sieve	≥15% Fines	GM	SILTY GRAVEL SILTY GRAVEL WITH SAND
				GC CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
	S Sands - 50% <sup>1</sup> or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines	SW	Well-graded SAND Well-graded SAND WITH GRAVEL
				SP Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
	S Sands - 50% <sup>1</sup> or More of Coarse Fraction Passes No. 4 Sieve	≥15% Fines	SM	SILTY SAND SILTY SAND WITH GRAVEL
				SC CLAYEY SAND CLAYEY SAND WITH GRAVEL
Fine-Grained Soils - 50% <sup>1</sup> or More Passes No. 200 Sieve	S Silts and Clays Liquid Limit Less than 50%		ML	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
				CL LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
	S Silts and Clays Liquid Limit 50% or More		OL	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
				MH ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
	S Silts and Clays Liquid Limit 50% or More		CH	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
				OH ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
Highly Organic Soils			PT	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

MC	=	Natural Moisture Content	GEOTECHNICAL LAB TESTS	
PS	=	Particle Size Distribution		
FC	=	Fines Content (% < 0.075 mm)		
GH	=	Hydrometer Test		
AL	=	Atterberg Limits		
C	=	Consolidation Test		
Str	=	Strength Test		
OC	=	Organic Content (% Loss by Ignition)		
Comp	=	Proctor Test		
K	=	Hydraulic Conductivity Test		
SG	=	Specific Gravity Test		
<u>Organic Chemicals</u>			CHEMICAL LAB TESTS	
BTEX	=	Benzene, Toluene, Ethylbenzene, Xylenes		
TPH-Dx	=	Diesel and Oil-Range Petroleum Hydrocarbons		
TPH-G	=	Gasoline-Range Petroleum Hydrocarbons		
VOCs	=	Volatile Organic Compounds		
SVOCs	=	Semi-Volatile Organic Compounds		
PAHs	=	Polycyclic Aromatic Hydrocarbon Compounds		
PCBs	=	Polychlorinated Biphenyls		
<u>Metals</u>				
RCRA8	=	As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)		
MTCAS	=	As, Cd, Cr, Hg, Pb (d = dissolved, t = total)		
PP-13	=	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)		
PID = Photoionization Detector			FIELD TESTS	
Sheen = Oil Sheen Test				
SPT <sup>2</sup> = Standard Penetration Test				
NSPT = Non-Standard Penetration Test				
DCPT = Dynamic Cone Penetration Test				
<u>Descriptive Term</u>			<u>Size Range and Sieve Number</u>	
Boulders =			Larger than 12 inches	
Cobbles =			3 inches to 12 inches	
Coarse Gravel =			3 inches to 3/4 inches	
Fine Gravel =			3/4 inches to No. 4 (4.75 mm)	
Coarse Sand =			No. 4 (4.75 mm) to No. 10 (2.00 mm)	
Medium Sand =			No. 10 (2.00 mm) to No. 40 (0.425 mm)	
Fine Sand =			No. 40 (0.425 mm) to No. 200 (0.075 mm)	
Silt and Clay =			Smaller than No. 200 (0.075 mm)	
<u>% by Weight</u>			<u>Modifier</u>	
<1 =			Subtrace	
1 to <5 =			Trace	
5 to 10 =			Few	
<u>% by Weight</u>			<u>Modifier</u>	
15 to 25 =			Little	
30 to 45 =			Some	
>50 =			Mostly	
Dry =			Absence of moisture, dusty, dry to the touch	
Slightly Moist =			Perceptible moisture	
Moist =			Damp but no visible water	
Very Moist =			Water visible but not free draining	
Wet =			Visible free water, usually from below water table	
<u>Non-Cohesive or Coarse-Grained Soils</u>			RELATIVE DENSITY	
<u>Density<sup>3</sup></u>			<u>SPT<sup>2</sup> Blows/Foot</u>	
Very Loose =			0 to 4	
Loose =			5 to 10	
Medium Dense =			11 to 30	
Dense =			31 to 50	
Very Dense =			> 50	
<u>Penetration with 1/2" Diameter Rod</u>				
			≥ 2'	
			1' to 2'	
			3" to 1'	
			1" to 3"	
			< 1"	
<u>Cohesive or Fine-Grained Soils</u>			CONSISTENCY	
<u>Consistency<sup>3</sup></u>			<u>SPT<sup>2</sup> Blows/Foot</u>	
Very Soft =			0 to 1	
Soft =			2 to 4	
Medium Stiff =			5 to 8	
Stiff =			9 to 15	
Very Stiff =			16 to 30	
Hard =			> 30	
Penetrated >1" easily by thumb. Extrudes between thumb & fingers.				
Penetrated 1/4" to 1" easily by thumb. Easily molded.				
Penetrated >1/4" with effort by thumb. Molded with strong pressure.				
Indented ~1/4" with effort by thumb.				
Indented easily by thumbnail.				
Indented with difficulty by thumbnail.				
GEOLOGIC CONTACTS				
Observed and Distinct			Observed and Gradual	
			Inferred	
Aspect CONSULTING			Exploration Log Key	



# Bahia Vista Roadway Stabilization - 210516

# Geotechnical Exploration Log

Project Address & Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

NE Bahia Vista Drive, West side of road, in right of way.

47.5932, -122.5939 (est)

**AIC-01**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Ecology Well Tag No.  
BPR 053

Cascade Drilling, LLC

CME75

Autohammer; 140 lb hammer; 30" drop

99' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

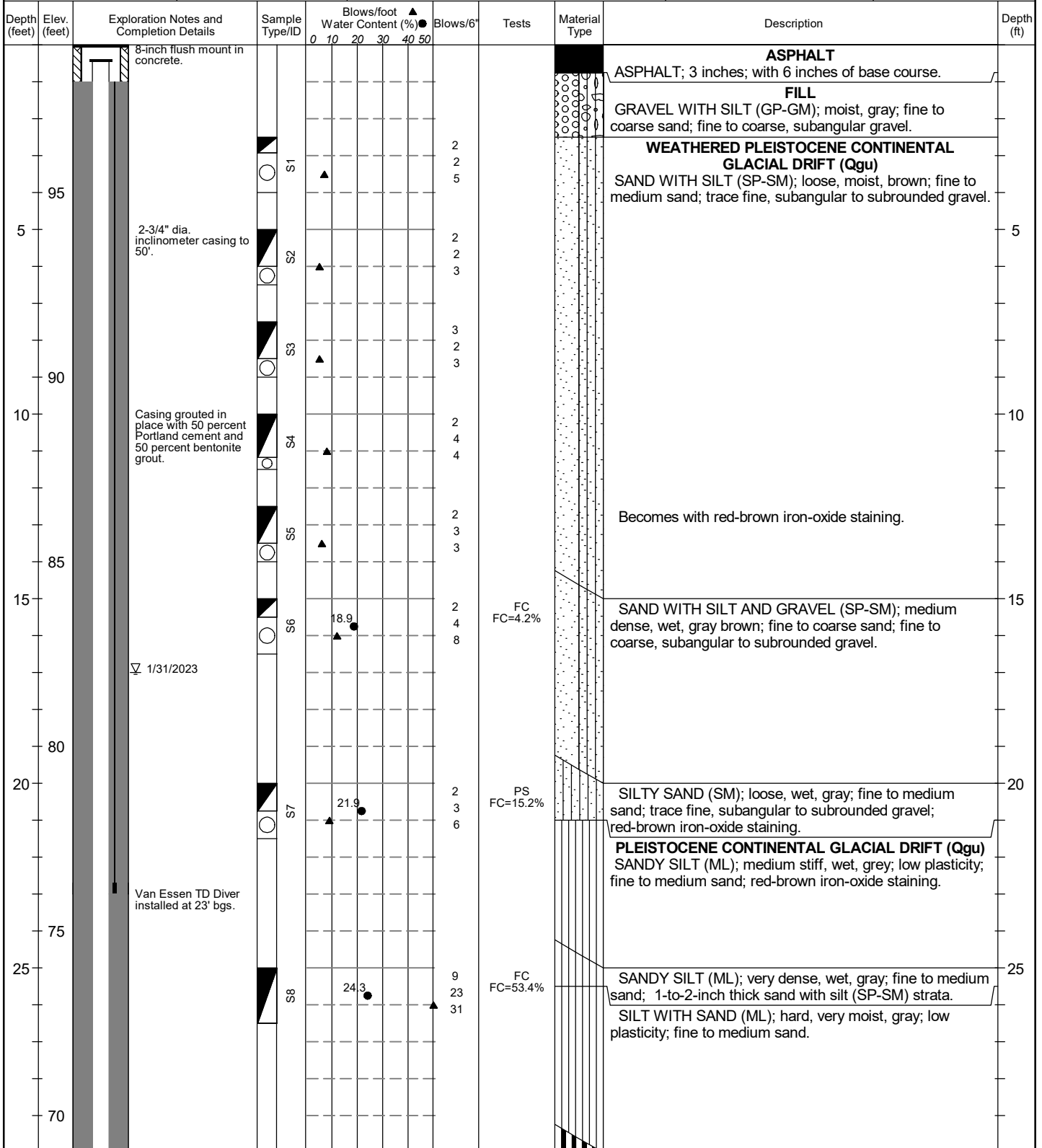
Depth to Water (Below GS)

Wesley Kennedy

2/17/2023

NA

17' (ATD)



## Legend

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)

Plastic Limit Liquid Limit


Water Level

See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH

**Exploration Log**  
**AIC-01**

Sheet 1 of 2

	<b>Bahia Vista Roadway Stabilization - 210516</b>				<b>Geotechnical Exploration Log</b>			
	Project Address & Site Specific Location NE Bahia Vista Drive, West side of road, in right of way.				Coordinates (Lat,Lon WGS84) 47.5932, -122.5939 (est)		Exploration Number <b>AIC-01</b>	
Contractor Cascade Drilling, LLC	Equipment CME75	Sampling Method Autohammer; 140 lb hammer; 30" drop		Ground Surface Elev. (NAVD88) 99' (est)		Ecology Well Tag No. BPR 053		
Operator Wesley Kennedy	Exploration Method(s) 8.5" OD X 4.25" ID Hollow-Stem Auger	Work Start/Completion Dates 2/17/2023		Top of Casing Elev. (NAVD88) NA		Depth to Water (Below GS) 17' (ATD)		

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot	Water Content (%)	Blows/6"	Tests	Material Type	Description	Depth (ft)
				0 10 20 30 40 50						
			S9			6 19 33			SILT (MH); hard, wet, gray; high plasticity; trace, fine to medium sand; 0.5-to-1-inch-thick fine to medium sand (SP) strata.	
65										
35			S10			23 50/6"			Blocky fracture observed; becomes moist.	35
60										
40			S11		29.7	17 19 20	AL LL=52% PL=29%			40
55										
45			S12			15 30 50/6"				45
50									SAND WITH SILT (SP-SM); very dense, moist, gray; fine to medium sand.	
50		Bottom cap	S13			12 23 34			Becomes with 2-inch sandy silt (ML) strata.	50
									Bottom of exploration at 51.5 ft. bgs.	
45										
55										55
40										

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\210516 BAHIA VISTA LANDSLIDE.GPJ October 31, 2024

Legend

No Soil Sample Recovery

Split Barrel 2" X 1.375" (SPT)

Water Level

Plastic Limit

Liquid Limit

Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: CB

Approved by: AJH

Exploration Log

AIC-01

Sheet 2 of 2



# Bahia Vista Roadway Stabilization - 210516

# Geotechnical Exploration Log

Project Address & Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

NE Bahia Vista Drive, East side of road, in right of way.

47.5934, -122.5936 (est)

**AIC-02**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Ecology Well Tag No.  
BPR 052

Cascade Drilling, LLC

CME75

Autohammer; 140 lb hammer; 30" drop

85' (est)

Operator

Exploration Method(s)  
6" OD X 2.25" ID Hollow  
Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

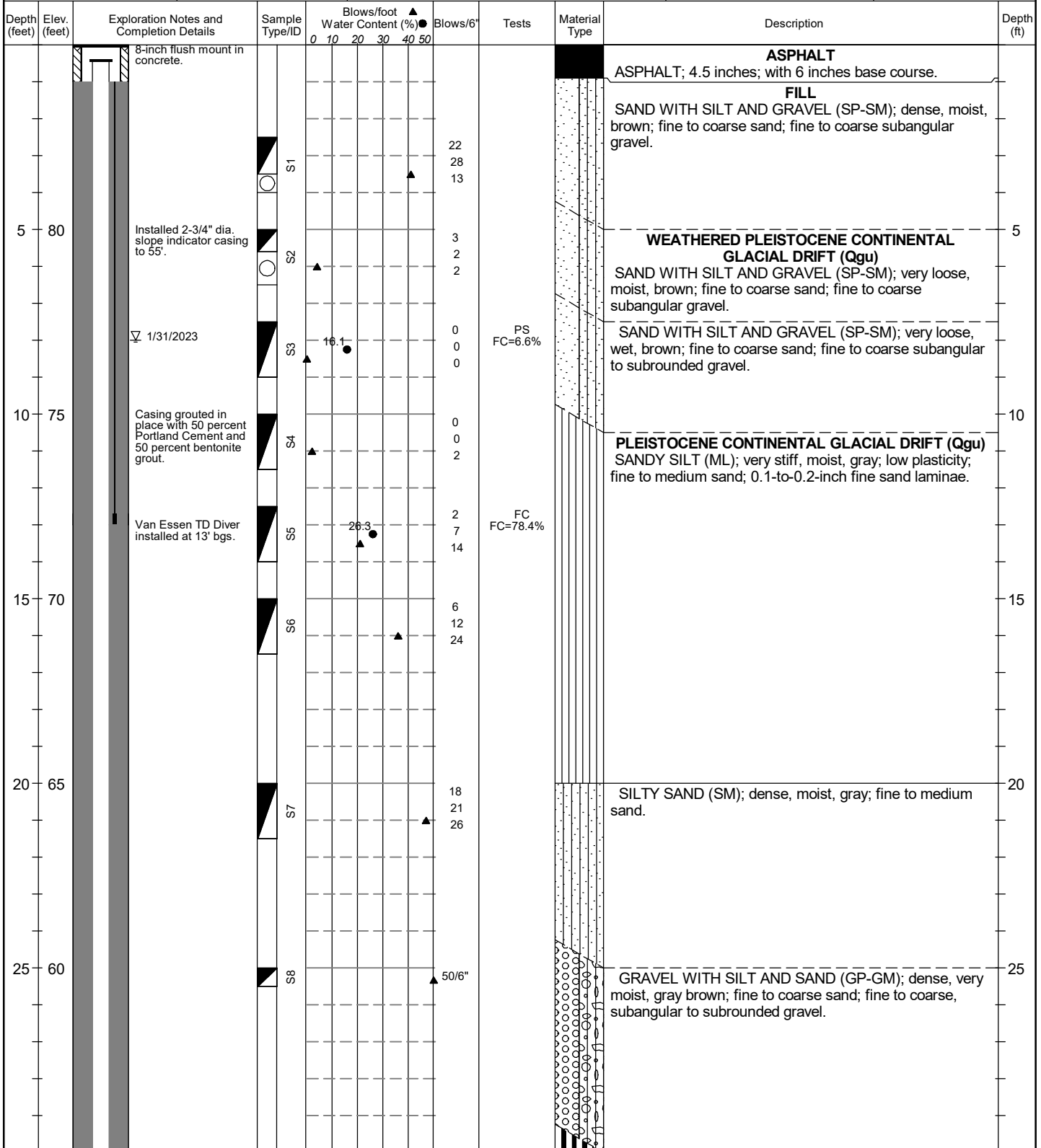
Depth to Water (Below GS)

Wesley Kennedy

1/31/2023

NA

8' (ATD)



## Legend

□ No Soil Sample Recovery

■ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

▽ Water Level ATD

Water Level


See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH

**Exploration Log**  
**AIC-02**

Sheet 1 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\210516 BAHIA VISTA LANDSLIDE.GPJ October 31, 2024

		<b>Bahia Vista Roadway Stabilization - 210516</b>				<b>Geotechnical Exploration Log</b>			
		Project Address & Site Specific Location NE Bahia Vista Drive, East side of road, in right of way.				Coordinates (Lat,Lon WGS84) 47.5934, -122.5936 (est)		Exploration Number <b>AIC-02</b>	
Contractor Cascade Drilling, LLC		Equipment CME75		Sampling Method Autohammer; 140 lb hammer; 30" drop		Ground Surface Elev. (NAVD88) 85' (est)		Ecology Well Tag No. BPR 052	
Operator Wesley Kennedy		Exploration Method(s) 6" OD X 2.25" ID Hollow Stem Auger		Work Start/Completion Dates 1/31/2023		Top of Casing Elev. (NAVD88) NA		Depth to Water (Below GS) 8' (ATD)	

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot Water Content (%)						Blows/6'	Tests	Material Type	Description	Depth (ft)
				0	10	20	30	40	50					
			S9							13 50/6"			SILT (MH); hard, moist, gray; high plasticity; trace, fine to medium sand.	
35	50		S10							20 21 27			Becomes with 0.2-to-0.5-inch fine to medium sand strata.	35
40	45		S11							15 24 30				40
45	40		S12							18 25 32			Blocky fracture observed from 45 to 45.3 feet bgs. Becomes with 1-to-3-inch fine to medium silty sand (SM) strata.	45
50	35		S13							18 34 42				50
55	30		S14							18 36 40				55
													Bottom of exploration at 56.5 ft. bgs.	

Legend

No Soil Sample Recovery

Split Barrel 2" X 1.375" (SPT)

Plastic Limit

Liquid Limit

Water Level

Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH

Exploration Log  
AIC-02

Sheet 2 of 2

## **APPENDIX B**

### **Global Stability Analysis Output**

UNITS: Width, Spacing, Diameter, Length, and Depth - ft; Force - kip; Moment - kip-ft  
Friction, Bearing, and Pressure - ksf; Pres. Slope - kip/ft<sup>3</sup>; Deflection - in



## **APPENDIX C**

### **Report Limitations and Guidelines for Use**

# REPORT LIMITATIONS AND GUIDELINES FOR USE

## Geoscience is Not Exact

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The geoscience practices (geotechnical engineering, geology, and environmental science) are far less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or property, you should contact Aspect Consulting (Aspect).

## This Report and Project-Specific Factors

---

Aspect's services are designed to meet the specific needs of our clients. Aspect has performed the services in general accordance with our agreement (the Agreement) with the Client (defined under the Limitations section of this project's work product). This report has been prepared for the exclusive use of the Client. This report should not be applied for any purpose or project except the purpose described in the Agreement.

Aspect considered many unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you;
- Not prepared for the specific purpose identified in the Agreement;
- Not prepared for the specific subject property assessed; or
- Completed before important changes occurred concerning the subject property, project, or governmental regulatory actions.

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

## Reliance Conditions for Third Parties

---

This report was prepared for the exclusive use of the Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual limitations. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with our Agreement with the Client and recognized geoscience practices in the same locality and involving similar conditions at the time this report was prepared.

## Property Conditions Change Over Time

---

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope instability, or groundwater fluctuations. If any of the described events may have occurred following the issuance

of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

## **Geotechnical, Geologic, and Environmental Reports Are Not Interchangeable**

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The equipment, techniques, and personnel used to perform a geotechnical or geologic study differ significantly from those used to perform an environmental study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions, or recommendations (e.g., about the likelihood of encountering underground storage tanks or regulated contaminants). Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

We appreciate the opportunity to perform these services. If you have any questions please contact the Aspect Project Manager for this project.



# GEOTECHNICAL ENGINEERING EVALUATION

## NE Bahia Vista Drive Roadway Stabilization

Prepared for: Kitsap County Department of Public  
Works

Project No. 210516-D • October 4, 2023 FINAL



e a r t h + w a t e r

# GEOTECHNICAL ENGINEERING EVALUATION

## NE Bahia Vista Drive Roadway Stabilization

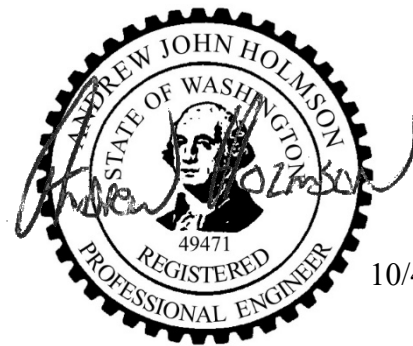
Prepared for: Kitsap County Public Works

Project No. 210516-D • October 4, 2023 FINAL

Aspect Consulting, LLC



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10/4/23

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# 1 Introduction

This report presents the results of Aspect Consulting, LLC's (Aspect) geotechnical investigation and roadway stabilization evaluation for the area of noted pavement distress along NE Bahia Vista Drive (Project), Bremerton, Washington (Site). The Site location is shown on Figure 1.

The Project includes investigating the subsurface conditions at the Site, assessing the cause(s) of pavement distress, and developing viable stabilization alternatives and preliminary geotechnical engineering recommendations.

## 1.1 Project Description and Background

---

In the early morning of December 30, 2022, a landslide occurred along the steep slope below the eastern edge of the NE Bahia Vista Drive roadway. The landslide area was approximately 30 feet wide and the headscarp of the landslide was approximately 40 feet east and 20 feet (vertically) below the edge of the NE Bahia Vista Drive roadway. Slide debris from the landslide was deposited across the private driveway serving the residences at 3737, 3739, 3743, and 3747 NE Bahia Vista Drive (County, 2023).

At the same time as the landslide occurrence, a series of fresh tension cracks and vertical offsets developed along the east side of the NE Bahia Vista Drive roadway in an area approximately 40 feet west and 20 feet (vertically) above the landslide area. The area of the tension cracks and vertical offsets was about 75 feet long with the tension cracks ranging from 1 to 12 inches wide and vertical offsets ranging from a few inches to 18 inches.

We understand this same part of NE Bahia Vista Drive has experienced similar damage/distress over multiple decades, typically manifesting with vertical settlement of the eastern half of the roadway. The most recent repair of the roadway occurred about 1.5 years ago and included minor grading to raise the eastern half of the roadway, constructing a raised edge along the east side of the pavement, and re-paving of the roadway.

The County requested that Aspect conduct a geotechnical engineering investigation of the roadway and underlying slope at the Site, instrumentation monitoring, and an evaluation to determine feasible slope stabilization alternatives at the Site with the goal of developing a plan to stabilize the roadway, improve roadway reliability, and reduce the frequency and cost of future maintenance activities.

Aspect's scope of work included field explorations, laboratory testing, geotechnical engineering analyses, stabilization alternatives evaluation, and preparation of this report. Our work was completed in general accordance with Task Authorization No. 4 of our On-Call Geotechnical Services contract (#KC-662-21), executed on January 10, 2022.

## 2 Site Conditions

The sections below describe the Site conditions gathered and inferred from our review of publicly available information (i.e., maps, photographs, etc.), our observations made during a Site reconnaissance on December 30, 2022, and the results of our subsurface explorations completed on January 31 and February 17, 2023, along with subsequent instrumentation monitoring. This information provides context for the observed roadway distress, discussion of types and distribution of geologic soil units, and a basis for our geotechnical engineering recommendations.

### 2.1 Surface Conditions

---

NE Bahia Vista Drive is an asphalt-paved, two-lane roadway that traverses a steep, east-facing, waterfront slope from the end of NE Sylvan Way to provide access to a series of private residences along the shoreline of Port Orchard and the Puget Sound. The roadway at the Site is approximately 18 feet wide and is oriented in a south to north direction with steep slopes on the west and east sides of the roadway. The right-of-way (ROW) appears to be about 40 feet wide at the Site.

The steep slope west of (above) the roadway is approximately 40 feet tall and inclined at about 40 degrees. The steep slope east of (below) the roadway is about 40 feet tall with inclinations ranging from 27 to 40 degrees, and terminates at a private access driveway for 3737, 3739, 3743, and 3747 NE Bahia Vista Drive. Approximately 20 feet below the edge of the roadway is a narrow topographic bench on the steep slope that is about 10 to 15 feet wide and appears to be an older pioneer roadway alignment or other access road. The existing Site conditions and topography are shown on Figure 2.

The area of the most recent tension cracks and vertical offsets was about 50 feet long with the tension cracks ranging from 1 to 12 inches wide and vertical offsets ranging from a few inches to 18 inches.

### 2.2 Geologic Setting

---

The Site is located within the Puget Lowland, a broad area of tectonic subsidence flanked by two mountain ranges: the Cascades to the east and the Olympics to the west. The sediments within the Puget Lowland are the result of repeated cycles of glacial and nonglacial deposition and erosion. The most recent cycle, the Vashon Stade of the Fraser Glaciation (about 13,000 to 16,000 years ago), is responsible for most of the present day geologic and topographic conditions. During the Vashon Stade, the 3,000-foot-thick Cordilleran Glacier advanced into the Puget Lowland.

As the Cordilleran Glacier advanced southward, lacustrine and fluvial sediments were deposited in front of the glacier. Preglacial and proglacial sediments were overridden and consolidated by the advancing glacier, creating dense and hard soil deposits. At the interface between the advance soils and the glacial ice, the Cordilleran Glacier sculpted and smoothed the surface, and then deposited a consolidated basal till. As the Cordilleran Glacier retreated northward from the Puget Lowland to British Columbia, it left an unconsolidated sediment veneer over glacially consolidated deposits.

The geologic map indicates that the Site is underlain by Quaternary (Pleistocene) Continental Glacial Drift (Qgu; DNR, 2005). Glacial drift is a general term for soils deposited during a glacial stade, which includes the outwash deposited during with glacial advancement, the till deposited under the advancing and retreating continental glacier, and the outwash deposited during glacial retreat.

### **2.2.1 Landslide Hazards**

Three types of landslides are common on steep slopes along the shoreline in the Puget Sound area: deep-seated rotational landslides, topples, and surficial landslides (also known as shallow flows or colluvial landslides; Varnes, 1978). Larger-scale, deep-seated rotational landslides consist of relatively deep failures that typically involve slip along a curved shear plane. Topple failures consist of a block or slab of soil moving away from the slope as a coherent unit. Shallow flow or surficial/debris landslides are smaller in scale but more common, and consist of a sliding of the weathered colluvium soil layer and overlying vegetation that typically mantles steep slopes. Shallow flows commonly result from a significant increase in the moisture content within the upper weathered soil layer on slopes. Landslides may be triggered by natural events, such as extended, heavy precipitation, freeze-thaw cycles, or an earthquake, or by manmade features, such as broken water pipes or improperly managed stormwater flow.

During our site visit, we observed evidence of past surficial landslide activity, including slumped material on the eastern hillslope and fallen vegetation. Groundwater seepage was noted on the steep slope below the roadway, creating areas of standing water and saturated soils that may trigger landslide activity. Based on our Site observations, subsurface investigation, and recent slide activity, the Site has a history and ongoing risk of surficial landslide activity, as is typical of steep shoreline slopes in the region.

Kitsap County Geologic Hazards Map shows the entire Site as a high erosion hazard area and portions of the Site above and below NE Bahia Vista Dr as a moderate landslide Hazard (County, 2019). The *Coastal Zone Atlas of Washington* maps the slope along the Site shoreline as “Unstable,” which indicates a risk of slope instability due to geology, groundwater, slope factors or erosional factors (Ecology, 1979). LiDAR mapping shows a mapped landslide approximately 700 feet north of the Site (McKenna et al., 2008). The geomorphic map indicates the Site is a hillslope surface, commonly steep surfaces that appear to be dominated by colluviation, debris-flow, shallow-landslide and other mass-movement processes (Haugerud, 2009). We reviewed aerial photographs (Google, 2023) and coastal aerial photographs (Ecology, 2020) of the Site local area from 1977 through 2016. The photos did not indicate significant landslide activity but do indicate highly variable vegetation patterns over the past several decades that could be associated with recurring concentrated erosion and/or surficial landslide activity.

## 2.3 Subsurface Conditions

---

We oversaw the drilling of two soil borings completed as monitoring stations, AIC-01 and AIC-02, to depths 51.5 and 56.5 feet below ground surface (bgs), respectively (Figure 2). Installation of inclinometer casing was completed to depths of 50 and 55 feet bgs in AIC-01 and AIC-02, respectively. Pressure transducers (Van Essen TD pressure transducers) were installed to monitor groundwater levels at depths of 23 and 13 feet bgs in AIC-01 and AIC-02, respectively. The exploration and instrumentation installation were logged and observed by a member of the Aspect geotechnical engineering staff.

Subsurface conditions at the Site were inferred from our observations during the field investigations and confirmed through a geologic review of the soil samples and geotechnical laboratory testing. A more detailed description of the field exploration methods and exploration logs are presented in Appendix A along with the laboratory data in Appendix B.

### 2.3.1 Stratigraphy

The primary stratigraphic units we observed at the Site, presented in order from top to bottom, were pavement, fill, weathered Pleistocene continental glacial drift, and unweathered Pleistocene continental glacial drift. These units are described in more detail below.

#### **Pavement**

We encountered road surfacing consisting of hot mix asphalt pavement over crushed aggregate base course in both soil borings. The thickness of the asphalt varied from between approximately 3 to 4.5 inches and the thickness of the aggregate base was approximately 6 inches.

#### **Fill**

Fill refers to human-placed material. Below the asphalt in AIC-01 we observed about 2.5 feet of loose, moist, gray gravel with silt (GP-GM)<sup>1</sup> that we interpret to be fill. In AIC-02 we encountered 5 feet of fill consisting of dense, moist, brown, sand with silt and gravel (SP-SM).

#### **Colluvium**

The slopes below the roadway were mantled with a variable-thickness layer of colluvium at the ground surface. Colluvium is derived from the weathering and erosion of the underlying Pleistocene Continental Glacial Drift that comprises the interior of the steep slope. Based on our reconnaissance, the observed topography, and regional experience, colluvium thickness across the majority of the slope below the roadway likely varies from 2 to 6 feet thick. The colluvium typically consists of loose, moist, brown, very silty sand (SM) with trace clay and scattered to abundant organics.

---

<sup>1</sup> Soils are classified per the United Soil Classification System (USCS) in general accordance with the ASTM International (ASTM) Method D2488 Standard Practice of Description and Identification of Soils.

### **Weathered Pleistocene Continental Glacial Drift**

Underlying the fill in both borings, we encountered very loose to medium dense, brown, sand with silt (SP-SM) in AIC-01 from 2.5 to 21 feet bgs, and in AIC-02 from 5 to 10.5 feet bgs. This unit contains areas with red-brown iron-oxide staining. We interpret this material to be weathered Pleistocene Continental Glacial drift, based on the relative density and staining.

### **Pleistocene Continental Glacial Drift**

In AIC-01 from 21 to 51.5 feet bgs, and in AIC-02 from 10.5 to 56.5 feet bgs, the Pleistocene continental glacial drift transitioned to increasingly dense/hard and unweathered soil consisting of dense to very dense or hard, low plasticity to high plasticity silt (ML to MH), sandy silt (ML), with zones of silty sand (SM) and gravel with silt and sand (GP-GM). At a depth of 45 feet bgs, we encountered a thin zone with blocky fractures that was approximately 3 to 4 inches thick.

## **2.3.2 Groundwater**

We encountered saturated soils that indicate groundwater in AIC-01 at 15 feet bgs, and very moist soils in AIC-02 at 20 feet bgs. Weathered Pleistocene Continental Drift appears to create perched layers of groundwater above the very dense, fine-grained, unweathered Pleistocene Continental Drift. Lenses of sandy silt (ML) contain sand partings that allow groundwater to move through the subsurface.

We monitored groundwater conditions in AIC-01 and AIC-02 between the end of February and mid-May, 2023. In AIC-01, the groundwater elevation fluctuated between 62.5 and 64 feet (NAVD 88), corresponding to depths of 22 to 24 feet below the roadway surface. In AIC-02, the groundwater elevation fluctuated between 60 and 61.5 feet (NAVD 88), corresponding to depths of 12.5 to 14 feet below the roadway surface. The groundwater fluctuations and trends are presented graphically in Appendix C.

We noted areas of groundwater seepage, standing water and saturated soils on the hillslope east of NE Bahia Vista Dr. Separate from groundwater, stormwater (sheet flow) on the roadway during high precipitation events traverses the hillslope, causing surface saturated conditions.

## **2.3.3 Inclinator Readings**

Aspect completed baseline readings of the inclinometers installed in AIC-01 and AIC-02 on March 1, 2023 and then made a follow-up reading near the end of the wet season on May 10, 2023. The readings indicate that there have been no casing deflections<sup>2</sup> occurring at the specific locations during the time monitored. The inclinometer plots are included in Appendix D.

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<sup>2</sup> Slope Indicator Company of Mukilteo, Washington, indicates the accuracy of the inclinometer probe and casing system is plus or minus 0.3 inches per 100 feet of casing depth, or 0.15 inches per 50 feet of casing depth. This accuracy is valid when the casing is properly installed, and proper monitoring techniques are used.

### 3 Slope Stability Analyses

To further understand the likely source(s) of pavement distress, the stability of the roadway embankment and slope, and to identify viable stabilization alternatives, we conducted a stability analysis of a critical section transecting the area of distress (Section A-A'; refer to Figure 2) using the two-dimensional limit equilibrium slope stability program Slide2 (Rocscience, 2022). The Slide program performs slope stability computations based on the modeled slope conditions and calculates a factor of safety (FS) against slope failure, which is defined as the ratio of resisting forces to driving forces. A FS of 1.0 indicates a “just-stable” condition, and a FS of less than one would indicate unstable conditions.

To set up our slope stability model, we used topography derived from LiDAR imagery and our field measurements of the roadway embankment and slopes along the critical section.

Based on our subsurface explorations, laboratory testing, and our geologic expertise, we designated the soil/material units and assigned the engineering parameters for our analyses, as shown in Table 1.

**Table 1. Summary of Soil Engineering Properties Used in Slope Stability Analyses**

Geologic Unit	Unit Weight (pcf)	Strength Parameters	
		Friction Angle (deg)	Cohesion (psf)
Fill	115	34	0
Colluvium	110	32	75
Weathered Pleistocene Continental Glacial Drift	110	28	25
Pleistocene Continental Glacial Drift	130	36	1000

**Notes:** pcf = pounds per cubic foot; psf = pounds per square foot; deg = degrees

The parameters were calibrated by modeling the observed conditions of the roadway and embankment, with potential failure surfaces extending through the area of road distress corresponding to a FS of approximately 1.1 during average groundwater conditions and a FS of less than 1.0 during high groundwater conditions (inferred by groundwater monitoring and depth of soil staining observed), which would indicate marginal stability and reflect the roadway distress that is apparent. The calibrated values are also consistent with parameters based on geologic and engineering knowledge and experience.

To assess the seismic slope stability during an earthquake, we applied a horizontal pseudostatic coefficient of 0.27g (where g is gravity), which is equal to one-half of the peak acceleration (PGA) from an earthquake with a 5 percent probability of exceedance in 50 years (1,000-year return period). We chose this earthquake event based on guidance

from the Washington State Department of Transportation (WSDOT) and the American Association of State Highway and Transportation Officials (AASHTO), which is routinely used for seismic evaluations of roadway and transportation projects in the region.

As part of our slope stability modeling, we also included a general traffic surcharge pressure equal to 250 psf to account for routine vehicular traffic.

## 4 Geotechnical Engineering Conclusions and Recommendations

This section presents our conclusions related to the likely cause(s) of the roadway distress observed along NE Bahia Vista Drive and recommended stabilization approach along with preliminary design parameters.

### 4.1 Landslide Mechanics

Based on our analysis and observations, it is our opinion that the distress observed along NE Bahia Vista Drive is caused by a combination of factors including the composition of the roadway fill, steepness of the roadway embankment, relatively loose conditions of the weathered Pleistocene Continental Glacial Drift underlying the roadway embankment, and the seasonal fluctuations of groundwater near the interface between the weathered and unweathered Pleistocene Continental Glacial Drift. During and following periods of roadway movement in the downslope direction, stormwater sheet flow from the roadway is directed towards and onto the embankment slope and steep slope below the roadway, further exacerbating the movement and erosion.

### 4.2 Slope Stability Results and Alternatives Comparison

We evaluated the stability of the existing roadway embankment as well as two stabilization alternatives: a soldier pile wall and a soil nail wall. Constructability of targeted dewatering strategies were discussed with the County and determined to either be infeasible, requiring construction easements, or including elevated risks of slope destabilization during construction; therefore, dewatering alternatives were not advanced beyond conceptual discussions. Table 2 shows the resulting FS for the two stabilization alternatives evaluated.

**Table 2. Summary of Slope Stability Results**

Scenario	Static Factor of Safety	Seismic Factor of Safety
Existing Conditions	0.82	0.65
Soldier Pile Wall Alternative	2.17	1.39
Soil Nail Wall Alternative	1.46	1.14

The results presented in Table 2 reflect failure surfaces intersecting the roadway and supporting embankment. Lower factors of safety were calculated for the surface of the steep slope below the roadway and embankment. The static factors of safety presented reflect the inferred high groundwater conditions while the seismic analyses considered the inferred average groundwater conditions since the likelihood of a strong earthquake coinciding with high groundwater conditions is relatively low.



For context, the WSDOT *Geotechnical Design Manual* (WSDOT, 2022) recommends a minimum static factor of safety for new roadway design and construction of 1.5 and minimum seismic factor of safety for new roadway design and construction of 1.1.

#### 4.2.1 Stabilization Alternatives

Based on the slope stability analysis, a cantilevered soldier pile wall or a soil nail wall with either shotcrete facing or a vegetated anchored mesh facing are feasible stabilization alternatives at the Site. Appendix E presents the graphical outputs from the slope stability analysis for the existing conditions, the soldier pile wall alternative, and the soil nail wall alternative for added context and illustration. Both stabilization alternatives will include elements extending into and gaining support from the underlying and relatively stable Pleistocene Continental Glacial Drift to provide a more reliable stabilization solution that meets industry standard factors of safety for roadway support. In our opinion, the soldier pile wall offers a more robust solution and the costs associated with longer soil nails needing to reach the Weathered Pleistocene Continental Glacial Drift make the two alternatives similar in cost (see Appendix F); therefore, we recommend a soldier pile wall solution be implemented to stabilize the roadway.

Preliminary design recommendations for both alternatives are provided in the following sections.

### 4.3 Soldier Pile Wall Design Recommendations

---

We recommend the soldier pile wall be installed on the east side of NE Bahia Vista Drive extending approximately 15 feet beyond the area of observed distress, conservatively 150 feet in total. The exact location and extents of the stabilization should be identified during final design and with the aid of a Site survey.

Due to the high relative density and gravel content of the Pleistocene Continental Glacial Drift, we recommend a drilled and cast-in-place soldier pile wall. The soldier pile wall should be designed to resist the lateral forces exerted by the retained soil and other surcharges imposed on the wall, such as a general traffic surcharge associated with NE Bahia Vista Drive. We do not recommend including seismic earth pressures in the design per the WSDOT *Geotechnical Design Manual* (WSDOT, 2022) unless the maximum height of the wall exceeds 10 feet. In our experience, assuming a long-term exposed height of 8 to 10 feet, the soldier pile wall may be cantilevered and does not require permanent ground anchors. The output of our preliminary soldier pile wall analysis is included in Appendix H.

Other specific recommendations for the design of the wall are as follows:

- Design should be done in accordance with current WSDOT and AASHTO Standards.
- Assume the top of the wall is allowed to yield at least approximately  $0.001H$  (where  $H$  is the retained height) invoking active earth pressure conditions.
- The use of free-draining lagging and wall facing is anticipated such that there will be no buildup of unbalanced hydrostatic pressures behind the wall.

- Backfill behind the wall will be flat.
- A maximum foreslope of 26.5 degrees in front of the wall.
- A vertical surcharge of 250 pounds per square foot (psf) will be exerted on the wall due to traffic associated with NE Bahia Vista Drive.
- For global stability and assuming a long-term exposed wall height of 8 to 10 feet, the soldier piles should be embedded at least 32 feet below the road grade with a maximum center-to-center spacing of 8 feet.
- We recommend excavating a level bench in front of the wall for a maximum initial exposed wall height of 4 feet. A temporary trench should be excavated to allow for installation of an additional 2 feet of lagging and then backfilled with structural fill.
- Structural fill in front of the wall and surfacing of the bench should consist of angular rock for drainage and erosion protection.
- The slope may continue to fail and slough in front of the wall, increasing the exposed height of the wall over time. Additional lagging can be added as needed up to the limits of the cantilevered design. If the exposed wall height exceeds the limits of the cantilevered design, additional wall support in the form of permanent ground anchors may be required.
- Since the soldier pile wall is a permanent system, the soldier piles should be painted for corrosion protection a minimum of 2 feet below the long-term exposed height. Corrosion protection of the piles should meet the requirements of Section 6-16.3(4) and 6-07 of the WSDOT Standard Specifications.
- An active earth pressure of 42 pcf should be used for design of the wall to a depth of 18 feet below the top of the wall. Below a depth of 18 feet below the top of the wall, an active earth pressure of 35 pcf may be used. The active earth pressures act over the full soldier pile spacing above the base of the wall and over the soldier pile diameter (B) below the base of the wall.
- An ultimate passive earth pressure of 120 pcf should be used for design of the wall to a depth of 18 feet below the top of the wall. Below a depth of 18 feet below the top of the wall, an ultimate passive earth pressure of 450 pcf may be used. A factor of safety of 1.5 should be applied to the passive earth pressures for design.
- The upper two feet of passive earth pressure should be neglected. The recommended passive earth pressure acts over the lesser of two times the soldier pile width (B) or the center-to-center pile spacing.

#### **4.3.1 Timber Lagging**

Permanent timber lagging should consist of Douglas fir-larch (grade No. 2 or better) meeting the requirements of Section 9-09.2 of the WSDOT Standard Specifications (WSDOT, 2023) and treated in accordance with Section 9-09.3(1). We recommend 4-inch-thick (rough cut) lagging for 8-foot-wide spans.

### 4.3.2 Soldier Pile Wall Backfill and Drainage

Backfill for the wall should consist of Gravel Backfill for Walls meeting the requirements of Section 9-03.12(2) of the WSDOT Standard Specifications (WSDOT, 2023) such that there will be no buildup of unbalanced hydrostatic pressures behind the wall. The backfill should be compacted in lifts of not more than 9 inches in thickness and compacted to at least 90 percent of the maximum dry density, as determined using test method ASTM International (ASTM) D1557 (Modified Proctor; ASTM, 2018). Permanent spacers should be incorporated between each row of timber lagging to ensure adequate drainage and prevent buildup of unbalanced hydrostatic pressures behind the wall.

## 4.4 Soil Nail Wall Design Recommendations

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If a soil nail wall is desired, our analyses indicate such a system can meet minimum factors of safety for stability. The facing of a soil nail wall may consist of shotcrete, vegetated anchored mesh, or a combination of the two options. We recommend soil nails and facing be designed in general accordance with the WSDOT GDM and Federal Highway Administration (FHWA) *Soil Nail Wall Reference Manual* (FHWA, 2015). The soil nail design should account for global stability, sliding, soil nail pullout, and bar tensile strength.

The shotcrete facing must be designed to account for facing flexure, punching shear, and nut-and-washer plate failure. Permanent drainage should be incorporated into the wall design and we recommend composite drain mats behind the shotcrete facing.

A vegetated anchored mesh system consists of high-strength steel-wire mesh that is pre-stressed to stabilize the embankment/slope and will help prevent raveling, spalling, and sloughing. The system consists of closely spaced soil nails that are grouted into drilled holes in the slope face to reinforce the slope soils and provide secure anchorage for the steel-wire mesh. Shorter boundary soil nails are used to secure boundary ropes along the perimeter of the system. A steel-wire mesh is then placed flush against the ground surface, secured to the soil nails, and pretensioned to provide active restraint to the exposed surficial soils. Turf reinforcement mats (TRM) or erosion control blankets (ECB) are typically installed under the steel-wire mesh to provide short- to long-term erosion control on the slope. Over time, vegetation can grow in through the mesh facing and provide additional long-term erosion control on the slope. To promote vegetation growth, the slope should be seeded prior to placing the TRM/ECBs and steel-wire mesh.

Dimensioning and sizing of vegetated anchored mesh system components (TECCO mesh, bearing spike, and soil nails) should be accomplished using the online Geobruigg dimensioning software tool, RUVOLUM (Geobruigg, 2020) or similar analyses. Through analysis of the pretensioning force on the system and anticipated lateral earth and seismic pressures acting on the system, the minimum soil nail sizes, maximum soil nail spacing, and minimum soil nail lengths can be determined and compared to the soil nail requirements for global stability.

In order to meet global stability requirements, the soil nail wall face should be battered a minimum of 5 degrees from vertical (more batter may be required for a vegetated anchored mesh facing). The soil nails should be a minimum length to achieve suitable embedment into the Pleistocene Continental Glacial Drift; we estimate this will require

soil nail lengths ranging from 15 to 30 feet. The nails should have a maximum spacing of 6 feet and minimum spacing of 6 feet in the horizontal and vertical directions with a minimum inclination of 15 degrees below horizontal. We recommend the following design parameters for the residual soil to be used for the soil nail wall design.

**Fill and Weathered Pleistocene Continental Glacial Drift**

- Friction angle: 30 degrees
- Moist Unit Weight: 110 pounds per cubic foot (pcf)
- Nominal Bond Strength: 1,200 pounds per square foot (psf)

**Pleistocene Continental Glacial Drift**

- Friction angle: 36 degrees
- Moist Unit Weight: 130 pounds per cubic foot (pcf)
- Nominal Bond Strength: 2,500 pounds per square foot (psf)

The recommended nominal bond strength assumes small diameter (4 to 6-inch), straight-shaft, gravity grouted soil nails. For a vegetated anchored mesh system, we recommend ignoring the outer 2 feet of the soil nail lengths for any contributions to bond strength. The actual bond (adhesion) between the soil nail and the surrounding soil can vary significantly with the contractor's method of installation and must be verified by load testing. Soil nails should include corrosion protection (epoxy coating or similar) or be oversized to include sacrificial steel accounting for long-term corrosion.

## **4.5 Stormwater Control Considerations**

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While the stabilization alternatives will not add significant impervious area or other stormwater generation to the area, stormwater control along the roadway is still an important factor in the performance of the roadway and stabilization alternatives.

As part of the Project, we recommend the roadway be fine graded to control and direct sheet flow to appropriate outlets. An existing catch basin exists within the roadway downslope of the area of stabilization. The outer (eastern) edge of the roadway should be slightly elevated to help prevent sheet flow from discharging directly onto the roadway embankment or steep slope below the roadway, and the roadway surface should be fine-graded and paved to direct stormwater to the existing catch basin and/or a shallow ditch along the inner (western) edge of the roadway. Establishment of a ditch would require frequent maintenance to ensure the ditch remained clear of debris, erosion, and sloughing from the slope above the roadway.

## 5 Recommendations for Continuing Geotechnical Services

Throughout this report, we have provided recommendations where we consider it would be appropriate for Aspect to provide additional geotechnical input to the design and construction process. Additional recommendations are summarized in this section.

### 5.1 Additional Design and Consultation Services

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Aspect is available to perform the detailed design for the preferred stabilization alternative and develop the plans for incorporation into the Project construction documents. At a minimum, we recommend that we review the geotechnical elements of the project to see that the geotechnical engineering recommendations are properly interpreted and incorporated.

The monitoring stations at AIC-01 and AIC-02 are still active and may be read to inform updated groundwater levels and/or to assess future slope movement and roadway distress. Aspect can assist with the monitoring upon request.

### 5.2 Additional Construction Services

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We are available to provide geotechnical engineering and monitoring services during construction. The integrity of the geotechnical elements depends on proper Site preparation and construction procedures. In addition, engineering decisions may have to be made in the field in the event that variations in subsurface conditions become apparent.

During the construction phase of the Project, we recommend that Aspect be retained to perform the following tasks:

- Kickoff meeting with the Contractor
- Review applicable submittals
- Special inspections of the pile installation, lagging installation, soil nail installation, drainage elements, and any structural fill placement activity.
- Address other geotechnical engineering considerations that may arise during construction

## 6 References

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- Washington State Department of Transportation (WSDOT), 2023, Standard Specifications for Road, Bridge, and Municipal Construction, Publication M 41-10.

## 7 Limitations

Work for this project was performed for Kitsap County Public Works (Client), and this report was prepared consistent with recognized standards of professionals in the same locality and involving similar conditions, at the time the work was performed. No other warranty, expressed or implied, is made by Aspect Consulting, LLC (Aspect).

Recommendations presented herein are based on our interpretation of site conditions, geotechnical engineering calculations, and judgment in accordance with our mutually agreed-upon scope of work. Our recommendations are unique and specific to the project, site, and Client. Application of this report for any purpose other than the project should be done only after consultation with Aspect.

Variations may exist between the soil and groundwater conditions reported and those actually underlying the site. The nature and extent of such soil variations may change over time and may not be evident before construction begins. If any soil conditions are encountered at the site that are different from those described in this report, Aspect should be notified immediately to review the applicability of our recommendations.

Risks are inherent with any site involving slopes and no recommendations, geologic analysis, or engineering design can assure slope stability. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the Client.

It is the Client's responsibility to see that all parties to this project, including the designer, contractor, subcontractors, and agents, are made aware of this report in its entirety. At the time of this report, design plans and construction methods have not been finalized, and the recommendations presented herein are based on preliminary project information. If project developments result in changes from the preliminary project information, Aspect should be contacted to determine if our recommendations contained in this report should be revised and/or expanded upon.

The scope of work does not include services related to construction safety precautions. Site safety is typically the responsibility of the contractor, and our recommendations are not intended to direct the contractor's site safety methods, techniques, sequences, or procedures. The scope of our work also does not include the assessment of environmental characteristics, particularly those involving potentially hazardous substances in soil or groundwater.

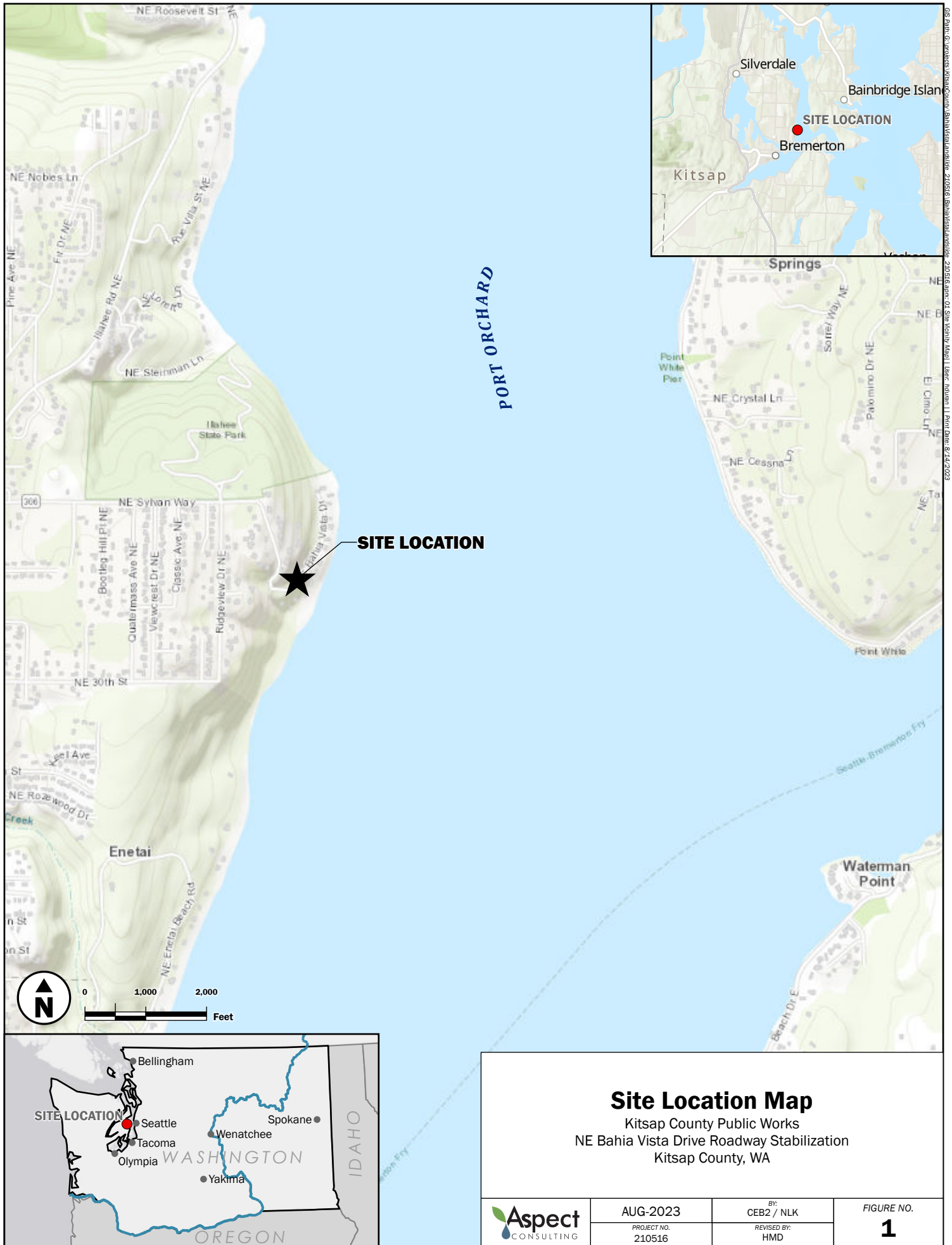
All reports prepared by Aspect for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect. Aspect's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

**Please refer to Appendix G titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.**

We appreciate the opportunity to perform these services. If you have any questions please contact Andrew Holmson, Senior Associate Geotechnical Engineer.

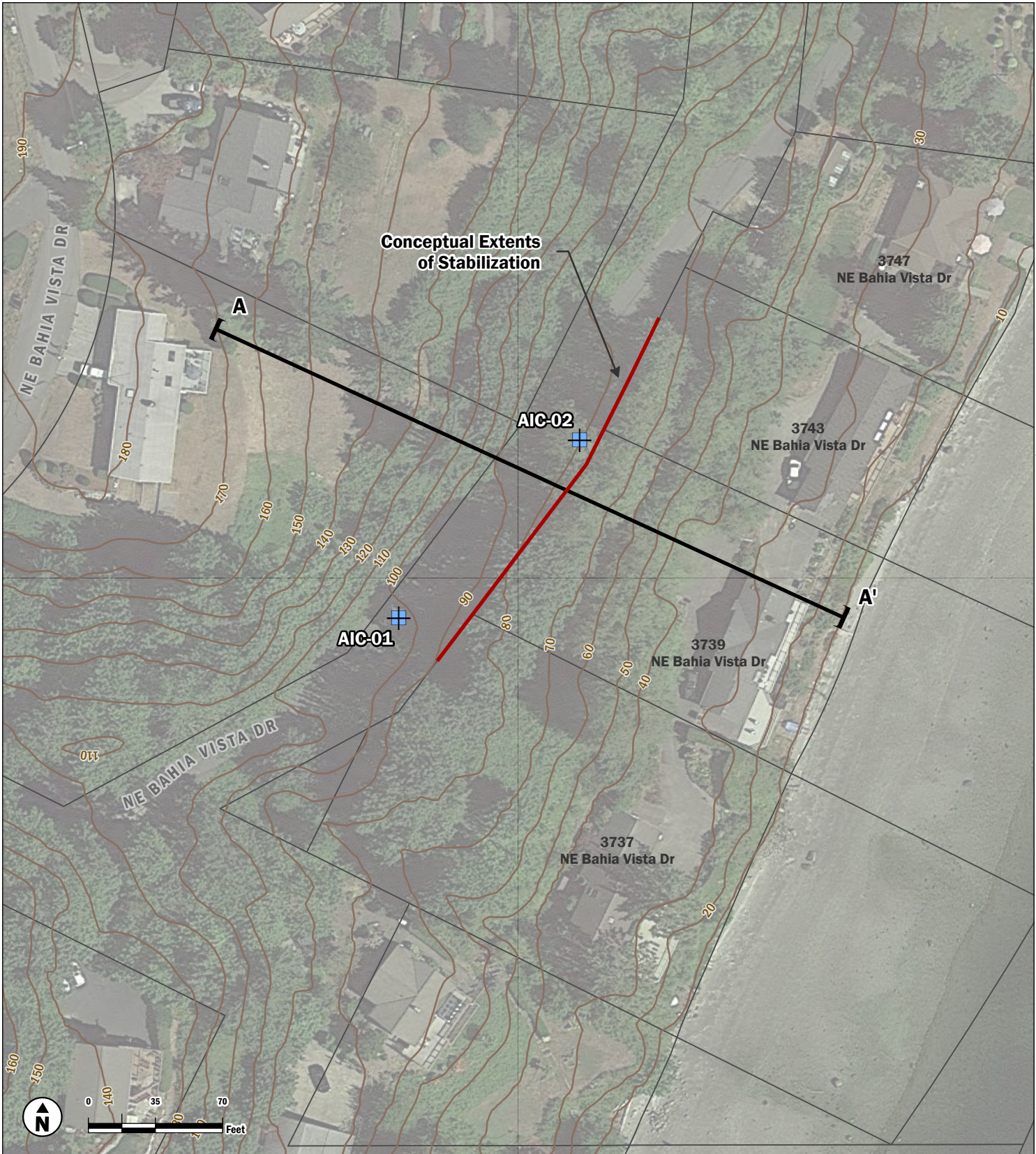
# FIGURES









Data source credits: None | Basemap Service Layer Credits: County of Kitsap, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDO, Esri, GIGAR, USGS, County of Kitsap, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, HERE, Garmin, USGS, EPA, NPS






Aspect Proj. G, updates Kitsap County Bahia Vista landslide, 210516 Bahia Vista landslide, 210516 June 11 AM 1983 2011 StreetView Washington North FIPS 4601 F US 11 Date Saved: 8/14/2023 11:00:00 AM 8/14/2023 14:01 by mduan

-  Exploration Location
-  Cross Section A-A'
-  10-ft Topography Contour
-  Kitsap County Parcel

## Site and Exploration Map

Kitsap County Public Works  
NE Bahia Vista Drive Roadway Stabilization  
Kitsap County, WA

	AUG-2023	BY: CEB2 / NLK	FIGURE NO. <b>2</b>
	PROJECT NO. 210516	REVISED BY: HMD	

## **APPENDIX A**

### **Subsurface Exploration Logs**

## A. Subsurface Exploration Program

Aspect's field exploration program consisted of 2 machine-drilled soil borings. Locations for each exploration are shown on Figure 2. Exploration logs of the borings are presented in this Appendix.

An Aspect engineer was present throughout the field exploration program to observe and direct the explorations, collect soil samples, and prepare descriptive logs of each exploration. Soils were classified in general accordance with ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). The stratigraphic contacts shown on the exploration logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The subsurface conditions depicted are only for the specific date and location reported; and therefore, are not necessarily representative of other locations and times.

### A.1. Drilled Soil Borings

Geotechnical borings AIC-01 and AIC-02 were advanced on February 17 and January 31, respectively, by Cascade Drilling, LLC. Both borings were advanced with hollow-stem auger methods from truck- and track-mounted CME75 drill rigs. The hollow-stem auger method consisted of advancing a continuous string of 5-foot-long, open-flight augers and a conical hollow-auger head. A center plug is seated inside of the conical hollow auger head to ensure maximum soil removal. The augers return soil cuttings to the surface between the annular space between the drill stem and the boring wall, leaving the hollow stem free from soil.

Sampling was completed using Standard Penetration Tests. The SPT method involves driving a 2-inch-outside-diameter split-barrel sampler a distance of 18 inches into the soil with a 140-pound hammer free falling from a distance of 30 inches. The number of blows for each 6 inch interval is recorded and the number of blows required to drive the sampler the final 12 inches is known as the SPT ("N") or blow count. The resistance, or N-value, provides a measure of the relative density of granular soils or the relative consistency of cohesive soils.

Both borings were completed as monitoring stations with slope inclinometer casings and pressure transducers. Samples were obtained every 2.5 or 5 feet using the Standard Penetration Test (SPT) in general accordance with ASTM International (ASTM Method D1586).

### A.2. Monitoring Stations

Following completion of borings, AIC-01 and AIC-02, slope inclinometer casings were installed to approximately the bottom of each borehole. The inclinometer casing consisted of a 2.75-inch-outside diameter ABS pipe with a pair of orthogonal slots, or grooves, which permit a calibrated instrument probe to be lowered to the bottom of the pipe. When the ground surrounding the inclinometer casing moves, the casing will distort

within the zone of movement allowing the instrument probe to record the deflections and distortion.

Van Essen TD pressure transducers were also secured to each inclinometer casing to measure and monitor groundwater levels. During installation of the inclinometer casings, the transducers were attached to the casings at a predetermined location to be installed below the observed groundwater level. The transducers and cables were secured to the inclinometer casings using fiberglass tape.

Following installation of the inclinometer casings and the transducers, the casings were tightly capped, and the annular space between the casings and borehole walls was filled by pumping a cement-bentonite grout into the boreholes. A metal monument rated for traffic loading with a flush mount lid was installed to protect the top of the inclinometers. The transducers were programmed to record groundwater level measurements every 6 hours.



Coarse-Grained Soils - More than 50% <sup>1</sup> Retained on No. 200 Sieve					
	Sands - 50% <sup>1</sup> or More of Coarse Fraction Passes No. 4 Sieve	Gravels - More than 50% <sup>1</sup> of Coarse Fraction Retained on No. 4 Sieve			
		≤5% Fines	≥15% Fines		
Fine-Grained Soils - 50% <sup>1</sup> or More Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50%			<b>GW</b>	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
				<b>GP</b>	Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
				<b>GM</b>	SILTY GRAVEL SILTY GRAVEL WITH SAND
				<b>GC</b>	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
				<b>SW</b>	Well-graded SAND Well-graded SAND WITH GRAVEL
	Silts and Clays Liquid Limit 50% or More			<b>SP</b>	Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
				<b>SM</b>	SILTY SAND SILTY SAND WITH GRAVEL
				<b>SC</b>	CLAYEY SAND CLAYEY SAND WITH GRAVEL
				<b>ML</b>	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
				<b>CL</b>	LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
Highly Organic Soils				<b>OL</b>	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
				<b>MH</b>	ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
				<b>CH</b>	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
				<b>OH</b>	ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
				<b>PT</b>	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

MC	=	Natural Moisture Content	GEOTECHNICAL LAB TESTS	
PS	=	Particle Size Distribution		
FC	=	Fines Content (% < 0.075 mm)		
GH	=	Hydrometer Test		
AL	=	Atterberg Limits		
C	=	Consolidation Test		
Str	=	Strength Test		
OC	=	Organic Content (% Loss by Ignition)		
Comp	=	Proctor Test		
K	=	Hydraulic Conductivity Test		
SG	=	Specific Gravity Test		
<u>Organic Chemicals</u>			CHEMICAL LAB TESTS	
BTEX	=	Benzene, Toluene, Ethylbenzene, Xylenes		
TPH-Dx	=	Diesel and Oil-Range Petroleum Hydrocarbons		
TPH-G	=	Gasoline-Range Petroleum Hydrocarbons		
VOCs	=	Volatile Organic Compounds		
SVOCs	=	Semi-Volatile Organic Compounds		
PAHs	=	Polycyclic Aromatic Hydrocarbon Compounds		
PCBs	=	Polychlorinated Biphenyls		
<u>Metals</u>				
RCRA8	=	As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)		
MTCAS	=	As, Cd, Cr, Hg, Pb (d = dissolved, t = total)		
PP-13	=	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)		
PID = Photoionization Detector			FIELD TESTS	
Sheen = Oil Sheen Test				
SPT <sup>2</sup> = Standard Penetration Test				
NSPT = Non-Standard Penetration Test				
DCPT = Dynamic Cone Penetration Test				
<u>Descriptive Term</u>			<u>Size Range and Sieve Number</u>	
Boulders =			Larger than 12 inches	
Cobbles =			3 inches to 12 inches	
Coarse Gravel =			3 inches to 3/4 inches	
Fine Gravel =			3/4 inches to No. 4 (4.75 mm)	
Coarse Sand =			No. 4 (4.75 mm) to No. 10 (2.00 mm)	
Medium Sand =			No. 10 (2.00 mm) to No. 40 (0.425 mm)	
Fine Sand =			No. 40 (0.425 mm) to No. 200 (0.075 mm)	
Silt and Clay =			Smaller than No. 200 (0.075 mm)	
<u>% by Weight</u>			<u>Modifier</u>	
<1 =			Subtrace	
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<1 =			Subtrace	
1 to <5 =			Trace	
5 to 10 =			Few	
<u>% by Weight</u>			<u>Modifier</u>	
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<1 =			Subtrace	
1 to <5 =			Trace	
5 to 10 =			Few	
<u>% by Weight</u>			<u>Modifier</u>	
15 to 25 =			Little	
30 to 45 =				

**Bahia Vista Roadway Stabilization - 210516****Geotechnical Exploration Log**

Project Address &amp; Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

NE Bahia Vista Drive, West side of road, in right of way.

47.5932, -122.5939 (est)

**AIC-01**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Ecology Well Tag No.  
BPR 053

Cascade Drilling, LLC

CME75

Autohammer; 140 lb hammer; 30" drop

86' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

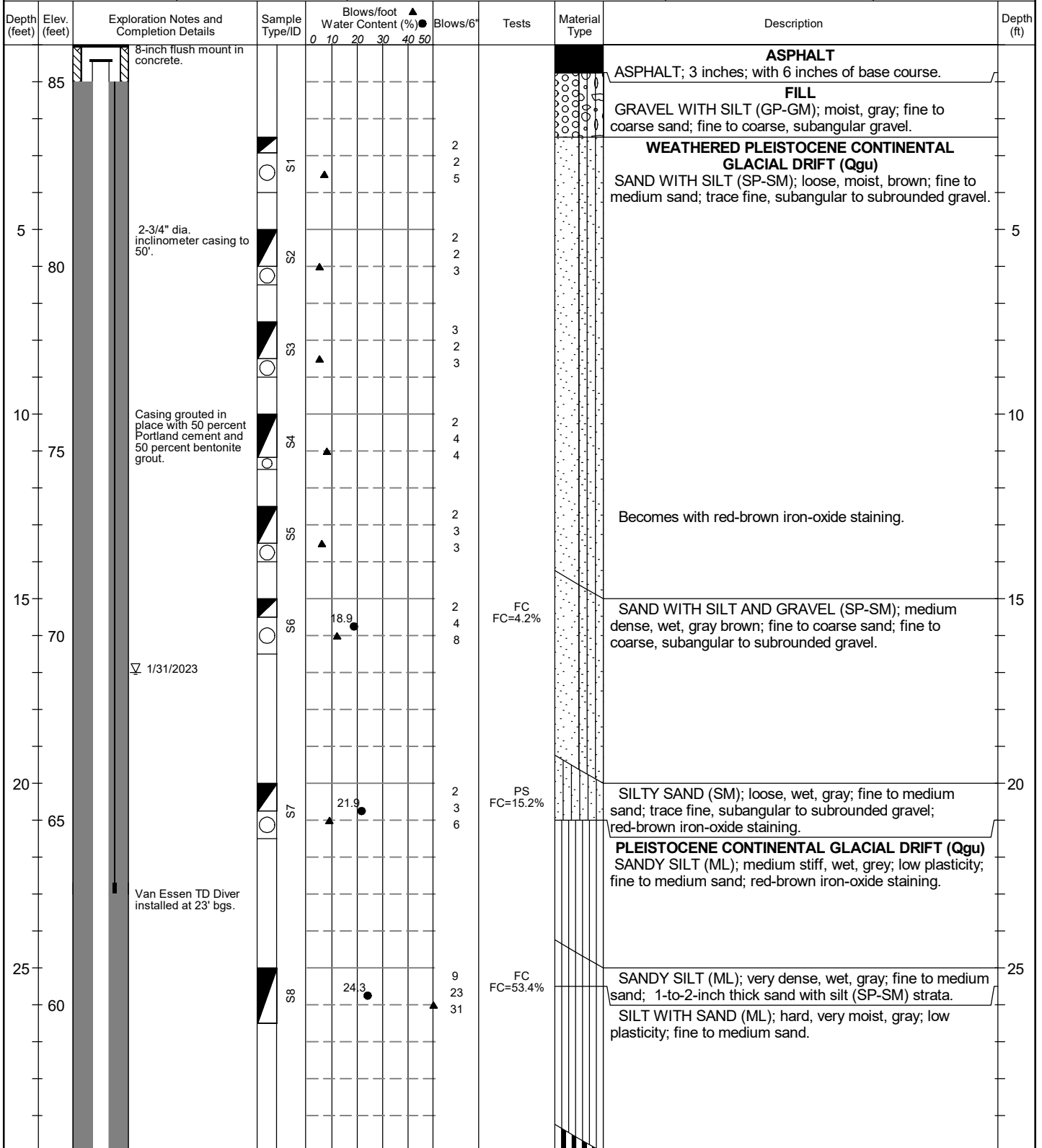
Depth to Water (Below GS)

Wesley Kennedy

2/17/2023

NA

17' (ATD)

**Legend**

- No Soil Sample Recovery  
■ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit  
▽ Water Level ATD

Water Level

See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH**Exploration Log**  
**AIC-01**

Sheet 1 of 2



# Bahia Vista Roadway Stabilization - 210516

# Geotechnical Exploration Log

Project Address & Site Specific Location

Coordinates (Lat,Lon WGS84)

Exploration Number

NE Bahia Vista Drive, West side of road, in right of way.

47.5932, -122.5939 (est)

**AIC-01**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Ecology Well Tag No.  
BPR 053

Cascade Drilling, LLC

CME75

Autohammer; 140 lb hammer; 30" drop

86' (est)

Operator

Exploration Method(s)  
8.5" OD X 4.25" ID  
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

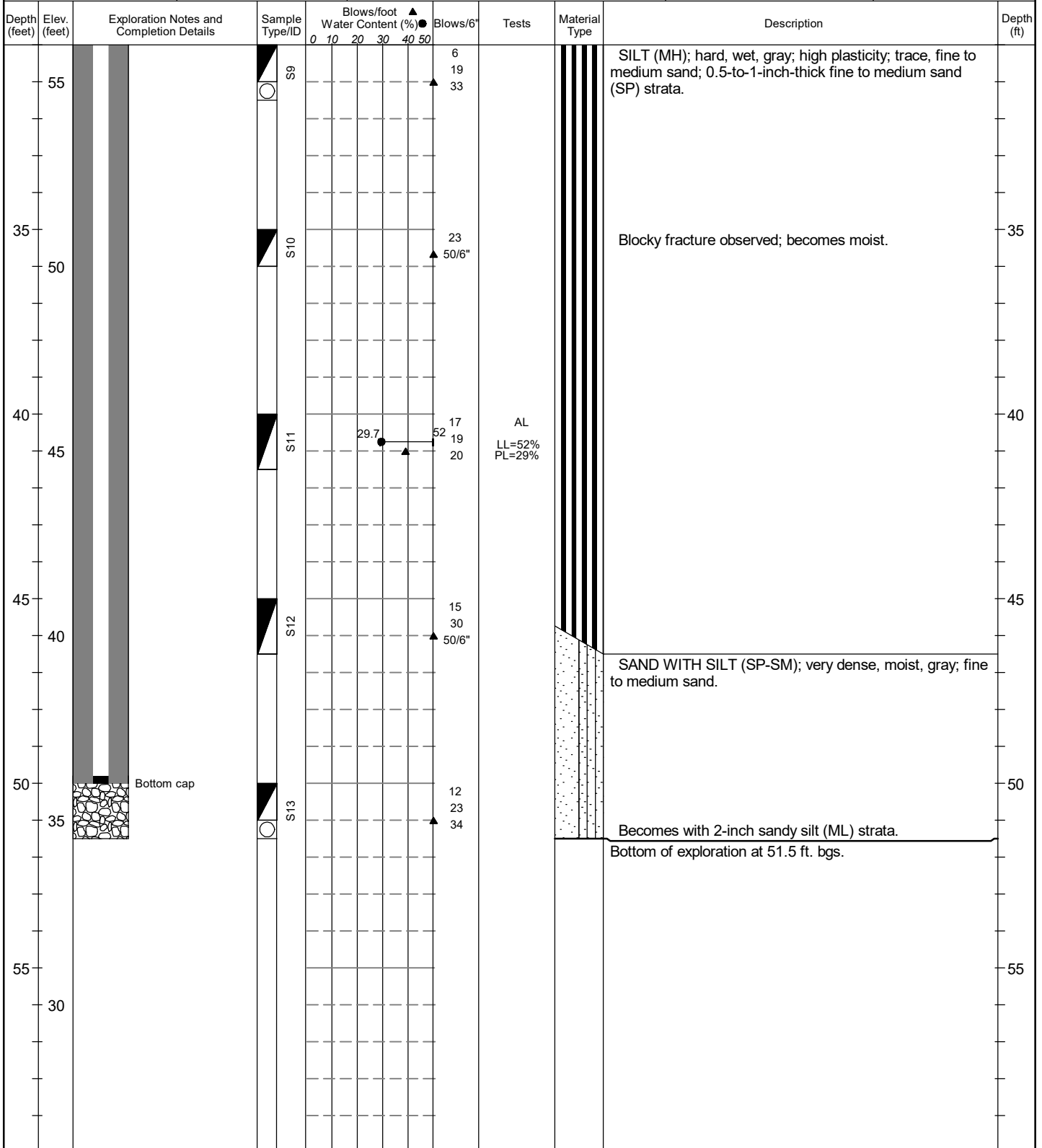
Depth to Water (Below GS)

Wesley Kennedy

2/17/2023

NA

17' (ATD)



## Legend

☐ No Soil Sample Recovery

■ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

▽ Water Level ATD

Water Level

See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH

**Exploration Log**  
**AIC-01**

Sheet 2 of 2





# Bahia Vista Roadway Stabilization - 210516

# Geotechnical Exploration Log

Project Address & Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

NE Bahia Vista Drive, East side of road, in right of way.

47.5934, -122.5936 (est)

**AIC-02**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Ecology Well Tag No.  
BPR 052

Cascade Drilling, LLC

CME75

Autohammer; 140 lb hammer; 30" drop

74' (est)

Operator

Exploration Method(s)  
6" OD X 2.25" ID Hollow  
Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

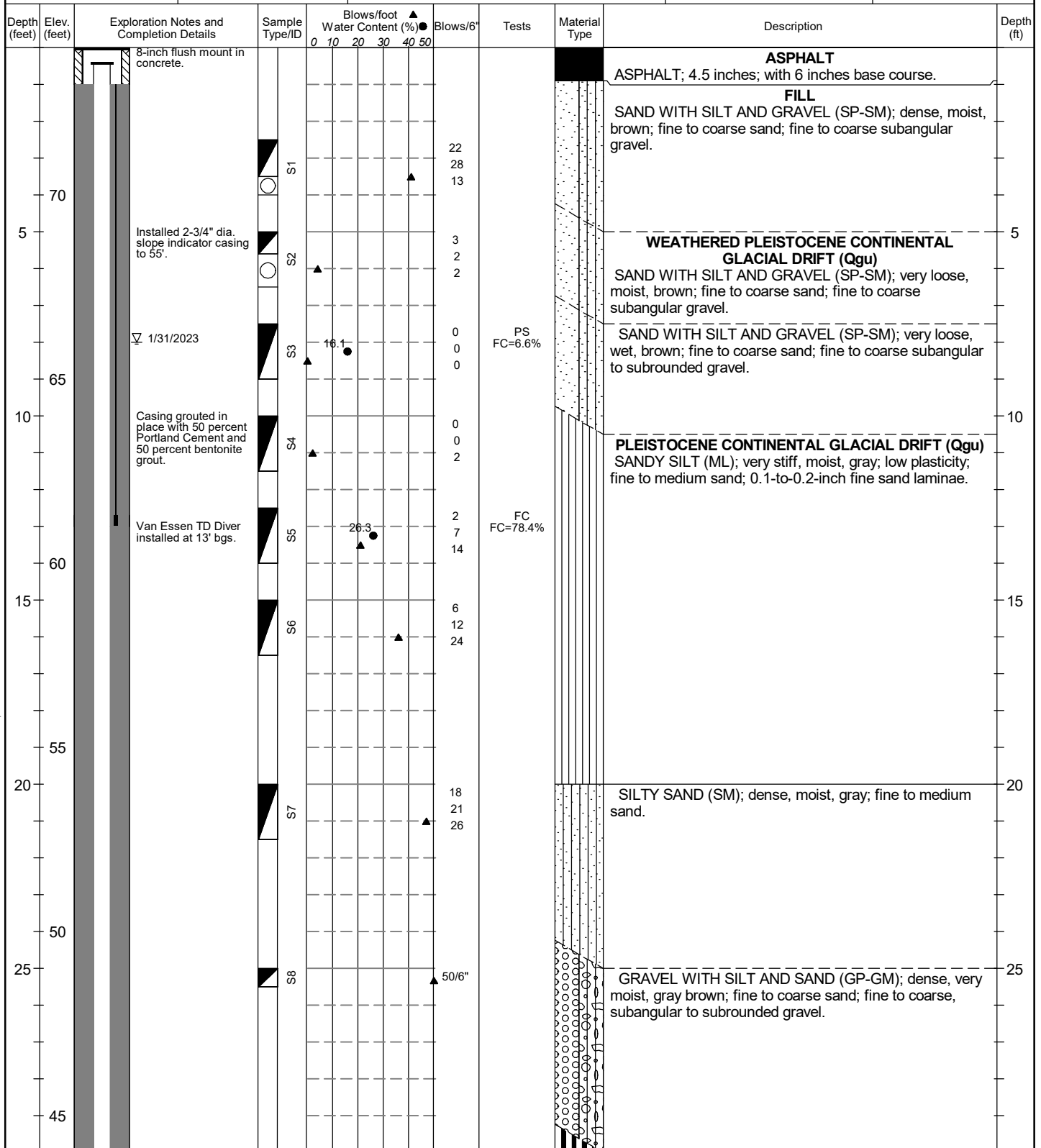
Depth to Water (Below GS)

Wesley Kennedy

1/31/2023

NA

8' (ATD)



## Legend

□ No Soil Sample Recovery

■ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

▽ Water Level ATD

Water Level

See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH

**Exploration Log**  
**AIC-02**

Sheet 1 of 2



# Bahia Vista Roadway Stabilization - 210516

# Geotechnical Exploration Log

Project Address & Site Specific Location

Coordinates (Lat,Lon WGS84)

Exploration Number

NE Bahia Vista Drive, East side of road, in right of way.

47.5934, -122.5936 (est)

**AIC-02**

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Ecology Well Tag No.  
BPR 052

Cascade Drilling, LLC

CME75

Autohammer; 140 lb hammer; 30" drop

74' (est)

Operator

Exploration Method(s)  
6" OD X 2.25" ID Hollow  
Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Wesley Kennedy

1/31/2023

NA

8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot Water Content (%)	Blows/6'	Tests	Material Type	Description	Depth (ft)
			S9		13 50/6"			SILT (MH); hard, moist, gray; high plasticity; trace, fine to medium sand.	
40									
35			S10		20 21 27			Becomes with 0.2-to-0.5-inch fine to medium sand strata.	35
35									
40			S11		15 24 30				40
30									
45			S12		18 25 32			Blocky fracture observed from 45 to 45.3 feet bgs. Becomes with 1-to-3-inch fine to medium silty sand (SM) strata.	45
25									
50			S13		18 34 42				50
20									
55			S14		18 36 40				55
15								Bottom of exploration at 56.5 ft. bgs.	

## Legend

☐ No Soil Sample Recovery

☒ Split Barrel 2" X 1.375" (SPT)

Plastic Limit ——— Liquid Limit

☒ Water Level ATD

Water  
Level

See Exploration Log Key for explanation of symbols

Logged by: CB  
Approved by: AJH

**Exploration  
Log  
AIC-02**

Sheet 2 of 2

## **APPENDIX B**

### **Laboratory Testing**

## **B. Geotechnical Laboratory Tests**

A geotechnical laboratory testing program was developed to determine the index properties of materials at the Site. Soil samples used in the testing program were collected from the soil borings. The tests were performed by Hayre-McElroy and Associates (HMA) at the direction of Aspect and the procedures followed are outlined below.

### **B.1 Moisture Content Determination**

Moisture contents were determined for samples recovered in the explorations in general accordance with ASTM D 2216, as soon as possible following their arrival to the laboratory. Moisture contents are shown on the exploration logs and shown in this appendix. Water content determination was also completed as part of other tests conducted and is shown with the results of those tests.

### **B.2 Fines Content Determination**

Percent material passing a No. 200 sieve (fines content) was conducted in accordance with ASTM C117 on selected soil samples collected from the soil borings. The results of the tests are presented in this appendix and on the boring logs.

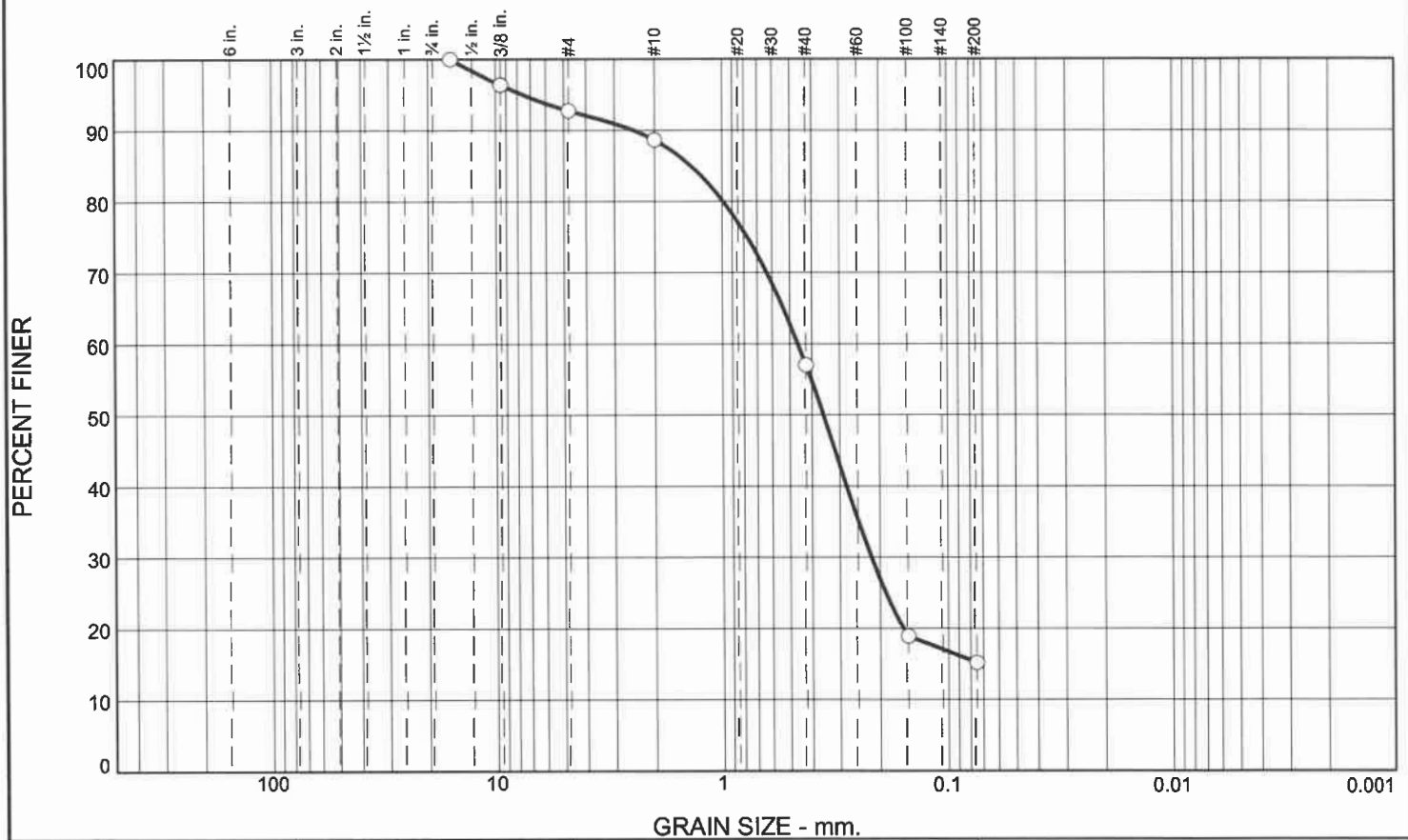
### **B.3 Grain-Size Analyses**

Grain-size analysis was analyzed in accordance with ASTM D6913 on selected soil samples collected from the soil borings. The results of the tests are presented in this appendix, plotting percent finer by weight versus grain size and on the boring logs.

### **B.4 Atterberg Limits Determination**

Select subsurface soil samples from the soil borings were submitted for analysis of plasticity index by the ASTM D4318 test method. This test method allows for the laboratory determination of the liquid limit and the plastic limit of the fines in a soil sample. Test results are shown on the exploration logs and in this appendix.

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	7.2	4.1	31.7	41.8	15.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
5/8"	100.0		
3/8"	96.4		
#4	92.8		
#10	88.7		
#40	57.0		
#100	18.9		
#200	15.2		

\* (no specification provided)

**Soil Description**  
Silty SAND

**Atterberg Limits**  
 PL=      LL=      PI=

**Coefficients**  
 D<sub>90</sub>= 2.4500      D<sub>85</sub>= 1.3738      D<sub>60</sub>= 0.4609  
 D<sub>50</sub>= 0.3561      D<sub>30</sub>= 0.2185      D<sub>15</sub>=  
 D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

**Classification**  
 USCS= SM      AASHTO=

**Remarks**

Source of Sample: AIC-01 / S-7  
Sample Number: 8632

Depth: 20

Date: 3/24/23

Hayre McElroy & Associates, LLC

Client: Aspect Consulting

Project: Bahia Vista

Redmond, WA

Project No: 08-175 / 210516

Figure

Tested By: AD

Checked By: JAM

## GRAIN SIZE DISTRIBUTION TEST DATA

3/24/2023

Client: Aspect Consulting

Project: Bahia Vista

Project Number: 08-175 / 210516

Location: AIC-01 / S-7

Depth: 20

Sample Number: 8632

Material Description: Silty SAND

Date: 3/24/23

USCS Classification: SM

Tested by: AD

Checked by: JAM

## Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 406.20  
 Tare Wt. = 12.60  
 Minus #200 from wash = 14.7%

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
474.10	12.60	0.00	5/8"	0.00	100.0
			3/8"	16.50	96.4
			#4	33.30	92.8
			#10	52.20	88.7
			#40	198.30	57.0
			#100	374.20	18.9
			#200	391.30	15.2

## Fractional Components

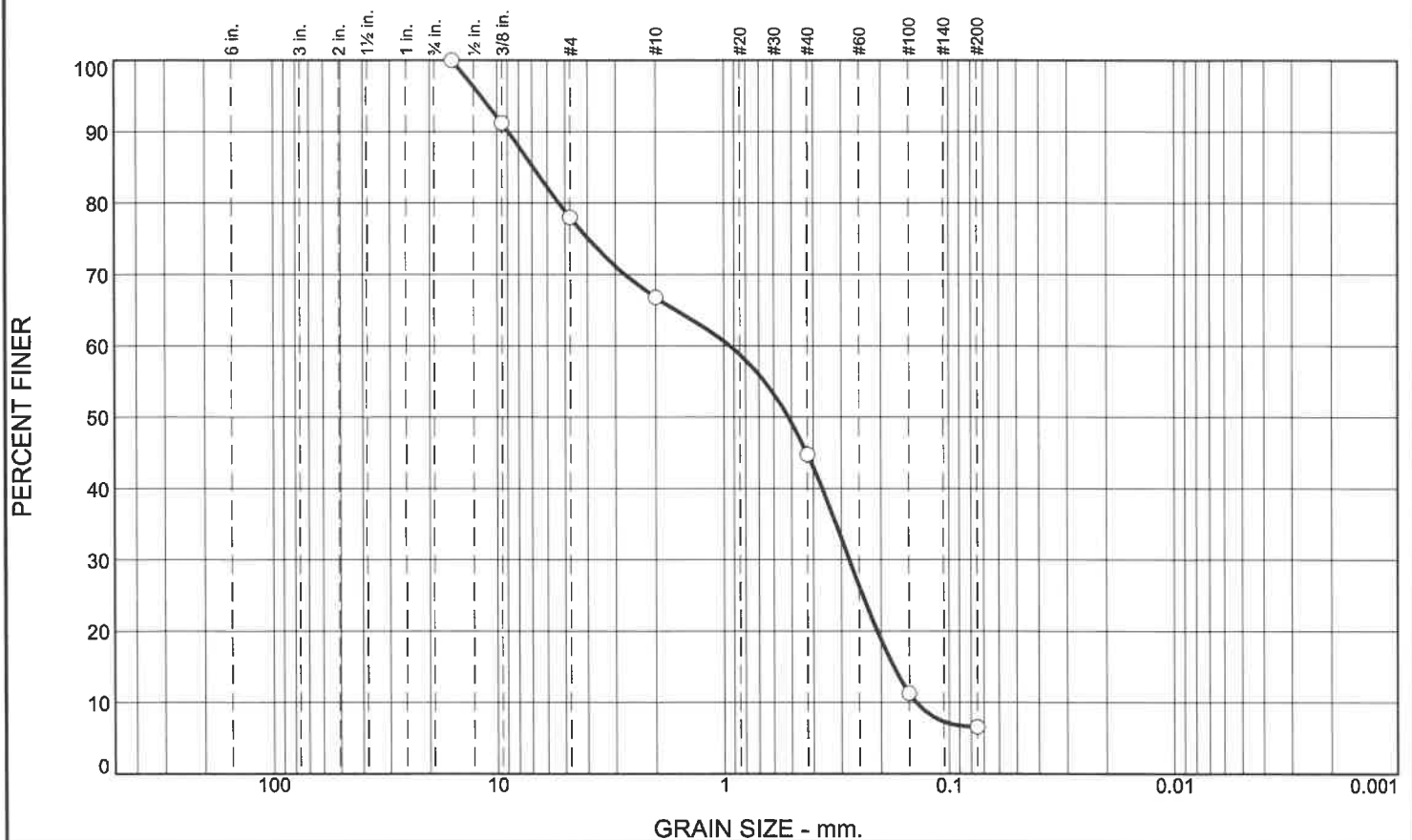
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	7.2	7.2	4.1	31.7	41.8	77.6			15.2

D <sub>5</sub>	D <sub>10</sub>	D <sub>15</sub>	D <sub>20</sub>	D <sub>30</sub>	D <sub>40</sub>	D <sub>50</sub>	D <sub>60</sub>	D <sub>80</sub>	D <sub>85</sub>	D <sub>90</sub>	D <sub>95</sub>
			0.1578	0.2185	0.2807	0.3561	0.4609	0.9873	1.3738	2.4500	7.5132

**Fineness  
Modulus**

2.08

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	22.0	11.2	22.0	38.2	6.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
5/8"	100.0		
3/8"	91.2		
#4	78.0		
#10	66.8		
#40	44.8		
#100	11.3		
#200	6.6		

\* (no specification provided)

**Soil Description**  
Poorly graded SAND with silt and gravel

**Atterberg Limits**  
 PL=      LL=      PI=

**Coefficients**  
 D<sub>90</sub>= 8.9249      D<sub>85</sub>= 6.9010      D<sub>60</sub>= 0.9397  
 D<sub>50</sub>= 0.5168      D<sub>30</sub>= 0.2767      D<sub>15</sub>= 0.1759  
 D<sub>10</sub>= 0.1391      C<sub>u</sub>= 6.75      C<sub>c</sub>= 0.59

**Classification**  
 USCS= SP-SM      AASHTO=

**Remarks**

Source of Sample: AIC-02 / S-3      Depth: 7.5  
 Sample Number: 8632

Date: 3/24/23

Hayre McElroy & Associates, LLC

Client: Aspect Consulting  
 Project: Bahia Vista

Redmond, WA

Project No: 08-175 / 210516

Figure

Tested By: AD

Checked By: JAM

## GRAIN SIZE DISTRIBUTION TEST DATA

3/24/2023

Client: Aspect Consulting

Project: Bahia Vista

Project Number: 08-175 / 210516

Location: AIC-02 / S-3

Depth: 7.5

Sample Number: 8632

Material Description: Poorly graded SAND with silt and gravel

Date: 3/24/23

USCS Classification: SP-SM

Tested by: AD

Checked by: JAM

## Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 659.10

Tare Wt. = 16.00

Minus #200 from wash = 6.2%

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
701.70	16.00	0.00	5/8"	0.00	100.0
			3/8"	60.20	91.2
			#4	150.90	78.0
			#10	227.60	66.8
			#40	378.60	44.8
			#100	608.20	11.3
			#200	640.60	6.6

## Fractional Components

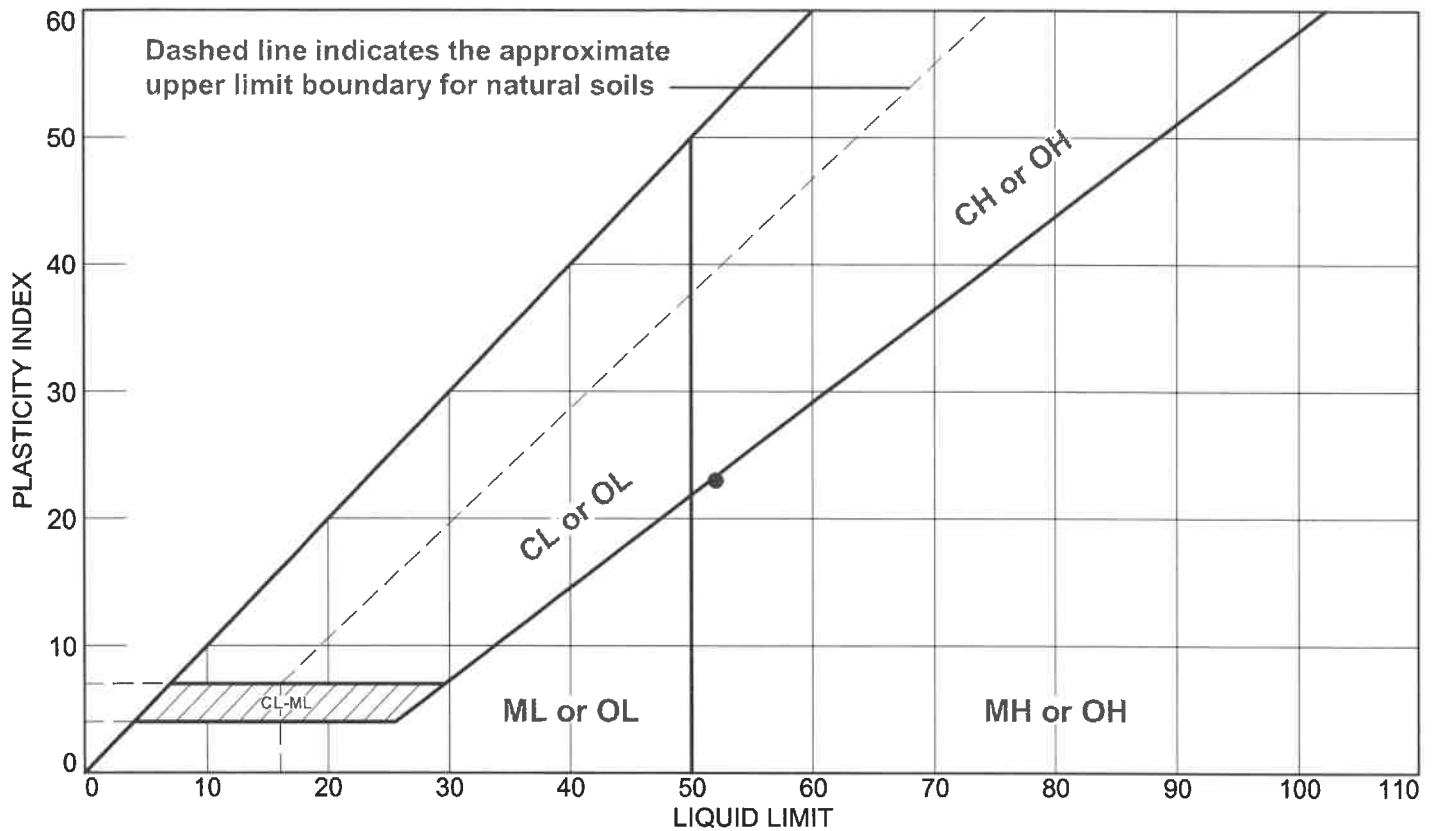
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	22.0	22.0	11.2	22.0	38.2	71.4			6.6

D <sub>5</sub>	D <sub>10</sub>	D <sub>15</sub>	D <sub>20</sub>	D <sub>30</sub>	D <sub>40</sub>	D <sub>50</sub>	D <sub>60</sub>	D <sub>80</sub>	D <sub>85</sub>	D <sub>90</sub>	D <sub>95</sub>
	0.1391	0.1759	0.2080	0.2767	0.3660	0.5168	0.9397	5.3151	6.9010	8.9249	11.7775

Fineness Modulus	C <sub>u</sub>	C <sub>c</sub>
3.03	6.75	0.59



# LIQUID AND PLASTIC LIMITS TEST REPORT



## SOIL DATA

	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LIQUIDITY INDEX	USCS
•	AIC-01 / S-11	8632	40	29.7	29	52	23	0.0	MH

Hayre McElroy & Associates, LLC

Client: Aspect Consulting

Project: Bahia Vista

Redmond, WA

Project No.: 08-175 / 210516

Figure

Tested By: AD

Checked By: JAM

# LIQUID AND PLASTIC LIMIT TEST DATA

3/24/2023

**Client:** Aspect Consulting

**Project:** Bahia Vista

**Project Number:** 08-175 / 210516

**Location:** AIC-01 / S-11

**Depth:** 40

**Sample Number:** 8632

**Material Description:** Elastic SILT with sand

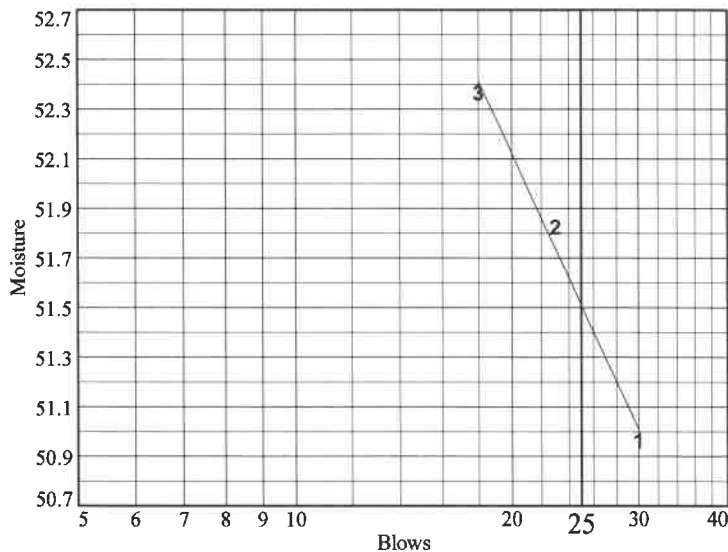
**USCS:** MH

**Tested by:** AD

**Checked by:** JAM

## Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	30.09	31.98	29.79			
Dry+Tare	24.56	25.74	24.26			
Tare	13.71	13.70	13.70			
# Blows	30	23	18			
Moisture	51.0	51.8	52.4			



Liquid Limit=	52
Plastic Limit=	29
Plasticity Index=	23
Natural Moisture=	29.7
Liquidity Index=	0.0

## Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	23.11				
Dry+Tare	21.02				
Tare	13.70				
Moisture	28.6				

## Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
99.1	81	20	29.7

# Minus No. 200 Wash

ASTM C117

Method: A

Project Number: 08-175 / 210516

Technician: AD

Project Name: Bahia Vista

Received: 3/17/2023

Lab Number: 8632

Start Date: 3/17/2023

Finish Date: 3/24/2023

HMA LAB NO	Boring No	Sample Number	Depth (ft)	Tare Weight (g)	Tare+Dry Weight Before Wash (g)	Tare+Dry Weight After Wash (g)	% Retained	% PASSING
8632	AIC-01	S-6	15	12.8	354.1	339.9	95.8	4.2
8632	AIC-01	S-8	25	12.7	470.7	226.2	46.6	53.4
8632	AIC-02	S-5	12.5	12.6	440	104.9	21.6	78.4



# Moisture Content

## ASTM D-2216

**Project Number:** 08-175 / 210516 **Received Date:** 3/17/2023

**Project Name:** Bahia Vista **Start Date:** 3/17/2023

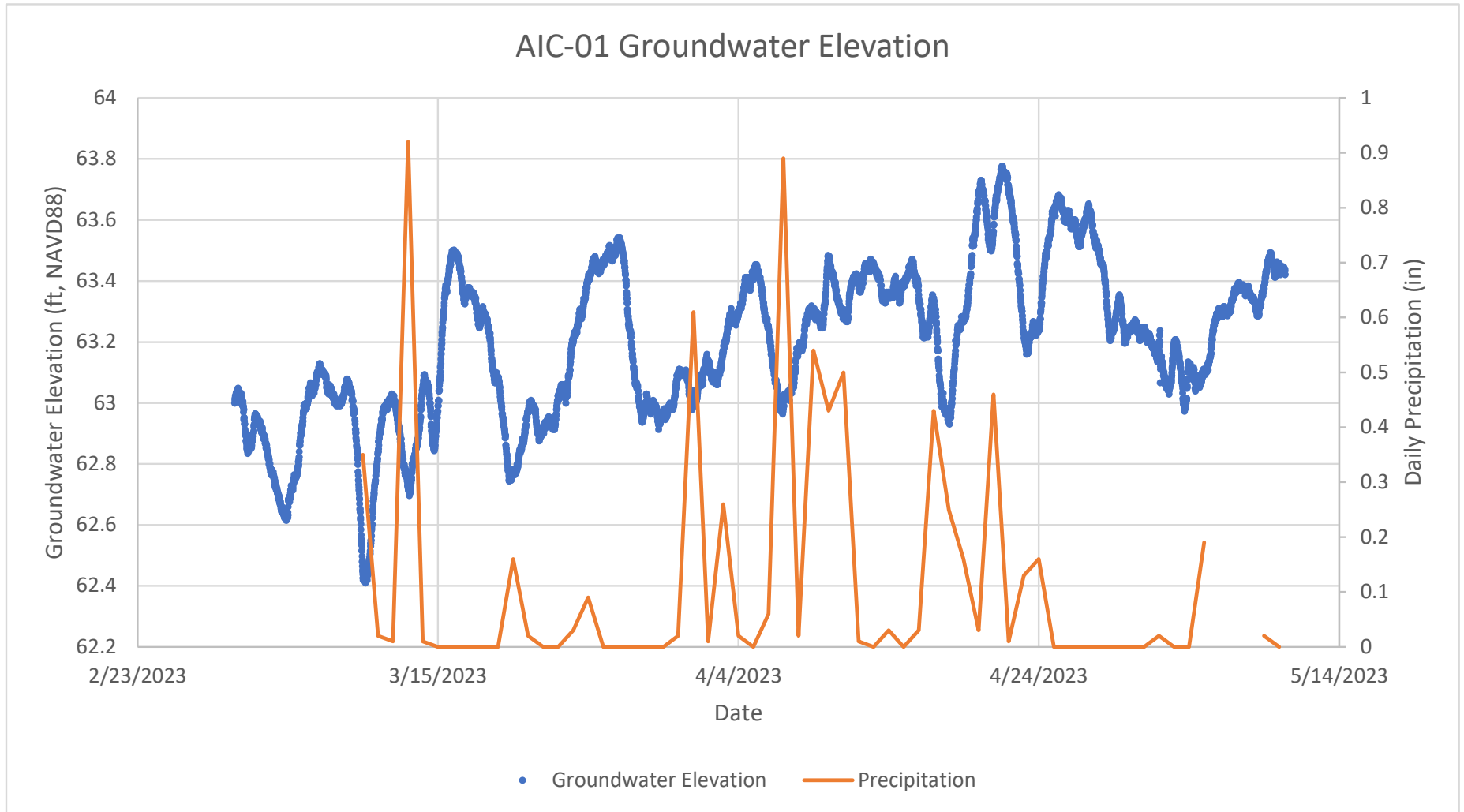
**Lab Number:** 8632 **Finish Date:** 3/24/2023

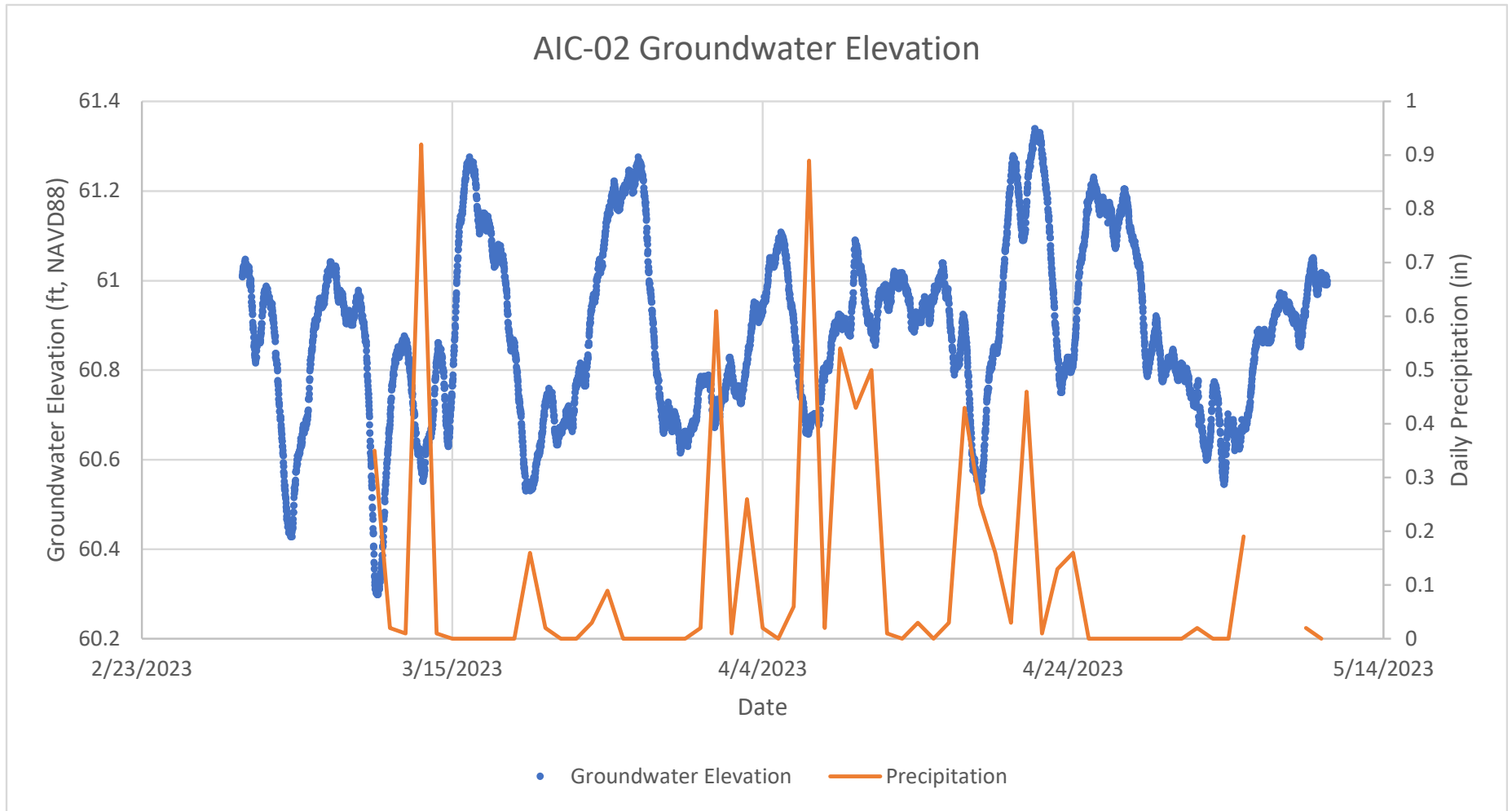
**Technician:** AD

HMA Lab #	Boring	Sample	Depth (ft)	Weight of Moist Soil + Tare (g)	Weight of Dry Soil + Tare (g)	Tare Weight (g)	Moisture Content (%)
8632	AIC-01	S-6	15	418.7	354.1	12.8	18.9
8632	AIC-01	S-7	20	575.1	474.1	12.6	21.9
8632	AIC-01	S-8	25	581.8	470.7	12.7	24.3
8632	AIC-01	S-11	40	99.1	81	20	29.7
8632	AIC-02	S-3	7.5	812.4	701.7	16	16.1
8632	AIC-02	S-5	12.5	552.2	440	12.6	26.3

## **APPENDIX C**

### **Groundwater Monitoring Plots**

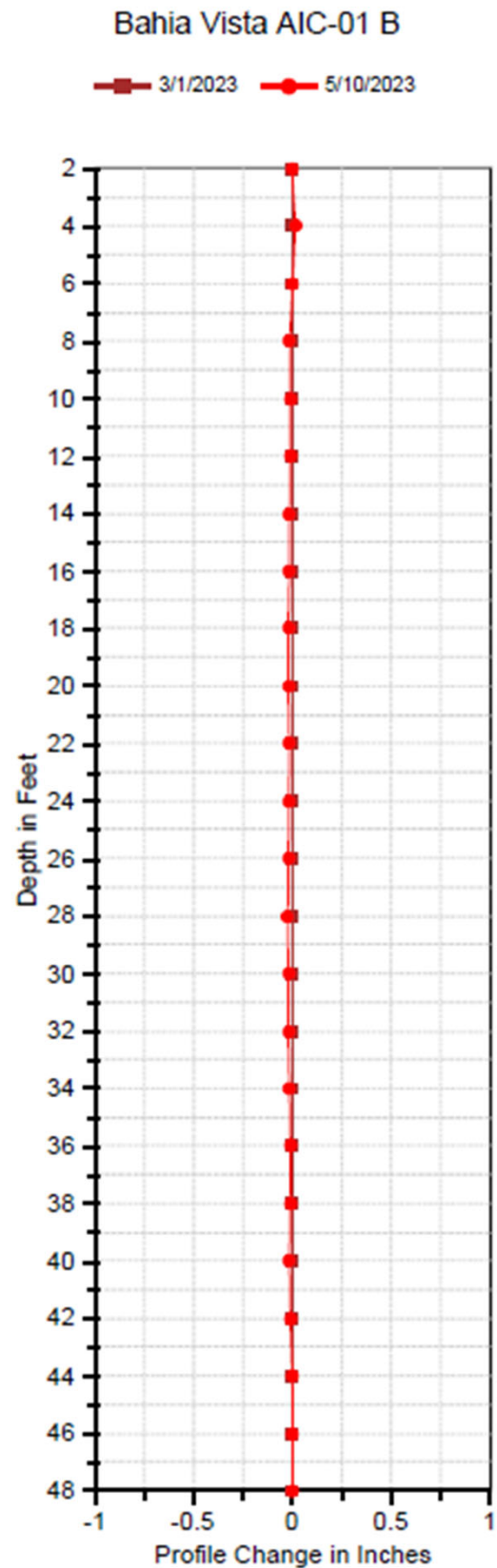
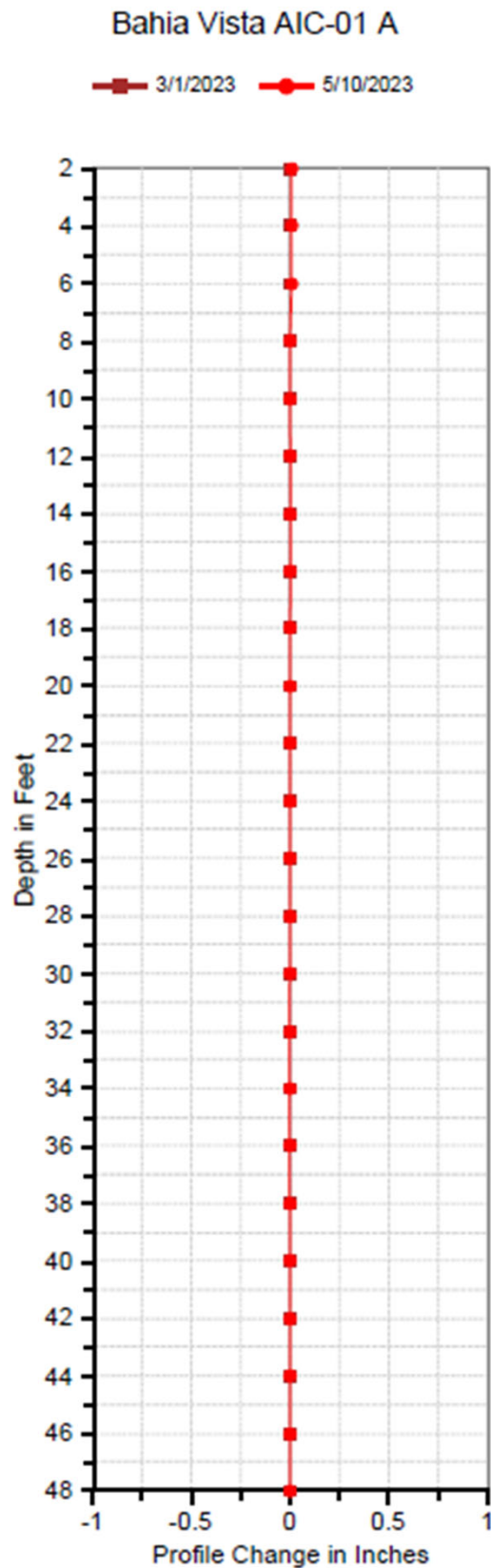




## **APPENDIX D**

### **Inclinometer Plots**



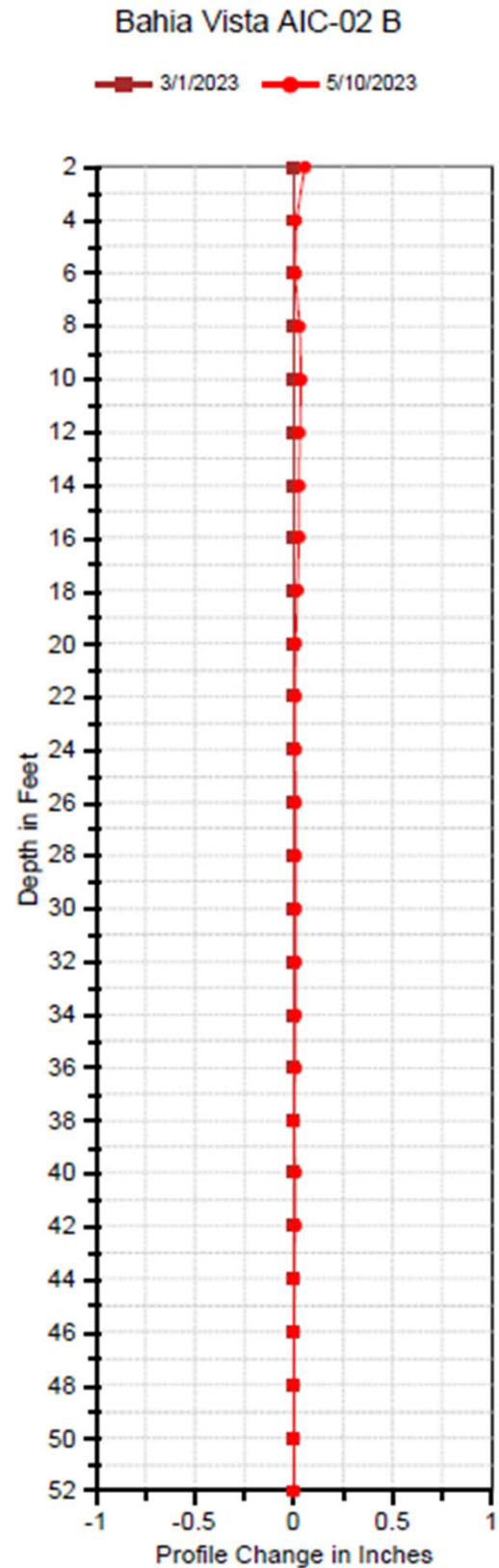
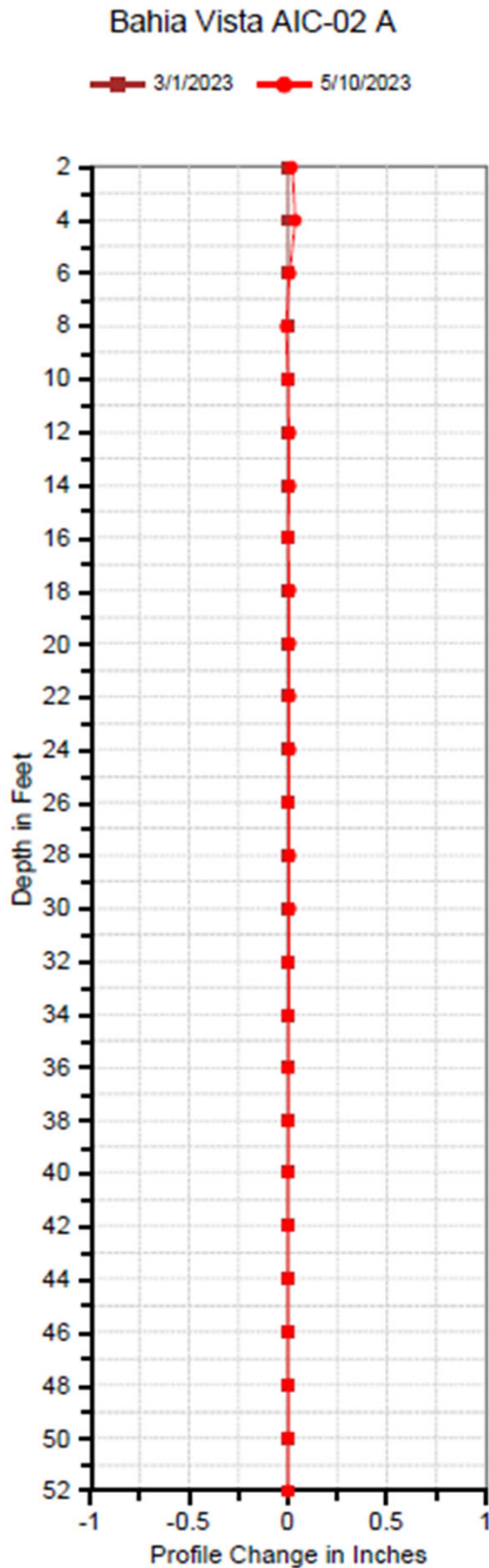


**Notes:**

1. "A" Plot is the primary direction of movement for the roadway deformation.

**Inclinometer Monitoring Plot – AIC-01**

Bahia Vista Roadway  
Kitsap County, Washington



**Notes:**

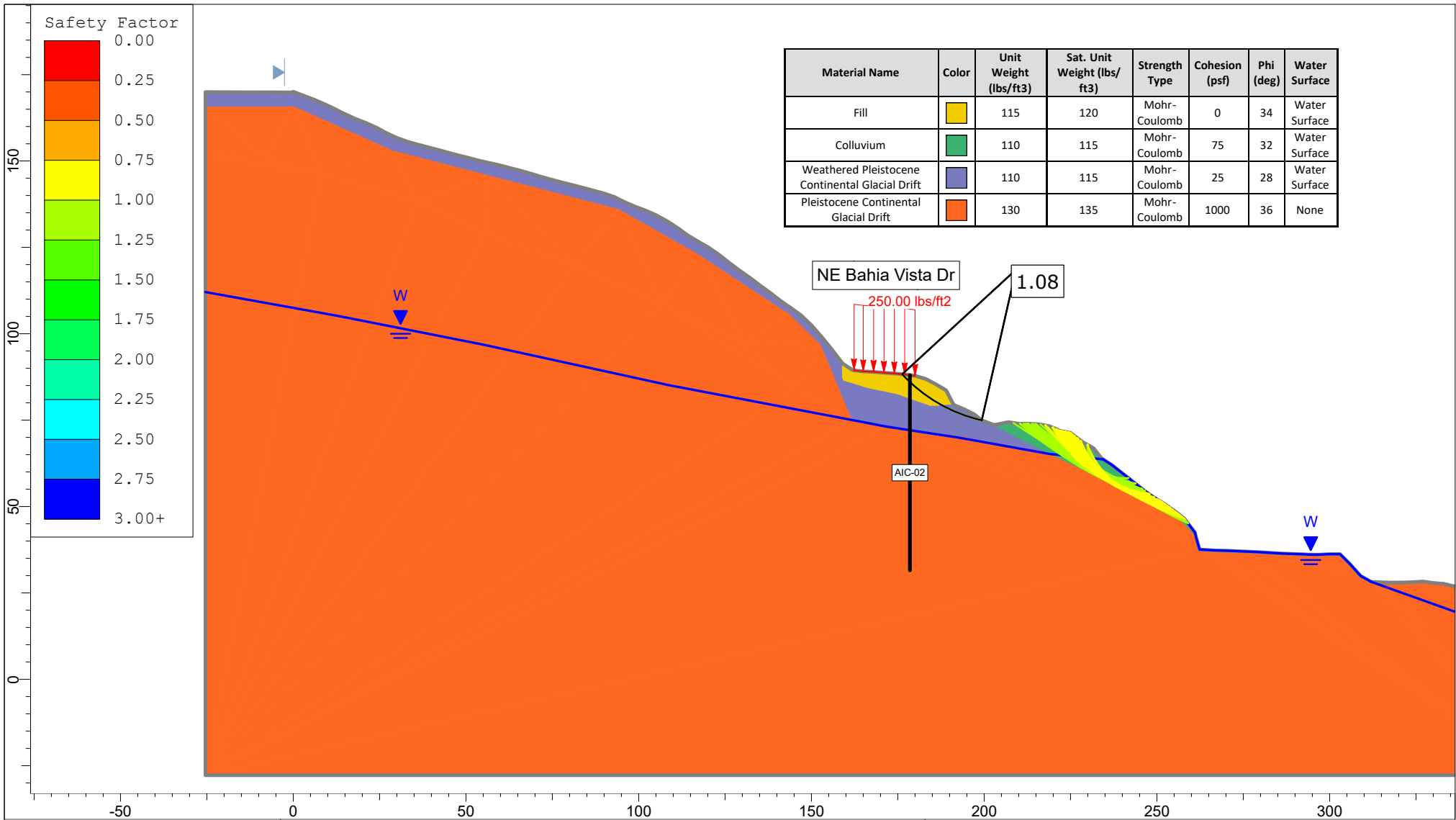
1. "A" Plot is the primary direction of movement for the roadway deformation.

**Inclinometer Monitoring Plot – AIC-02**

Bahia Vista Roadway  
Kitsap County, Washington

## **APPENDIX E**

### **Slope Stability Analyses**



#### Legend

- Search Grid
- Search Limits
- Modeled Groundwater Level
- Boring Location and Depth

## Section A-A' Existing Conditions Static - Average Groundwater

## Slope Stability Analysis

NE Bahia Vista Drive Roadway Stabilization  
NE Bahia Vista Drive  
Kitsap County, WA

SCALE: 1" = 40'

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Landslide\Data\Analyses\SSA\Bahia Vista SSA\_2023.08.15.slm



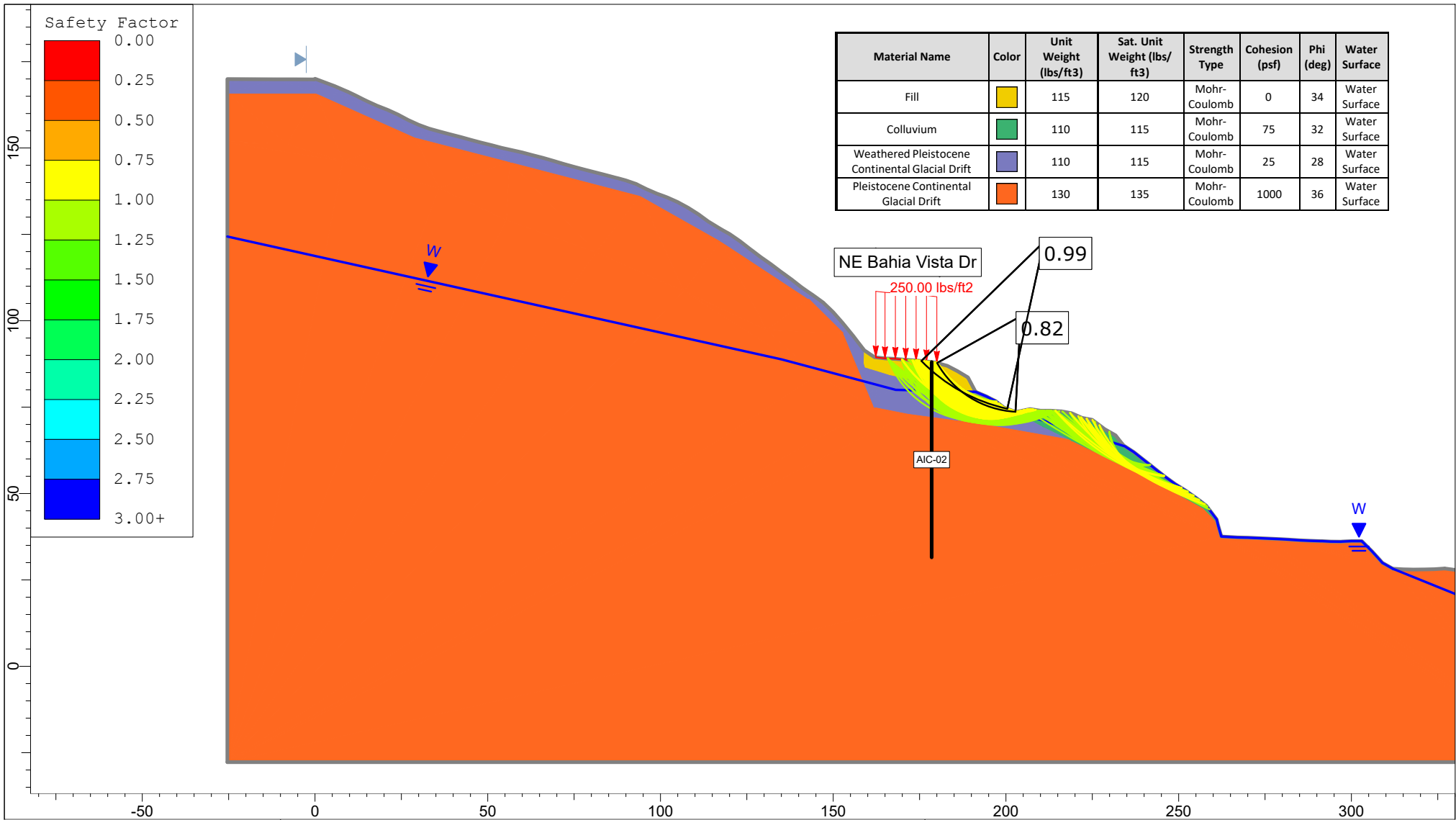
8/15/2023

PROJECT NO.  
210516

BY:  
STM

REVIEWED BY:  
AJH

**E-1**



#### Legend

- Search Grid
- Search Limits
- Modeled Groundwater Level
- Boring Location and Depth

## Section A-A' Existing Conditions Static - High Groundwater

## Slope Stability Analysis

NE Bahia Vista Drive Roadway Stabilization  
NE Bahia Vista Drive  
Kitsap County, WA

SCALE: 1" = 40'

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Landslide\Data\Analyses\SSA\Bahia Vista SSA\_2023.08.15.slmd

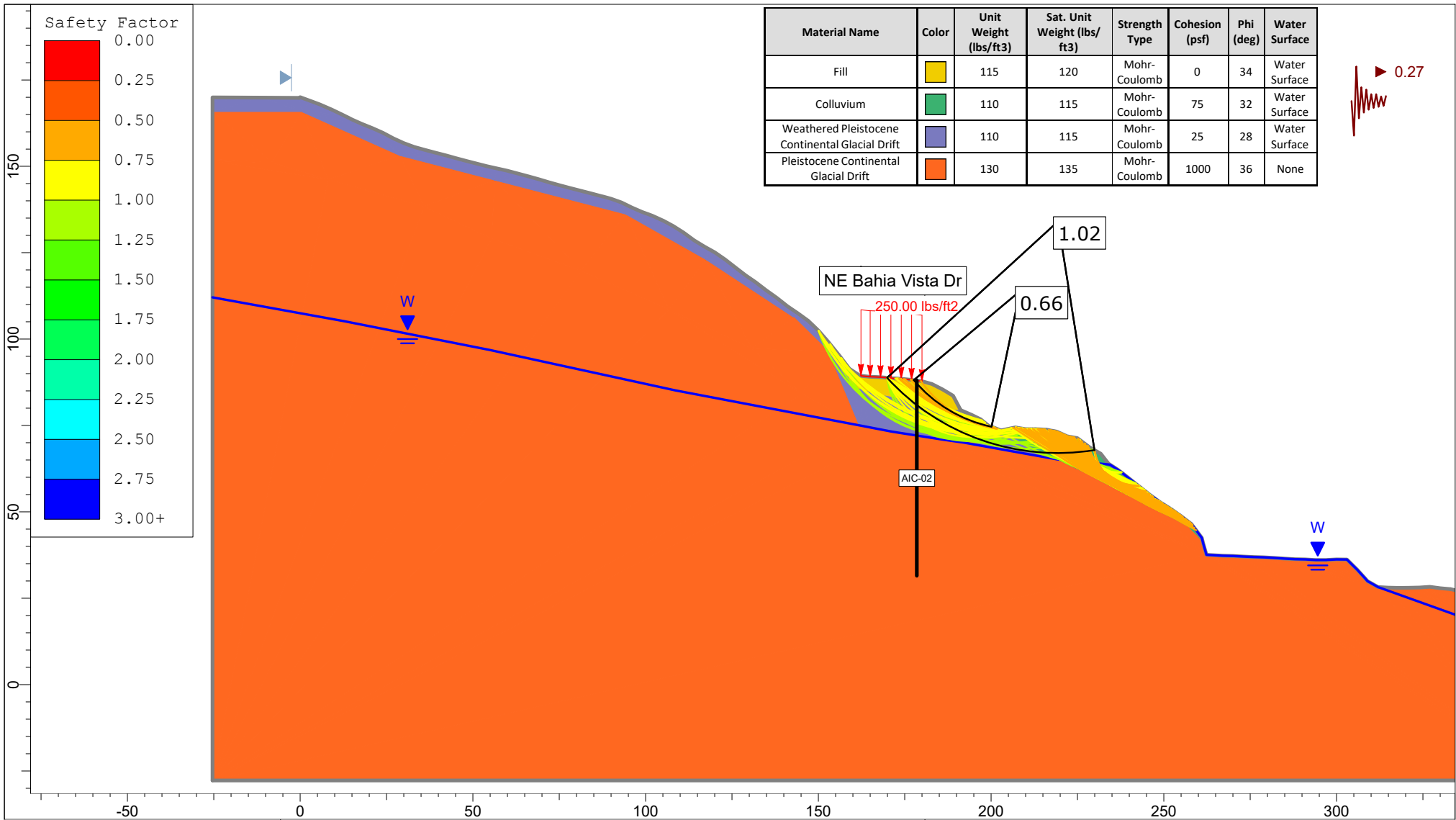


8/15/2023

PROJECT NO.  
210516

BY:  
STM  
REVIEWED BY:  
AJH

**E-2**



**Legend**

- Search Grid
- Search Limits
- Modeled Groundwater Level
- Boring Location and Depth

## Section A-A' Existing Conditions

## Seismic - Average Groundwater

## Slope Stability Analysis

NE Bahia Vista Drive Roadway Stabilization  
NE Bahia Vista Drive  
Kitsap County, WA

SLIDEINTERPRET 9.024

SCALE: 1" = 40'

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Landslide\Data\Analyses\SSA\Bahia Vista SSA\_2023.08.15.slm

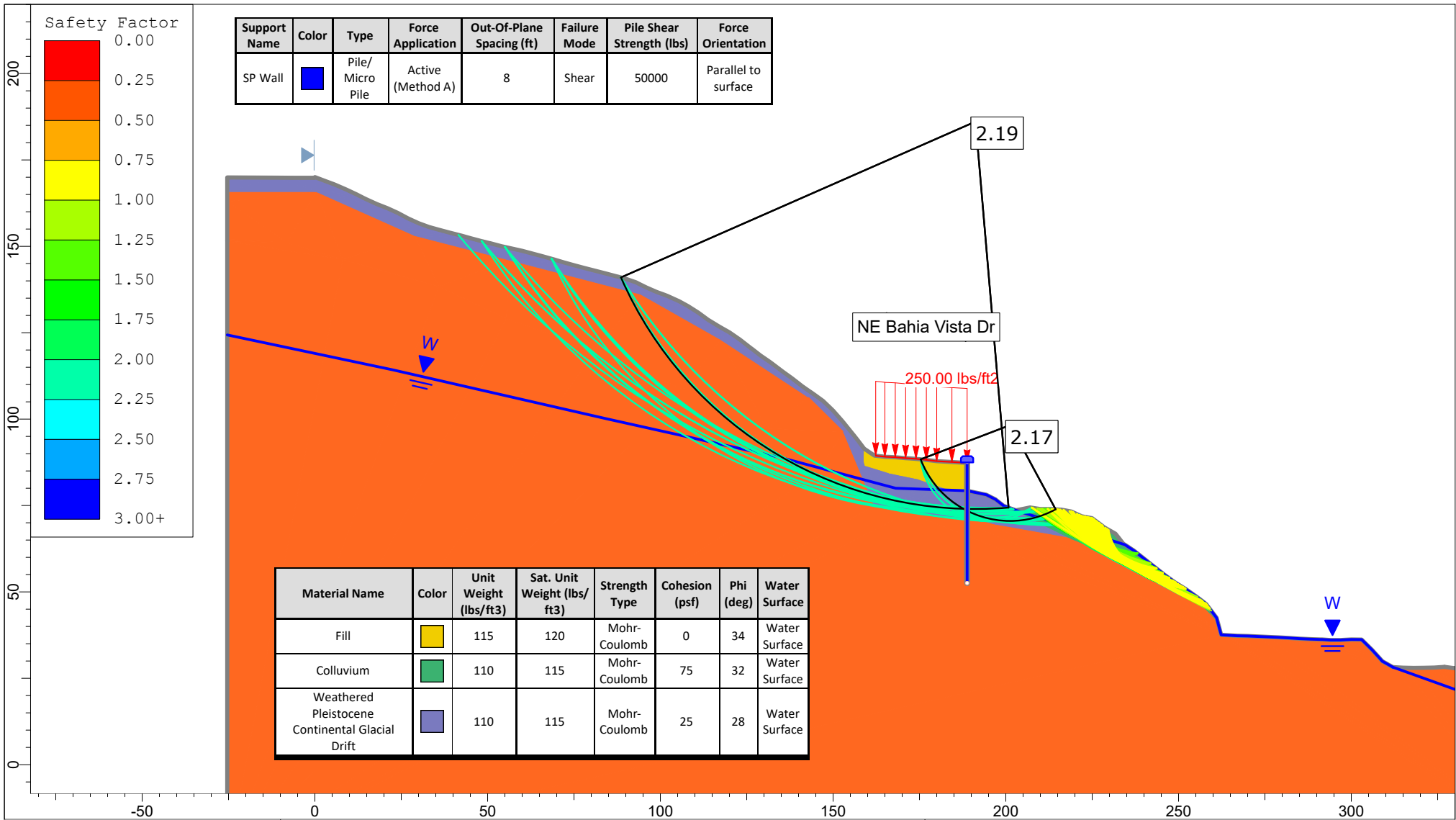
8/15/2023

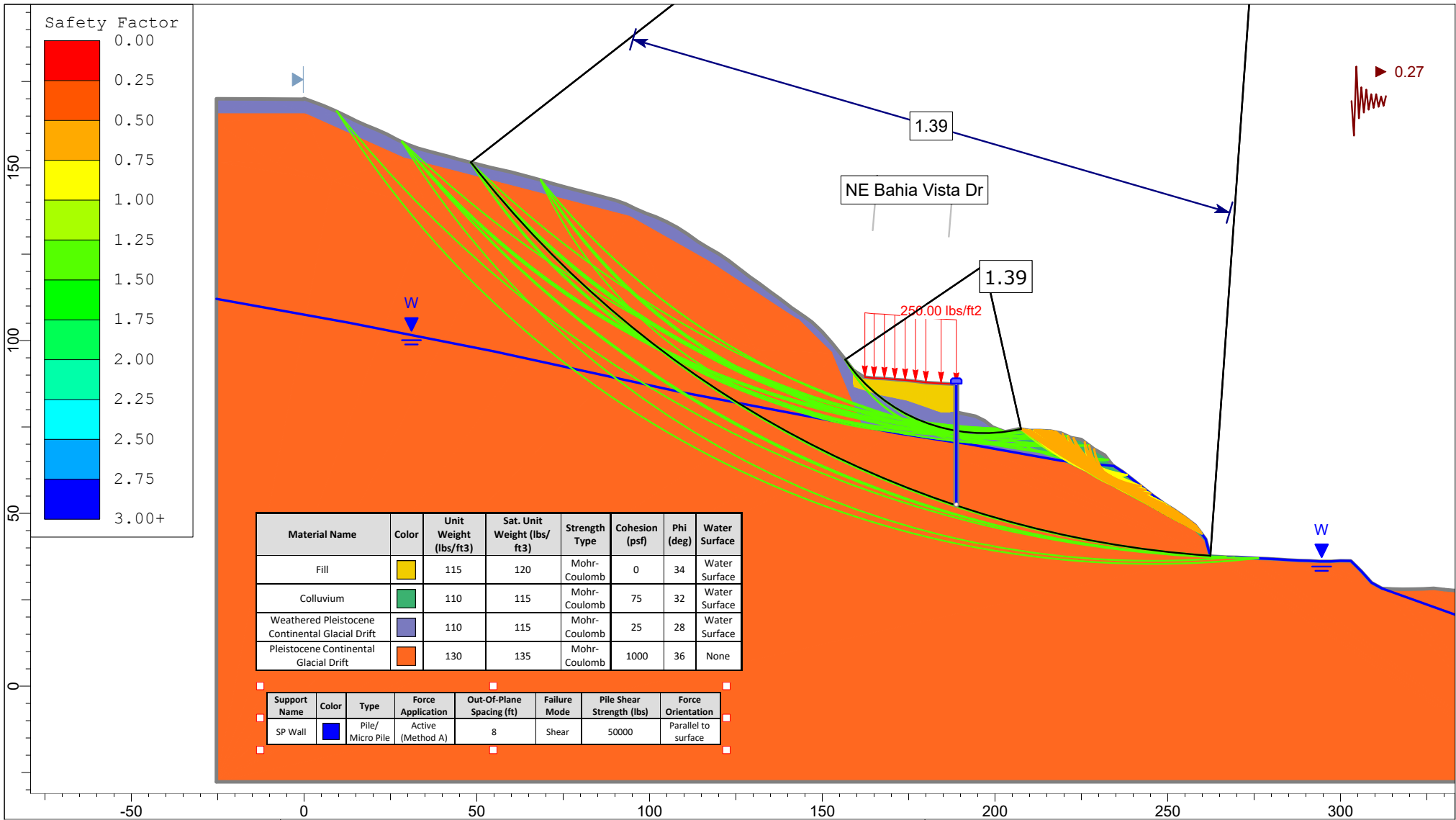
PROJECT NO.  
210516

BY:  
STM

REVIEWED BY:  
AJH

# E-3





#### Legend

- Search Grid
- Search Limits
- Modeled Groundwater Level
- Boring Location and Depth

## Section A-A' Soldier Pile Wall Seismic - Average Groundwater

## Slope Stability Analysis

NE Bahia Vista Drive Roadway Stabilization  
NE Bahia Vista Drive  
Kitsap County, WA

SCALE: 1" = 40'

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Landslide\Data\Analyses\SSA\Bahia Vista SSA\_2023.08.15.slmd



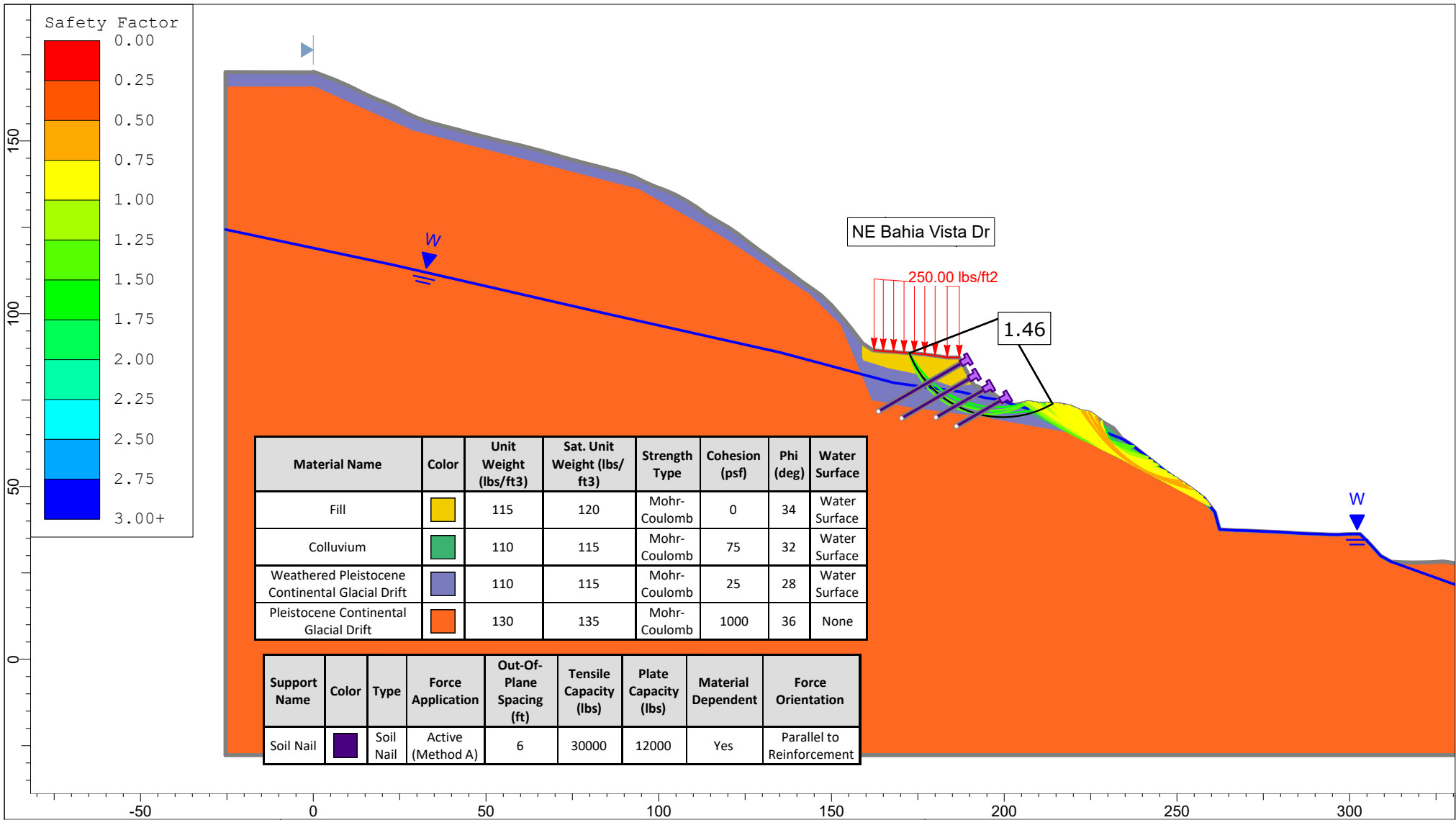
8/15/2023

PROJECT NO.  
210516

BY:  
STM  
REVIEWED BY:  
AJH

**E-5**





#### Legend

- Search Grid
- Search Limits
- Modeled Groundwater Level
- Boring Location and Depth

## Section A-A' Soil Nail Wall Static - High Groundwater

## Slope Stability Analysis

NE Bahia Vista Drive Roadway Stabilization  
NE Bahia Vista Drive  
Kitsap County, WA

SCALE: 1" = 40'

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Landslide\Data\Analyses\SSA\Bahia Vista SSA\_2023.08.15.slm

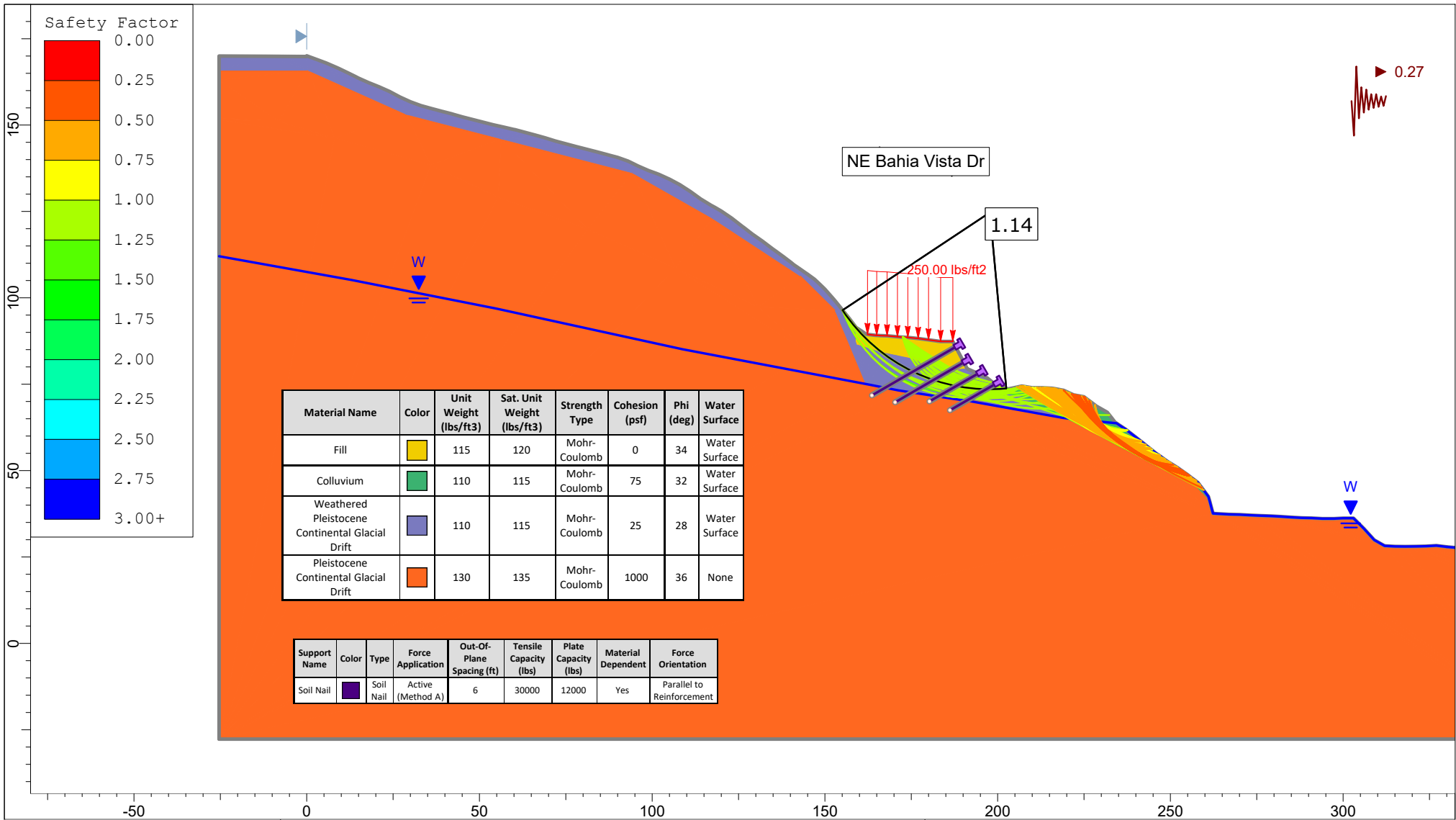


8/15/2023

PROJECT NO.  
210516

BY:  
STM  
REVIEWED BY:  
AJH

E-6



#### Legend

- Search Grid
- Search Limits
- Modeled Groundwater Level
- Boring Location and Depth

## Section A-A' Soil Nail Wall Seismic - Average Groundwater

## Slope Stability Analysis

NE Bahia Vista Drive Roadway Stabilization  
NE Bahia Vista Drive  
Kitsap County, WA

SCALE: 1" = 40'

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Landslide\Data\Analyses\SSA\Bahia Vista SSA\_2023.08.15.slm



8/15/2023

PROJECT NO.  
210516

BY:  
STM  
REVIEWED BY:  
AJH

E-7

## **APPENDIX F**

### **Preliminary Stabilization Alternative Cost Estimates**

## Table F-1. Engineer's Opinion of Probable Cost for Conceptual Design - Soldier Pile Wall

Project No. 210516-D, Bahia Vista Roadway Stabilization, Kitsap County, Washington

Item Description	Unit	Quantity	Unit Price	Total
Gravel Backfill for Walls	CY	45	\$ 60	\$ 3,000
Soldier Piles W18X86 <sup>(1)</sup>	LF	608	\$ 190	\$ 116,000
Permanent Wood Lagging 6X <sup>(2)</sup>	SF	1700	\$ 60	\$ 102,000
Guardrail	LF	150	\$ 70	\$ 11,000
Guardrail Terminal	EACH	2	\$ 5,000	\$ 10,000
Temporary Erosion Control	LS	1	\$ 5,000	\$ 5,000
Excavation for Bench	CY	120	\$ 60	\$ 8,000
Quarry Spalls for End of Wall Transitions	CY	10	\$ 100	\$ 1,000
Bark Mulch for Bench	CY	10	\$ 150	\$ 2,000
<b>Sub-Total</b>				<b>\$ 258,000</b>
WA State Sales Tax 9.2%				\$ 23,736
Construction Contingency 15%				\$ 38,700
<b>Total Construction Cost</b>				<b>\$ 320,436</b>

### Notes:

1. Assumes 150-foot-long soldier pile wall with average 9-foot exposed height.
2. Includes furnishing and installing 32-foot-long W18x86 structural steel piles with corrosion protection and installation using drilled-in methods.
3. Assumes Douglas-Fir, grade No.2 (or better) and treated in accordance with WSDOT Standard Specification 9-09.3(1).
4. Excludes roadway closure/signage.
5. Excludes survey for pile layout.
6. Excludes geotechnical special inspections.
7. Excludes roadway restoration/re-paving or other drainage improvements.
8. Total costs rounded to nearest \$1,000

Aspect Consulting

August 2023

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**Table F-1**

Bahia Vista Roadway Stabilization

Page 1 of 1

**Table F-2. Engineer's Opinion of Probable Cost for Conceptual Design - Soil Nail Wall**

Project No. 210516-D, Bahia Vista Roadway Stabilization, Kitsap County, Washington

Item Description	Unit	Quantity	Unit Price	Total
Soil Nails	EACH	60	\$ 3,500	\$ 210,000
Shotcrete	SF	1500	\$ 70	\$ 105,000
Soil Nail Verification Tests	EACH	3	\$ 3,600	\$ 11,000
Soil Nail Proof Tests	EACH	6	\$ 1,500	\$ 9,000
Guardrail	LF	150	\$ 70	\$ 11,000
Guardrail Terminal	EACH	2	\$ 5,000	\$ 10,000
Temporary Erosion Control	LS	1	\$ 5,000	\$ 5,000
Quarry Spalls for End of Wall Transitions	CY	10	\$ 100	\$ 1,000
				\$ -
<b>Sub-Total</b>				<b>\$ 362,000</b>
WA State Sales Tax 9.2%				\$ 33,304
Construction Contingency 15%				\$ 54,300
<b>Total Construction Cost</b>				<b>\$ 449,604</b>

**Notes:**

1. Assumes 150-foot-long soil nail section, average 9-foot exposed height.
2. Assumes 20- to 30-foot-long soil nails drilled and grouted.
3. Assumes 4-inch-thick shotcrete facing with drainage board.
4. Excludes roadway closure/signage.
5. Excludes survey.
6. Excludes geotechnical special inspections.
7. Excludes roadway restoration/re-paving or other drainage improvements.
8. Total costs rounded to nearest \$1,000

**Table F-3. Engineer's Opinion of Probable Cost for Conceptual Design - Anchored Mesh**

Project No. 210516-D, Bahia Vista Roadway Stabilization, Kitsap County, Washington

Item Description	Unit	Quantity	Unit Price	Total
Soil Nails for Anchored Mesh Slope	EACH	50	\$ 3,500	\$ 175,000
Anchored Mesh and Turf Reinforcement Mat	SF	1700	\$ 20	\$ 34,000
Soil Nail Verification Tests	EACH	3	\$ 3,600	\$ 11,000
Soil Nail Proof Tests	EACH	6	\$ 1,500	\$ 9,000
Seeding	SF	1700	\$ 0.25	\$ 1,000
Guardrail	LF	150	\$ 70	\$ 11,000
Guardrail Terminal	EACH	2	\$ 5,000	\$ 10,000
Temporary Erosion Control	LS	1	\$ 5,000	\$ 5,000
Quarry Spalls for End of Slope Transitions	CY	10	\$ 100	\$ 1,000
<b>Sub-Total</b>				<b>\$ 257,000</b>
WA State Sales Tax 9.2%				\$ 23,644
Construction Contingency 15%				\$ 38,550
<b>Total Construction Cost</b>				<b>\$ 319,194</b>

**Notes:**

1. Assumes 150-foot-long anchored mesh slope section average 9-foot exposed height.
2. Assumes 4-inch diameter, 20- to 30-foot-long soil nails, drilled and grouted.
3. Includes Tecco Mesh or Equivalent, Boundary Ropes and Anchors, Spike Plates
4. Excludes roadway closure/signage.
5. Excludes survey.
6. Excludes geotechnical special inspections.
7. Excludes roadway restoration/re-paving or other drainage improvements.
8. Total costs rounded to nearest \$1,000

## **APPENDIX G**

### **Preliminary Soldier Pile Wall Design**

UNITS: Width, Spacing, Diameter, Length, and Depth - ft; Force - kip; Moment - kip-ft  
Friction, Bearing, and Pressure - ksf; Pres. Slope - kip/ft<sup>3</sup>; Deflection - in



## **APPENDIX H**

### **Report Limitations and Guidelines for Use**

# REPORT LIMITATIONS AND GUIDELINES FOR USE

## Geoscience is Not Exact

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The geoscience practices (geotechnical engineering, geology, and environmental science) are far less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or property, you should contact Aspect Consulting, LLC (Aspect).

## This Report and Project-Specific Factors

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Aspect's services are designed to meet the specific needs of our clients. Aspect has performed the services in general accordance with our agreement (the Agreement) with the Client (defined under the Limitations section of this project's work product). This report has been prepared for the exclusive use of the Client. This report should not be applied for any purpose or project except the purpose described in the Agreement.

Aspect considered many unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you;
- Not prepared for the specific purpose identified in the Agreement;
- Not prepared for the specific subject property assessed; or
- Completed before important changes occurred concerning the subject property, project, or governmental regulatory actions.

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

## Reliance Conditions for Third Parties

---

This report was prepared for the exclusive use of the Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual limitations. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with our Agreement with the Client and recognized geoscience practices in the same locality and involving similar conditions at the time this report was prepared.

## Property Conditions Change Over Time

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This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by events such as a change in property use or occupancy, or by natural events, such as floods,

earthquakes, slope instability, or groundwater fluctuations. If any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

## **Geotechnical, Geologic, and Environmental Reports Are Not Interchangeable**

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The equipment, techniques, and personnel used to perform a geotechnical or geologic study differ significantly from those used to perform an environmental study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions, or recommendations (e.g., about the likelihood of encountering underground storage tanks or regulated contaminants). Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

We appreciate the opportunity to perform these services. If you have any questions, please contact the Aspect Project Manager for this project.